



WILLIAM PATERSON
COLLEGE

CATALOG 1978-79-80

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The William Paterson College of New Jersey

300 Pompton Road, Wayne, New Jersey 07470

PROGRAM CHANGES

The College reserves the right to make changes of any nature in its academic program, courses, schedule or calendar. With respect to such changes, students have a continuing right to pursue programs in the form which applied at the time of their matriculation or to choose program changes that occur subsequently.

The courses, programs, and other information contained in this catalog are as reliable as possible. The official register of courses offered and programs provided are maintained in the Office of the Registrar and may be acquired through that office or the Office of the Director of Advisement.

EQUAL OPPORTUNITY STATEMENT

In compliance with Section 504, paragraph 84.8 of the Federal Rehabilitation Act of 1973, it is the policy of the College that in all matters concerning the recruitment, selection, and admission of students, and in all matters relating to their employment with, or employment sponsored by the College, no person shall be discriminated against for reasons of race, creed, sex, national origin, religion, political affiliation, or handicapping conditions.

WILLIAM PATERSON

New Jersey's Nation Maker



William Paterson, for whom the College is named, was born in Ireland in 1745. He was raised in Princeton, from the age of two, where his father acquired considerable land holdings. Upon his graduation from the College of New Jersey (now Princeton) in 1763, he was instrumental in the founding of the Cliosophic Society. He studied law and began practice at the age of twenty three.

With the outbreak of hostilities in 1775, Paterson served as a delegate to the Provincial Congress, subsequently to become its Secretary, which prepared the original State Constitution. He was the first Attorney General of New Jersey, serving until 1783. He was also a signer of the Constitution as a Federal Convention delegate in 1787.

As New Jersey's first Senator in 1788 Paterson was instrumental in establishing the supremacy of the U.S. Supreme Court to review state court rulings. Later, as the State's second Governor, he devised a legal system for the State and was active in supporting Alexander Hamilton's efforts to establish a manufacturing center which ultimately became the City of Paterson in Northern New Jersey.

In 1793 Paterson was appointed to the U.S. Supreme Court by President George Washington and served with distinction as an Associate Justice until his death in 1806. For Paterson, the struggle was not for liberty *or* law, but rather, for liberty *and* law.



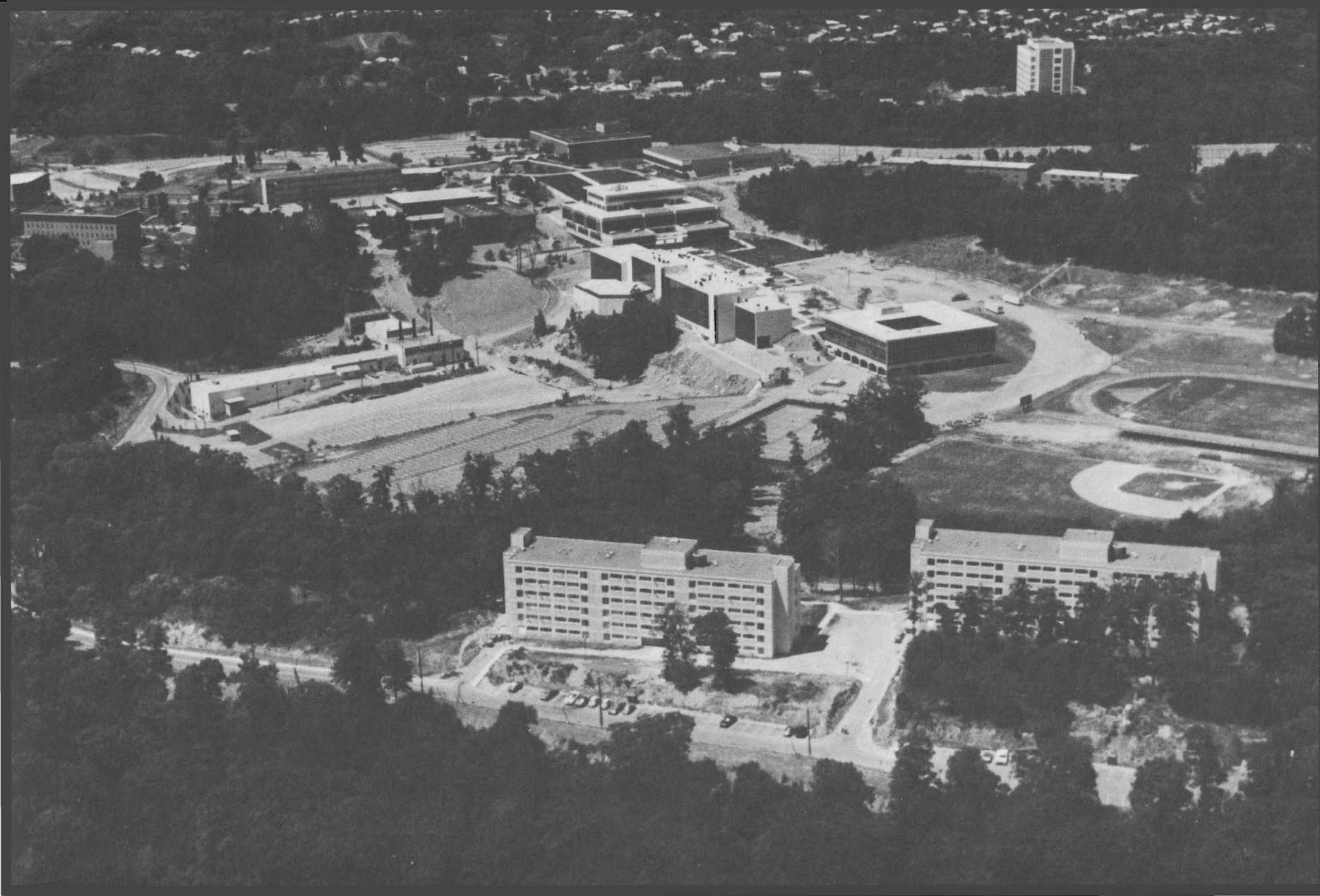
PRESIDENT'S MESSAGE

William Paterson College was founded in 1855 as a "normal school" and has undergone many changes during its history, but none so dramatic as those of the past ten years. During that period, the college was transformed from a state teacher training college to a comprehensive, multi-purpose, state institution of higher learning. The faculty was expanded to include professors in all the liberal arts and professional disciplines. Also, during this period, construction was completed on the most modern college facilities; library, student union, science building, art center, etc.

Although the scope of the college's offerings has multiplied and the size trebled, WPC retains many of the friendly and personal qualities of the small institution it was just a few years ago. From the warmth of the student affairs dean, through the responsive programs, to the ambiance of a 250 acre hilltop campus, the college is dedicated to enhancing the whole individual.

We hope to fulfill our responsibilities to the student and to society by offering a pleasant and stimulating experience which prepares students to enjoy and improve the quality of life. This catalog provides a wealth of information about that experience which is William Paterson College. We invite you to confirm and embellish it personally—by visiting us.

Seymour C. Hyman
President



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PART I: THE COLLEGE

OVERVIEW

THE COLLEGE HISTORY

William Paterson College has had a long and varied history of service to the people of New Jersey. Founded in 1855 in downtown Paterson as a city normal school, the college maintained that connection for nearly 70 years. As the school came under the control of the State in 1923, its programs grew in variety and were gradually expanded to a four-year sequence. In 1937 the college became New Jersey State Teachers College at Paterson, while the institution continued in its mission, the preparation of elementary school teachers. In 1951 the college moved to occupy its present location, a wooded hilltop in the Northeastern corner of Wayne with portions of the grounds in the municipalities of Haledon and North Haledon. From this central location, just outside the city of Paterson and only 20 miles west of New York City, the college is easily accessible to members of urban, suburban, and rural communities. The institution became Paterson State College in 1958, and by 1963, offered 12 major programs at both elementary and secondary levels. In 1966 the college began offering a baccalaureate program in nursing and a variety of major and minor programs in the liberal arts. The college was renamed The William Paterson College of New Jersey in 1971, honoring the distinguished New Jersey associate justice of the U.S. Supreme Court in the eighteenth century. The name change coincided with the college's transformation into a multi-purpose, regional state institution, offering graduate and undergraduate programs.

CAMPUS FACILITIES

The Sarah Byrd Askew Library is a major educational resource on campus. It is an openstack library arranged in a modified subject division based upon the Library of Congress classification system. The two upper levels comprise the library proper.

On the lower level is located the audiovisual department of the college.

At present, the Library has over 245,000 volumes, including a comprehensive reference collection. The Special Collections Division has over 655 first editions of literary works by nineteenth and twentieth century English and American authors. The Curriculum Materials Room houses approximately 28,500 juvenile books, public school textbooks, courses of study and other teaching aids. Subscriptions to nearly 3,000 periodicals and 42 newspapers provide a well-rounded source of information in all the areas covered by the college curriculum. The large collection of bound periodicals is supplemented by microfilm editions of both periodicals and newspapers with *THE NEW YORK TIMES* available from the first year of its publication (1857) to date. The Library subscribes to the complete services of ERIC (Educational Research Information Center) and AMERICAN PERIODICAL SERIES I and II. The Library owns several readers for microfilm and microfiche. Microfilm reader-printers, photocopy machines, and typewriters are available for use at a small fee.

The Library is professionally staffed and service oriented, so that students are assured of competent assistance in the use of its resources. When day and evening classes are in session and the dormitories occupied, it is open 80 hours per week.

Students must register with the Library to obtain or renew their library cards for the current academic year.

William A. Caldwell Plaza, located at the center of the campus, is an open forum which joins Ben Shahn Hall, Science Hall, and the Student Center.

Garret Hobart Manor is the former home of the family of Garret Hobart, the 24th vice-president of the United States. One of the last remaining examples of the "Victorian castle" architecture, popular in the area during the 19th century and former center of Paterson's social and political activity, the building is recognized as a

national and state historic site as Ailsa Farms, its earliest known name. "The Manor" contains the Educational Services, Registrar, Admissions, and Academic Advisement offices.

Hobart Hall, located across Pompton Road from the main campus, is connected to the main campus by a footbridge. The Special Education Division Office, the Speech Pathology and Communication Faculty offices, speech pathology clinics and laboratories, the child care center, campus radio station, television studios, filmmaking laboratory, and classrooms are located here.

Hunziker Hall and its addition, known as The Wing, accommodate the College of Arts and Sciences office, Teacher Education Division office, and the offices of the Teacher Education and Reading and Language Arts Faculties. Also located in the building are special education clinics and laboratories, the School of Nursing and Allied Health demonstration hospital and learning resource center, the language laboratory, a little theatre, and classrooms.

Clair S. Wightman Memorial Gymnasium houses the athletic director's office and physical education facilities, including gyms, a swimming pool, and classrooms. The Physical Education Faculty offices are located here.

Robert H. Morrison Hall houses the President's Office and the offices of the following: Vice President for Academic Affairs, Vice President for Administration and Finance, Business Services, Purchasing, Facilities, Information and Publication Services, Institutional Research and Planning, and Personnel. Also located in Morrison Hall is the data processing and computer center.

Pioneer and Heritage Halls are mid-rise student resident halls, perched atop a rock cliff in a corner of the campus. The air-conditioned buildings offer apartment-style living, complete with furnishings and appliances, to 530 students. The halls provide the privacy and responsibilities of a personal abode with the conveniences of dormitory living. The Housing Services office is located in Pioneer Hall.

Frederick M. Raubinger Hall contains the offices of the College of Human Services, Division of Field and Simulated Experiences, Urban Studies Division, Continuing Education, Field and Laboratory Experiences, Cooperative Education, and Graduate and Research Programs. Classrooms and the offices of the following faculties are also located in this building: Black Studies, Early Childhood, Urban Affairs, Elementary Education, Secondary Education, and School Personnel Services.

Benjamin Matelson Hall is the location for the Student Affairs office and the offices of the following student services: Placement, Counseling, Financial Aid, Evening Division Counseling and Veteran's Affairs. The College Security, Educational Opportunity Program, and Humanities Division offices are also here, as are the offices of the following faculties: English, Foreign Languages, History, and Philosophy.

Wightman Field is a lighted athletic field complex, housing soccer, baseball, football, and softball fields, bleachers, a permatrack, and lighted tennis courts. A locker facility is located adjacent to Wightman Field.

Coach House Theatre accommodates Theatre Faculty offices, set-making and costume-design facilities, and a cabaret theatre.

Science Hall, which houses the offices of the Division of Mathematics and Natural Sciences and the Division of Social and Behavioral Sciences, provides modern laboratories, classrooms, and research facilities for the study of the sciences. Also included are two large lecture halls equipped with modern audio-visual instructional facilities. The Environmental Studies office is located here, as are the offices of the following faculties: Biology, Chemistry, Mathematics, Physics/Earth Science, Psychology, Political Science, and Sociology/Anthropology.

Ben Shahn Hall holds the Fine and Performing Arts Division office, Art Faculty offices, and art galleries, studios, and classrooms for sculpture, crafts, painting, ceramics, graphics, and textiles.

Marion E. Shea Center for the Performing Arts houses the Music Faculty offices; a 1,000 seat auditorium; band, orchestra and choral practice rooms, and classrooms.

The Student Center is the focal point for campus activity. It features game rooms, television and stereo-equipped lounges, a snack bar, pub, full service bank, and dining facilities. Also housed in the structure are student government, student newspaper, and other student offices; conference rooms; a college bookstore; a ballroom, and the Student Activities and Alumni Offices.

Wayne Hall holds the College Senate Room, food service facilities, and meeting halls.

Kenneth B. White Hall holds the offices of the School of Nursing and Allied Health and the Administrative Studies Division, along with the offices of the following faculties: Health, Nursing, Economics/Business, Educational Administration, and Public Safety Administration. The student health center is located here.

Computing Services — Computing services on campus are provided through the batch facility in Morrison Hall and the time sharing terminal laboratory in Science Hall. The College is a member of the Educational Information Services statewide computer network which supports multilanguage, high speed service for administrative and academic users.

Academic programs, available to students, cover nearly all curricular fields and user interests. For more information contact the Director of Computer Services in Morrison Hall or the coordinator of academic computing in Science Hall.

ORGANIZATION

The undergraduate faculty is organized in three major components: The College of Arts and Sciences, The College of Human Services,¹ and The School of Nursing and Allied Health.

College of Arts and Sciences

The college consists of four divisions and

offers a range of major areas of study in the Fine and Performing Arts and Communications, in the Humanities, in Mathematics and Natural Science, and in Social and Behavioral Sciences. Interdisciplinary studies are also provided through the college.

College of Human Services

The college is made up of five divisions offering major areas of study, certification and curricula in Administrative Studies, Field and Simulated Experiences, Special Services, Teacher Education, and Urban Studies.

School of Nursing and Allied Health

The major offering includes a fully accredited professional program in nursing and a major in Health Science, both supported by a concentration in the biological and physical sciences and a broad base of liberal studies.

STUDENT AFFAIRS

All students are provided with a comprehensive and professional services program, with staff available to assist in the areas of housing, financial aid, health, career counseling and placement, and counseling. A rich and varied program of student activities includes academic, recreational, cultural, and social clubs and organizations. The student activities and Student Center fees support a student government association, the Student Center facility, and a full range of events and special entertainment activities throughout the year.

SPECIAL ORGANIZATIONAL FEATURES

THE DIVISION OF CONTINUING EDUCATION

Donald P. Duclos, Director

The College maintains an undergraduate Continuing Education Division for students

See footnotes, page 249.

who find it convenient to attend classes only in the late afternoon, evenings, and Saturday mornings. Approximately 28 major programs are available to such students on a full-time or part-time basis.

The chief functions of the Division are the following:

1. To enable qualified high school graduates who find it impossible to attend full-time day college to obtain a college education.
2. To enable the student who has been out of school for a few years to begin his college studies more slowly and ease his adjustment to the demands and disciplines of higher education.
3. To enable certified teachers to seek alternative or additional certification.
4. To enable persons holding a baccalaureate degree to pursue a certification sequence to qualify for teaching in the public schools of New Jersey.
5. To provide an opportunity for local citizens to pursue a non-degree program in continuing education.
6. To offer special interest service courses for the community-at-large.
7. To provide second career options in areas of specialization not covered in the College's graduate programs.
8. To provide the opportunity for those who already hold a bachelor's degree to pursue a second undergraduate degree.

Students who register for 12 or more credits are classified as full-time; those who register for 11 credits or less are classified as part-time.

Students admitted to this Division are primarily evening undergraduates but are allowed to register for day classes on a space-available basis.

SUMMER SESSIONS

M. Ardell Elwell, Acting Dean of Graduate and Research Programs

Donald P. Duclos, Director of Continuing Education

The Division of Continuing Education and the Graduate Division operate two separate day and evening sessions during the summer months. The Pre-Session is a four-week program during the month of June, during which a limited variety of

courses is scheduled. The regular Summer session of six weeks duration makes available to regularly enrolled students and visiting students a more extensive offering of courses.

OFF-CAMPUS EXTENSION CENTERS

M. Ardell Elwell, Acting Dean of Graduate and Research Programs

Donald P. Duclos, Director of Continuing Education

Graduate and undergraduate extension centers will be organized upon request in communities in Sussex, Passaic, and Bergen counties. The general policy governing the establishment of an extension center is that there be sufficient interest and enrollments in courses to be offered to justify the programming of such courses.

SEMESTER ABROAD

Donald P. Duclos, Coordinator

This 15-credit program is open to those with sophomore or junior class standing and involves directed study and individual research at 1) the University of Copenhagen, Denmark, under the direction of the Danish International Student Committee, or 2) selected colleges in Great Britain under the direction of the Council for International Education.

To qualify as an applicant, the student must have a G.P.A. of 2.5 or better on a 4.0 scale, and must be approved by a review committee selected from the College Staff. Students who use this experience in any way related to their major programs must also receive authorization from their major department. Additional information is available in Raubinger Hall from the Director of Continuing Education and The Institute for Innovation.

NATIONAL STUDENT EXCHANGE PROGRAM

Donald P. Duclos, Coordinator

Currently there are 32 institutions participating with the William Paterson College in providing a year of study, situated in respective parts of the United

States, including Hawaii. Registration, room, and board as required are arranged with the host institution. To qualify for the exchange year, the William Paterson student must have a 2.5 GPA, and be approved by the appropriate administrative offices. The contact for application forms and other assistance is the Director of Continuing Education and The Institute for Innovation in Raubinger Hall.

ALUMNI ASSOCIATION

Nancy Thompson, Coordinator

Every student who earns a degree from William Paterson College is an alumnus of this institution and is considered a member of the Alumni Association. The Association attempts to maintain a steady contact with all known alumni, to keep up with changes in status and location, to inform alumni of what is going on at the college, and to promote the interests of the college.

The Association raises funds for scholarships, special projects and for the college development fund, serves on various college committees, and sponsors some activities like the reception at the NJEA Convention, Carnival, Homecoming (in cooperation with SGA), senior and special awards, and class reunions in the spring honoring graduating classes every five years.

The Alumni Association is financed through an Annual Fund which solicits contributions from all alumni. For a basic contribution of \$5.00, members receive an alumni decal and a current membership card, which entitles them to a library card and student admission at all events.

The publication of the Alumni Association "the Spotlight", is published four times a year and is sent to all alumni of William Paterson College. The Association also runs an extensive Travel Program which is available for alumni and their families.

Additional information about the Alumni Association can be obtained by contacting the Alumni Office.

GRADUATE PROGRAMS

M. Ardell Elwell, Acting Dean of Graduate and Research Programs

The College offers quality degree programs leading to degrees in Master of Arts, Master of Science, and Master of Education.

Detailed information about programs, course offerings, and admission requirements are set forth in the graduate catalog which may be obtained by writing to the Graduate Admissions Office.

EDUCATIONAL SERVICES

James J. Barrecchia
Director of Educational Services

Educational Services provides the student with a continuum of services which include all admissions procedures for undergraduates, advisor assignments and change of major guidelines for undergraduates, and all registrations, grades, records, and transcripts for both undergraduate and graduate students. Students receive these services from the time they apply to the college and thereafter.

THE ADMISSIONS OFFICE

Dennis Seale, Director of Admissions

Admissions policies are developed at The William Paterson College and may vary from year to year. Applicants are urged to consult with an admissions officer for specific information.

Tuition and fees and refund policies are established by the Board of Higher Education and are subject to change at any time.

ADMISSIONS

To be admitted to the William Paterson College as an undergraduate student an applicant must (1) be a graduate of an approved high school, or (2) hold a high school equivalency certificate, and (3) have normally taken college board examinations. Students are admitted for the semester which begins September each year. When space is available, students may be admitted for the spring semester.

Admission requirements and procedures vary slightly for three groups of students:

(1) those entering the freshman class as full-time students, (2) those entering the freshman class as students in the Division of Continuing Education, and (3) those entering as transfers with advanced undergraduate credits into either division.

APPLICATION PROCEDURE

Students seeking admission to an undergraduate curriculum, whether for full-time or part-time study, must submit a completed application form, which may be obtained from the Director of Admissions, The William Paterson College, 300 Pompton Road, Wayne, New Jersey 07470. The completed application must be accompanied by a \$10.00 fee (check or money order) made payable to The William Paterson College. This fee is non-refundable and will not be applied toward any other fees or charges. Because application deadlines are subject to variation from year to year, a current admission calendar is sent with each application. Generally, full-time freshmen and transfer students should file applications before February 1 preceding fall admission. Typical dates for admission to the Division of Continuing Education are listed elsewhere in this section.

REQUIRED ACADEMIC PREPARATION

The applicant will ask his secondary school official to send to The William Paterson College a transcript indicating that the applicant has been graduated or will be graduated during the current academic year from an approved secondary school.

To be eligible for consideration for full-time admission, applicants are required to have taken a college preparatory course of studies in high school with at least 14 of the required 16 units in college preparatory subjects.

Specific distribution requirements include:

English	4 units
C.P. math	2 units
social studies.....	2 units
lab. science.....	1 unit
additional	
C.P. subjects	5 units
electives.....	2 units

Students planning to major in mathematics or science are expected to offer more than

the minimum required units in these subjects. Applicants for the nursing curriculum must have completed a full year of both biology and chemistry. Requirements further include a recommendation for college study by the high school principal, guidance counselor, or other authorized person.

Prospective students who have a New Jersey equivalent high school diploma may present this diploma in place of the specific requirements stated above.

ENTRANCE EXAMINATION

All applicants for admission to full-time study must take the College Entrance Examination Board's Scholastic Aptitude Test (CEEBSAT) in January of the senior year or earlier. Achievement tests are not required.

In applying for the College Entrance Examination Board Test, applicants must indicate that the results are to be sent to The William Paterson College, Code 2518. Forms of application for this test may be secured from the high school guidance office.

Applicants for admission to the Division of Continuing Education are urged to take this examination so that all admission requirements are met before classes begin. All such applicants, currently in high school or who have completed high school in the five year period prior to college entrance, must take CEEBSAT.

Prospective students applying to the Division of Continuing Education who have been out of high school for more than five years may have the opportunity to seek admission as a matriculated student. Decisions for admissions will be made using other available criteria.

With the exception outlined above in the entrance examination requirement, all applicants to the College must meet the same standards and complete the same admission procedures.

NOTICE OF DECISION

All announcements on admission decisions will be made on a rolling basis before April 15. No decisions will be made until all parts of the application are filed with the Admissions Office.

An offer of admission is conditional upon satisfactory completion of high school and

satisfactory physical health as indicated on the College medical form sent with the admission offer. To accept an offer of admission, the applicant must pay the required acceptance deposit (see below).

MEDICAL EXAMINATION

If an offer of admission is accepted, the applicant must provide evidence of satisfactory physical health. A medical report form is sent with the acceptance letter.

ACCEPTANCE DEPOSIT

Upon notification of tentative acceptance, the applicant will inform the College of his intention to enroll. The applicant must remit a deposit of fifty dollars (\$50.00) at the time he accepts the invitation to attend the College. This payment will be applied toward the general service charge (\$25.00 for each semester of the first year). This acceptance deposit is non-refundable and non-transferable.

TRANSFER ADMISSION WITH ADVANCED STANDING

Students seeking admission who have earned credits at other colleges may apply for admission with advanced standing to the Director of Admissions for full-time or part-time study. Applicants must have attempted a minimum of 24 credits with a minimum cumulative grade-point average of 2.0 (C). This is subject to revision each semester.

Applicants seeking admission to full-time status must take the following steps:

1. File an application for admission and all other credentials no later than March 1 for fall admission or November 1 for spring admission. The application for admission may be obtained at the College or by writing to the Director of Admissions. The application must be accompanied by a \$10.00 fee (check or money order) payable to The William Paterson College. The fee is non-refundable and will not be applied toward any other fees or charges.
2. It is the responsibility of the applicant to have official transcripts of all courses taken or schools previously attended forwarded to the Director of Admissions. Transcripts should be forwarded as soon as possible after

filing the application.

3. Upon notification of tentative acceptance, the applicant will inform the College of his intention to enroll. The applicant must remit a deposit of \$50.00 at the time he accepts the invitation to attend the College. This acceptance deposit is non-refundable.

Credits acquired at institutions fully accredited by regional accrediting associations are generally acceptable, provided such credits are appropriate to the student's program at this College. Courses for acceptance must have been passed with a minimum satisfactory grade (C or the equivalent). The College reserves the right to accept or reject credits earned in institutions not accredited by regional accrediting associations. Courses completed in non-accredited institutions may be validated for credit through Challenge Examination (see, Credit by Examination). Only courses completed at The William Paterson College are included in calculating the student's cumulative grade-point average.

Credit will be granted for courses taken at another college while the student is enrolled at The William Paterson College only when written permission to register for such courses is granted by the appropriate dean. Upon acceptance of the credits, the dean shall forward to the Registrar the approval to adjust the student's permanent record card.

LIMITATIONS ON CREDIT TRANSFER

All credits eligible for transfer for advanced standing are subject to the following limitations:

1. Usually not more than 64 credits may be transferred from a two-year college.
2. The last 30 credits required for graduation must be earned at The William Paterson College; 24 of these must be earned in on-campus courses.
3. Not more than 15 credits required for a major may be transferred.
4. Credits earned 10 years preceding the date of entrance will be accepted only at the discretion of the College, regardless of achievement.

Except where noted, all of the above rules, regulations, and procedures also govern

admission to the Division of Continuing Education, with the following additional exceptions:

1. Applications for fall admission must be filed on or before May 1; for spring admission on or before December 1; for summer admission on or before May 1.
2. The \$50.00 deposit fee is not required for students accepted into the part-time program.

ADVANCED PLACEMENT

An entering freshman who presents an outstanding score on an appropriate College Board achievement test or by other acceptable evidence may, with proper approval, enroll in an advanced course not generally open to freshman.

The William Paterson College participates in the Advanced Placement Program of the College Entrance Examination Board (CEEB). In this program, high schools offer accelerated or honors courses on a college-level to students in several fields: Biology, Chemistry, English, Foreign Languages, History, Mathematics, and Physics. Examinations covering these courses are administered annually by the CEEB and are graded by the Board on a scale of 5-1. The College accepts scores of 5, 4 or 3, and awards credit and, if desired, placement in intermediate courses according to demonstrated achievement.

THE ACADEMIC ADVISEMENT OFFICE

Mr. Alan H. Todt, Director of Academic Advisement

The Academic Advisement Office operates as a liaison between the student and his academic advisor. The primary function of this office is to assure that the student is assigned to an academic advisor in his major who will assist him in all academic matters and in the fulfillment of his curriculum requirements. The student who has not declared a major (General Arts and Sciences, formerly called Non-Declared) will be assigned a temporary academic advisor until such time as he declares a major. Other functions of this office include the processing of Applications for Admission to Major and the coordination of an Advisement System to facilitate student communication with academic advisors.

ACADEMIC ADVISORS

Assignment of Advisors — Full-Time Day Students

Upon admission to the college, a student is assigned an academic advisor in cooperation with the department Chairperson. The student will be notified of his advisor assignment by an Advisor Confirmation Card which will include the advisor's name, student's major, and other pertinent information. This information will be reconfirmed each semester. New students will be assigned a tentative advisor who will assist in the first registration process. Notification of permanent advisor status will be made during the first semester of attendance.

Assignment of Advisors — Division of Continuing Education

Because of a variety of schedules and times classes are held, permanent academic advisors are not assigned to Division of Continuing Education students. To assure the student a wide opportunity to contact an advisor, a schedule listing advisor's names, phone numbers, office numbers, and office hours is mailed each semester and is also available at the Student Center Information Desk and in Raubinger Hall. It is recommended that each student refer to this schedule and seek academic advisement at a time most convenient to himself and to his academic department. This listing is also published each semester in the Master Schedule. A Major Confirmation Card is mailed to each student once a semester as a verification of the student's major.

SECONDARY EDUCATION ADVISORS (CERTIFICATION)

Although there is no formal assignment through the Advisement Office for Education (certification) advisors, all students who plan to be certified to teach in one of the following should contact Mrs. Hartman in the Secondary Education Office during their Sophomore year:

ART	MATHEMATICS
BIOLOGY	MUSIC (Instrumental, Voice only)
BLACK STUDIES	POLITICAL
CHEMISTRY	SCIENCE
COMMUNICATIONS	SOCIOLOGY
ENGLISH	SPANISH
FRENCH	URBAN
GEOGRAPHY	EDUCATION
HISTORY	

SPECIALIZED ADVISEMENT

To meet the specialized needs for foreign students and the handicapped, lists of advisors with specific interests in these students are available through the office of the Dean of Students or the Advisement Office

LEARNING CENTER STUDENTS

All students who are admitted to the Special Admit Program (Learning Center) are assigned Dr. Sam Silas as their academic advisor. All Learning Center students are urged to contact him at (201) 595-2562 or 2563 (Barracks T-6).

CHANGE OF MAJOR PROCEDURES

Any student who desires to change his major must do so during the months of September, January or July *only*. Change of Major can be accomplished by filing an Admission to Major Department Form in the Advisement Office during those months. Acceptance to or rejection from an academic department is the decision of that department Chairperson. Upon acceptance to a new major, the student will be assigned to a new academic advisor and will be provided with information to assist in contacting that advisor. If the student's application to a new major is rejected, the student will be provided with a copy of his application stating the reasons for rejection and will also be given various alternatives to pursue.

General Arts and Sciences (formerly non-declared) students should declare a major as soon as possible but not later than the end of the Sophomore year.

ADVISEMENT FOR REGISTRATION

It is suggested that each student make an appointment with his advisor at the earliest convenient time prior to registration. It is advisable to utilize the Curriculum Control Sheet in planning all registration requests. Copies of control sheets can be obtained at the Advisement Office. Announcement of the availability of the Master Schedule will be made each semester. Upon receipt of the Schedule and the course request form, the student should consult his advisor regarding his course request and secure the advisor's signature on his course

request form. All special considerations (such as waiver of prerequisite, course overload, etc.) which may arise as the result of the advisement session should be discussed with the office of the appropriate Associate Dean and noted on the Course Request Card.

EXPLANATION OF MAJOR CODE

Break-down of Major Code List

- D=Day Student (full-time)
- E=Evening Student (part-time)
- A=Major does not offer certification
- B=Major does offer certification
- N/O=Major not offered part-time

UNDERGRADUATE MAJOR CODE

Full-time	Part-time
D11B	Elementary Education.....E11B
D12B	Early Childhood.....E12B
D13B	Junior High School.....N/O
D14B	Special Education.....E14B
D15B	Teacher LibrarianE15B
D17B	Physical Education (F).....N/O
D18B	Physical Education (M).....N/O
D20A	EnglishE20A
D20B	English (with certification)E20B
D22F	Liberal Studies-Fine and Performing Arts.....E22F
D22H	Liberal Studies- HumanitiesE22H
D22M	Liberal Studies-Math & Natural SciencesE22M
D22S	Liberal Studies-Social & Behavioral Sciences.....E22S
D25A	Spanish.....N/O
D25B	Spanish (with certification).....N/O
D26A	French.....N/O
D26B	French (with certification).....N/O
D30A	Business AdministrationE30A
D31A	AccountingE31A
D35A	EconomicsE35A
D40A	PsychologyE40A
D45A	Philosophy.....E45A
D50A	Mathematics.....E50A
D50B	Mathematics (with certification)E50B
D60A	Music-Applied BA.....N/O
D60B	Music-Instrumental BS (with certification).....N/O
D61A	Music-Music Studies BAN/O
D61B	Music-Voice BS (with certification).....N/O
D62A	Music-Jazz StudiesN/O

D65A	Art.....	E65A
D65B	Art (with certification).....	E65B
D67A	Dramatic Arts	E67A
D71A	Biology.....	E71A
D71B	Biology (with certification)	E71B
D73A	Chemistry.....	N/O
D73B	Chemistry (with certification).....	N/O
D74A	Environmental Studies.....	N/O
D78A	School/Community Health	N/O
D79A	Nursing.....	N/O
D80A	Geography.....	E80A
D80B	Geography (with certification)	E80B
D81A	History.....	E81A
D81B	History (with certification)	E81B
D85A	Political Science	E85A
D85B	Political Science (with certification)	E85B
D88A	Sociology.....	E88A
D88B	Sociology (with certification)	E88B
D90A	Speech Pathology.....	E90A
D90B	Speech Pathology (with certification)	E90B
D91A	Communications.....	E91A
D91B	Communications (with certification)	E91B
D95A	Black Studies.....	E95A
D95B	Black Studies (with certification)	E95B
	(Elementary Education, Early Childhood and Secondary Education)	
D96C	Urban Education- Early Childhood.....	E96C
D96E	Urban Education- Elementary Education.....	E96E
D96S	Urban Education- Social Studies.....	E96S
D97A	Public Safety.....	E97A
D99A	General Arts & Sciences.....	E99A
N/O	Continuing Education.....	E105
D106	Visiting.....	E106
N/O	High School Students Non-matriculated.....	E109

THE REGISTRAR'S OFFICE

Vincent Carrano, Registrar

All currently enrolled students are expected to register during the Registration Program held prior to each term.

Each student's program must be approved by his faculty advisor in the department in which he is a major and by his certification advisor, where applicable. His eventual eligibility for graduation will be determined by the Registrar's Office.

No student can be registered in or allowed to enter any course or section later than two weeks after the beginning of the semester. Persons registering during the late registration period are subject to a late registration fee of \$15.00.

STUDENT RECORDS

The Registrar's Office is responsible for the student's official academic record. A permanent record is kept of each student's academic progress.

TRANSCRIPTS

One free transcript is allowed each student upon graduation. A charge of \$1.00 per transcript should accompany a written order for each transcript requested at any other time.

No transcripts or other official documents are released until all obligations (financial and otherwise) to the college have been met.

COURSE NUMBERING

In general, undergraduate courses are numbered in such a way that they designate the year in which the student should be taking the course, e.g., 100=Freshman; 200=Sophomore; 300=Junior; 400=Senior. Though not an inflexible system, students should not elect a course which is numbered higher than their class level without expressed permission. A student may, however, elect a course numbered below his class level. The student must take at least half of his free electives in courses at, or above, the 200 level.

FINANCIAL INFORMATION

THE OFFICE OF BUSINESS SERVICES

Charles Farawell, Director of Business
Services

EXPENSES AND REFUND POLICY²

The registration procedure is not officially completed until all tuition and fees have been paid.

An undergraduate student taking 12 or more credits is considered a full-time student.

FULL-TIME UNDERGRADUATE TUITION AND FEES:

Tuition	
New Jersey Student	
...per credit.....	\$22.00
Out of State Student	
...per credit.....	44.00
Student Service Charge	
...per credit.....	1.50
Student Activity Fee	
...per credit.....	2.40
Student Center Fee	
...per credit.....	3.00
Late Fee	
(non-refundable).....	15.00

DIVISION OF CONTINUING EDUCATION: STUDENT TUITION AND FEES:

Undergraduate Tuition	
New Jersey Student	
...per credit.....	\$22.00
Out of State Student	
...per credit.....	44.00
Graduate Tuition	
New Jersey Student	
...per credit.....	45.00
Out of State Student	
...per credit.....	65.00
Student Service Charge	
...per credit.....	1.50
Student Activity Fee	
...per credit.....	.25
Student Center Fee	
...per credit.....	3.00
Late Fee	
(non-refundable).....	15.00

FULL-TIME AND DIVISION OF CONTINUING EDUCATION REFUND POLICY

Students withdrawing from a course must give written notice to the Registrar’s Office. The date the Registrar’s Office receives the written notice of withdrawal will determine

any refund due. This does not apply to non-refundable fees.

The refund schedule is as follows:

Withdrawal before the end of drop/add.....	100%
Withdrawal during the first third of semester.....	50%
Withdrawal after the first third of the semester.....	NONE

Cutoff dates for each of the above categories will be published in each semester’s Master Schedule. Students are urged to consult the Master Schedule for refund deadlines. Cutoff dates will be strictly enforced.

SPECIAL INSTRUCTIONS ON REFUNDS

1. Tuition and fees are refunded in full upon official withdrawal from classes cancelled by the college.
2. In computing refunds, the date of withdrawal is the date on which the Registrar of the College receives a written notice from the student.

LATE REGISTRATION FEE

A late registration fee of \$15.00 is assessed to students who register after the announced registration dates.

CHANGE OF PROGRAM

Students requesting program changes must be prepared to pay all additional tuition and fees which may be required at the time the program change is accomplished. All students entitled to a refund will have their refunds computed from the date the withdrawal form is received. All program changes involving payment of additional fees will require the payment of a \$15 late fee. This fee is non-refundable.

STUDENT PARKING FEE

Students may secure a decal for their car upon payment of a fee of \$10.00 for the school year. The fee for a motorcycle is \$1.00. This fee is non-refundable. Student cars and motorcycles without current decals permanently affixed are not permitted to park on campus.

Students must park their cars or motorcycles only in designated student parking areas. A violation of the parking regulations may incur a fine.

See footnotes, page 249.

STUDENT MEDICAL INSURANCE

The cost of voluntary student accident and sickness insurance is \$29.50 for an annual policy. This charge is subject to change.

MUSIC INSTRUMENT FEE

A music fee of \$5.00 per semester is charged for music instrument courses. This fee is non-refundable.

SPECIAL PROGRAMS

PRE-PROFESSIONAL PROGRAMS

DIVISION OF MATHEMATICS AND NATURAL SCIENCE

The Pre-Professional Committee (including Pre-Medical, Pre-Dental, Pre-Veterinary, and related fields of Biological Sciences) includes three members of the Biology Faculty, one member of the Chemistry Faculty and the Advisor of the Galen Society.

Students interested in a career in medicine, osteopathy or podiatry should send a letter of intent to the committee. The committee will generally request an interview with the student to ascertain the student's level of interest and chances of success. Evaluation forms will be sent to each faculty member who had the student in question in one of his classes. At the end of the junior year or at the beginning of the senior year, the Committee will prepare a letter of recommendation based, in part, on personal knowledge of the student, where possible, or on the evaluations of his classroom instructors. The student will provide the committee with a brief resume of his curricular and extra-curricular activities that could be used in the preparation of the letter. If necessary, a second interview will be requested. Based on available information the student will be assigned a rating based on the committee's judgment of his potential for success in his selected field.

Pre-Medical Preparation

Prospective medical students should acquaint themselves early with entrance requirements for medical schools by

consulting the handbook published annually by the Association of American Medical Colleges, **ADMISSION REQUIREMENTS OF AMERICAN MEDICAL COLLEGES**, and should read each year's issue to make sure that the requirements of the schools to which they plan to apply have not changed.

Pre-Medical students are advised to purchase the publication of the Association of Medical Colleges entitled "Medical School Admission Requirements." This can be purchased by mail from the Association at 1 DuPont Circle, N.W., Washington, D.C. 20036, at a cost of \$5.00.

All applicants to medical schools are required to take the Medical College Admissions Test. This test is administered twice a year, fall and spring, by the American College Testing Service. Students may obtain information by writing to MCATS, Box 414, Iowa City, Iowa 52240.

The following courses are the minimum requirements for the majority of medical schools: General Biology (8), General Chemistry (8), Calculus (8), Organic Chemistry (8), Physics (8). Strongly recommended: courses including English Literature, Foreign Languages, and advanced science courses.

Students are advised to elect as many of the required courses in science as possible in their freshman and sophomore years. Pre-Medical students must have their course of study approved by the Pre-Professional Committee of the Department of Biological Sciences.

Pre-Dental Preparation

Admission requirements to dental schools have been set by the American Dental Association. The following courses are the minimum requirements for pre-dental students: General Biology (8), General Chemistry (8), College Mathematics (8), Comparative Anatomy (4), Organic Chemistry (8), Physics (8), English (6). Some dental schools require, and others recommend, additional science courses. Three or four years of college are required for admission to dental schools.

Pre-dental students must have their courses approved by the Pre-Professional Committee of the Department of Biological Sciences.

Pre-Veterinary Medicine Preparation

Prospective Veterinary students should acquaint themselves early with the entrance requirements for veterinary schools by consulting the handbook published annually by the American Veterinary Medicine Association or the catalogs of the specific veterinary colleges. Since requirements do change, it is important to check the requirements annually.

The State of New Jersey has agreements with the following veterinarian schools to accept students who are New Jersey residents: Cornell University, University of Kansas, Ohio University and the University of Pennsylvania.

The following courses represent the minimum requirements for pre-veterinary students. Biology or Zoology: 8 credits; Chemistry, including Organic and Biochemistry: 16 credits; Math, including some analytic Geometry and Calculus: 6 credits; Physics: 8 credits; Microbiology: 3 credits; Genetics: 3 credits; English: 6 credits. There is a requirement for farm work or work with a veterinarian.

Required courses should be taken as early as possible and the course of study should be approved by the Pre-Professional Committee of the Department of Biological Sciences as early as possible.

DIVISION OF SOCIAL AND BEHAVIORAL SCIENCE

Pre-Law Preparation

There is not — nor can there be — a prescribed, single pre-law curriculum, for the student's plans should reflect his own interests, his individual strengths and weaknesses, the particular offerings of the College, and, of course, his individual objectives in studying law.

There is, then, no prescribed road to law school. In general, the pre-law student should concentrate on acquiring effective methods of study, communication, and thought. The acquisition of factual knowledge, although important, should not be the primary objective of pre-law study. Of course, these skills may be acquired in a number of different areas. Successful law students and lawyers have had undergraduate majors in almost any conceivable field.

Although the pre-law student, thus, can approach the study of law through avenues that appeal to his particular talents and interests, some specific recommendations can be made. Advanced English composition and a year of accounting may be considered as prerequisites for law study. Courses in mathematics, philosophy, and science are often useful in developing the capacity to think logically and analytically. In addition, mathematics and the natural sciences provide instruction in scientific methods, an appreciation of the importance of accuracy, and, in this modern era, some awareness of the significance of technology. Probably the social and behavioral sciences provide the major undergraduate concentration for the pre-law student. American and English constitutional history, economics, political science, sociology, philosophy, and psychology are frequently chosen subjects.

As long as the student is aware that there is no single pre-law curriculum, and as long as the student does not attempt to take all those courses as part of the pre-law preparation, selections from among the above-mentioned courses, taken with the counsel of an advisor, may substantially enrich his pre-law preparation.

DIVISION OF HUMANITIES

Humanities Honors Courses

The Humanities Division offers a series of interdisciplinary courses and individual study opportunities for academically talented students in English, philosophy, history, and foreign languages. The courses involving faculty from all these disciplines under the Associate Dean's direction, is meant to provoke new excitement in learning as well as to provide solid and comprehensive humanistic education.

Students must fulfill fifteen hours of Honors work while majoring in any of the field of English, philosophy, history, and foreign languages. Students outside the Humanities Division must apply to the respective Dean for special permission to enter the program. See page 105 for further information.

GENERAL EDUCATION STUDIES PROJECT

The General Education Studies Project

(also known as HSA 199, College Symposium) refers to a group of courses — special seminars *for freshmen only*. Each seminar is a 3-credit Liberal Studies course, and each is limited to 25 students. The instructors for the Project are specially chosen for their teaching abilities and for their participation in an evaluation of both the freshman year experience and the Liberal Studies curriculum at William Paterson College. In addition, students in each section of the course will play some role in the determination of course curriculum. Students selected for participation register for two seminars during the freshman year and gain six credits in partial fulfillment of their Liberal Studies requirements.

While the content of these seminars may shift from year to year, currently five areas of study are being programmed:

1. *Futures Modeling* in which students study the process of change, prediction, and systematic analysis.
2. *Master-Learner* in which individual faculty members present topics outside their specialties, topics which they always wanted to learn about. Students become a supportive learning resource to master the topic.
3. *Touchstone Text* in which one significant book read and studied together becomes the “touchstone” to generate and explore related topics, correlative readings, and experiences.
4. *Institutional Self-Study* in which students study the nature of complex organizations. The model will be William Paterson College as a complex institution.
5. *Research Tutorial* in which students will be assigned to a research project in the instructor’s discipline as research assistants. This area is an alternative way of introducing students to a particular discipline and of familiarizing them with research design.

The General Education Studies Project has been funded by a grant from the Fund for The Improvement of Post-Secondary Education.

BIOPSYCHOLOGY

Two grants from the National Science

Foundation have assisted the joint effort of the Biology and Psychology departments to develop a series of courses for students interested in the study of the biological bases of behavior, the emerging field of Biopsychology. At the present moment, these courses include Developmental Biopsychology, Neuroscience, Psychopharmacology, Behavior Genetics, and Current Topics/Research Methods in Biopsychology.

A student may fashion a program in Biopsychology by majoring in one of the sponsoring departments, minoring in the other, and adding both the special series of new courses and others by directed advisement. Appropriate adjustments in major and minor requirements will be arranged by the Project Director in cooperation with the curriculum committees of the two departments.

By the end of his or her sophomore year, the student interested in Biopsychology should have taken, at a minimum, General Biology I and II, General Psychology, Experimental Psychology I and II, and the requisite courses in Chemistry and Mathematics by advisement. The program is demanding, but particularly rewarding for those contemplating either graduate or professional (medical, dental, veterinary) study, or careers in research.

COOPERATIVE EDUCATION

William Paterson College believes Cooperative Education is a dynamic educational experience that adds relevancy to the academic environment and performs vital functions for the student, the employer, the institution by integrating classroom theory and practical work experience.

Participating students receive assignments and training that enhance their marketable skills. Also, they receive an opportunity for a position with a company or agency upon successful completion of the program. See page 105 for further information.

GENERAL ARTS AND SCIENCES STUDENTS

Students who exercise their option not to select a major program at admission time are classified as General Arts and Sciences students. Such students should normally

attempt to complete their Liberal Studies requirement during the freshman year and should normally apply for admission to a major program during the sophomore year. Applications for admission to a major program are available in the Advisement Office.

INTERNATIONAL MANAGEMENT

Students of exceptional ability and interest become eligible to enter the Honors Program in International Management during the second semester of their sophomore year. The program combines a 44 credit core of both regular and special honors section courses in Economics, Business Administration, Political Science, and Accounting with foreign language and area studies (History, Geography, Anthropology, etc.) in either Latin American or Far Eastern affairs. Students successfully completing the program will graduate with a bachelor's degree in their major "with Honors in International Management."

At present, there are six (6) model curricula for students majoring in either Business Administration, Economics, Accounting, Political Science, History, or Foreign Languages. Interested freshmen and first semester sophomores should obtain copies of these models from the Office of Academic Advisement or the Program Director. A 3.0 average, at least two semesters study of the appropriate foreign language, and a 1 credit Sophomore Colloquium in International Management (featuring guests from the international business and diplomatic communities) are required for admission to the program.

Administered by the new School of Management, this program has been made possible, in part, by a grant under the Foreign Language and Area Studies title of the National Defense Education Act.

LIFE SCIENCE ETHICS

A critical area of national concern, Life Science Ethics covers such topics as patient's rights, euthanasia, informed consent, therapy and research in closed institutions (prisons, mental hospitals, etc.), behavior control, and genetic engineering. Hospitals, universities, private research labs, and government agencies have all established review

committees in recent years to pass on therapeutic and research procedures subject to ethical judgment, legal safeguards, and public policy.

Students at William Paterson who are contemplating future study and/or careers in the biological, behavioral, or health sciences, public health administration, or law, can benefit from a series of courses and course components in Life Science Ethics developed by members of the Philosophy, Psychology, and Biology departments under a grant from the National Science Foundation.

A student may also construct a 16 credit Honors Track in Life Science Ethics that may be *added* to majors in Biology, Psychology, or Allied Health, for example, or combined with a specially modified major in Philosophy. The new series of courses offered as a portion of that track include: (1) Ethical and Value Issues in the Life Sciences: an Overview; (2) Case Studies in Life Science Ethics; and (3) Seminar/Independent Group Study in Public Policy and the Life Sciences. A student who completes both his/her major and the Honors Track with a 3.0 average or better, and presents an appropriate project in the Seminar course, would graduate with a bachelor's degree in his/her major "with Honors in Life Science Ethics."

SENIOR GRADUATE COURSES

Certain introductory courses are open to both graduate and undergraduate students. These courses may be counted for graduate or undergraduate credit, but not both. An undergraduate student who wishes to take a graduate level course must satisfy the following requirements:

1. Have a cumulative average in the junior year of 2.75 or higher, with 3.0 or higher in the major field.
2. Have the support of the instructor teaching the course and the faculty chairperson for the student's major.

Where particular undergraduate courses required for graduation have been cancelled, Senior-Graduate courses may be substituted with the permission of the Dean of Graduate Programs and the Associate Dean of the Division concerned.

Graduate Courses (600 and 700 series) are limited to graduate students.

ACADEMIC REGULATIONS

It is expected of every student that he will know and comply with the policies and regulations as they are stated in this catalog. It is also expected that he will be aware of and responsible for his scholastic standing at all times as well as for the appropriate number of credits accumulated toward the number required for graduation.

The College reserves the right to introduce changes in the rules regulating admissions, programs and instruction, and graduation. Changes go into force when determined by the proper authorities and apply to prospective students as well as to those already enrolled at the College.

The administration of academic regulations is the function of the Dean of the particular college or school. A student may request in writing (through the faculty chairperson to the appropriate dean) an exemption from or a waiver of a particular academic regulation.

CREDIT

The College is organized on the semester plan. A credit is a unit or measure of curricular work, certifying the successful completion of a course of study. Generally, a credit is awarded for one hour of class attendance a week for one semester. In some studies, such as studio or laboratory courses, several hours may be required to earn one credit.

ATTENDANCE

Students are expected to attend regularly and punctually all their classes, laboratory periods, and other academic exercises. Students are responsible for all of the work required in courses. The instructor shall determine the effect of absences upon grades and may permit or deny the privilege of making up work, including examinations within the time limits of the semester.

In the event of a prolonged absence, a student is advised to consult with the Office of the Dean of Students to avoid the possibility of academic penalty.

GRADES

- A — A grade of A indicates an achievement of distinction. It is never lightly given nor lightly deserved. It marks work of unusual and superior quality expressed in an exemplary manner and includes all or most of the factors which determine the grade of B. Four grade points.
- B — A grade of B indicates more than the acceptable standard of achievement. It involves a degree of excellence in some aspect of the following areas: completeness and accuracy of knowledge, sustained and effective use of this knowledge, ability to work independently in the specific area, originality in quality and execution. Three grade points.
- C — A grade of C indicates an acceptable standard of work for graduation. It recognizes such factors as: familiarity with course content and methods of study, in the actual use of such content and methods, participation with a discriminating and active awareness of the course work, and the ability to express one's knowledge and opinions in intelligible English. Two grade points.
- D — A grade of D indicates an inability to meet one or more of the standards for satisfactory work. Although credit may be granted for this grade toward graduation, it reflects a quality of performance that is less than acceptable. One grade point.
- F — A grade of F indicates that work of sufficient quality and quantity has not been presented by the student. No grade points.
- P — Passing. Acceptable work presented in certain courses and the grade not computed in determination of grade-point average.
- INC — Incomplete. Indicates that the student has not completed for valid reasons such as severe illness or other circumstances beyond his control, all of the work required in a course.
- N — A grade assigned for non acceptable performance in certain courses. This

grade is not assigned when a student's work is clearly of "F" quality.

WD — Withdrawn. Official withdrawal with no effect on grade-point average.

GRADE REGULATIONS

A report of the student's grades is entered on his official record and is not altered except upon the authorization of the appropriate dean after consultation with the instructor or his department chairperson. A student who fails to pass a given course may repeat it. However, the original F grade is not expunged.

In some cases, the privilege of re-examination is permitted; the semester grade cannot be higher than a D. A course in which a D is received *may not be repeated*.

Grades of INC must be removed from the record within the 30-day period immediately following the close of the semester. All grades of INC not changed by the appropriate time to a letter grade upon the recommendation of the proper faculty member must be automatically transformed to the grade of F by the Registrar. Seniors, during their final semester, are not awarded incomplete grades so that they may be determined eligible for a degree and for graduation.

CLASS RANK

The class standing of students is determined by computing the total credit hours earned.

Sophomore — one who has earned at least 24 credits

Junior — one who has earned at least 58 credits

Senior — one who has earned at least 90 credits

PASS/FAIL OPTION

A student is allowed to register for a maximum of 12 of the necessary 120 credits required for graduation on a pass/fail basis. The student who exercises this option must indicate his intention at the time of registration and is not permitted to change his intention after the registration period has been completed. Nor may the student who has registered for a course be permitted to change his mind and exercise

the pass/fail option after the registration period. A student may not register for more than three credits a term on the pass/fail basis, and he may not exercise this option in courses required for his major program. Not included in the maximum count of pass/fail credits are those courses which are normally graded pass/fail for all students in the College (for example, Student Teaching)

A grade of P shall count in the number of credits earned but not in the cumulative grade-point average. A grade of F counts in the grade-point average.

Students who wish to exercise the pass/fail option are reminded of certain limitations in the concept and of potential difficulties which they may encounter. Not only are grades of P not counted in the student's grade-point average but also the student may find that grades of P are not transferable to other colleges and may not be recognized by some graduate schools.

COURSE CREDIT LOAD

Full-time Students

The normal registration for any semester is fifteen (15) credits, although up to 17 credits in some major programs may be carried without special approval. Registration for eighteen (18) or more credits per semester requires the written approval of the student's advisor, department chairperson, and the appropriate dean, and may be carried only under unusual circumstances and requires high academic standing.

A full-time student must be registered throughout the semester for a minimum of twelve (12) credits to be considered a full-time student. A student who registers for a minimum full-time load and then withdraws from courses, bringing his credit load below the minimum full-time requirement, shall have relinquished his full-time status and must apply for re-admission.

Part-time Students

Students admitted to the Division of Continuing Education who are pursuing a degree program on a part-time basis may carry up to 12 credits a semester without special approval.

Students who wish to register for more than 12 credits must have the formal

approval of the Director of the Division of Continuing Education.

Summer Pre-session and Summer Session

Students who register for the four-week summer Pre-Session may not carry more than 3-4 credits during the session. Students who register for the regular six-week Summer Session may register for a maximum of 9-10 credits.

This policy of maximum load applies equally to full and part-time students of The William Paterson College and to visiting students from other institutions.

ACADEMIC STANDING

The policy on Academic Standing is that approved by the Board of Trustees on August 30, 1976. Students who matriculated after that date are subject to that policy, whereas students who were proceeding continuously toward degrees before that may choose whichever policy is more favorable.

The basic principle is that any student whose Grade-Point Average falls below 2.0 is no longer in good standing. The guidelines below display what constitutes "good standing," "probationary," and "dismissed" status.

Procedures

Determination of student academic standing is made once a year, after completion of the Spring term. Students bear the responsibility for remaining in good standing. The College is under no obligation to warn students about

academic deficiencies or to alert them about probationary status when their cumulative grade-point average drops below 2.0. Students who assume probationary status (as the above guidelines provide) will be offered advice and direction.

Incomplete Grades and Academic Standing.

Students have thirty (30) days from the close of the semester to resolve INCOMPLETE grades. Failure to resolve INCOMPLETE grades will result in an automatic change of these INCOMPLETE grades to "F" which will be computed in the student's grade-point average. Probation and dismissal lists will reflect these changes.

Dismissal

After annual determination of student standing by the Registrar, dismissed students may no longer take courses in any division of the institution. Dismissed students who have registered for courses in a pre-session prior to receiving a dismissal notice will have their tuition and fees refunded and will be withdrawn from their courses. Appeals of dismissal decisions may be made in writing to the appropriate dean through the Registrar. This must be filed within 7 days after receiving a letter of dismissal from Academic Affairs. It is the responsibility of the students in their appeals to provide additional information or documentation beyond the grade-point average itself which might warrant temporary reinstatement. Appeal decisions should be rendered by the appropriate dean no later than August 15.

"ACADEMIC STANDING GUIDELINES"

CREDITS ATTEMPTED	GOOD STANDING	AUTOMATIC PROBATION	DISMISSAL
23 credits or less*	2.00 or better	Not Applicable	Not Applicable
24 to 30 credits	2.00 or better	1.99 to 1.20	1.19 or less
31 to 60 credits	2.00 or better	1.99 to 1.70	1.69 or less
61 to 90 credits	2.00 or better	1.99 to 1.90	1.89 or less
91 to graduation	2.00 or better	under 2.00 with one semester or term to achieve a 2.00	1.99 or less after the grace semester or term to achieve a 2.00

*Students with 23 credits or less are usually part-time students who need more than two (2) semesters to complete one academic year.

Grade-Point Average

A student's academic standing is indicated by his grade-point average. The average is determined by dividing the total number of grade points earned by the total number of credits attempted. Courses graded INC, WD, and P are not computed in determining the grade-point ratio. A = 4.0; B = 3.0; C = 2.0; D = 1.0; F = 0. E.g.,

	Credits Attempted	Credits Earned	Grade	Grade Points
Organic Bio Chemistry	4	4	A	16
Creative Writing	3	3	A	12
Origin of Cities	3	3	C	6
Abnormal Psychology	3	3	B	9
Social Movements	3	3	D	3
Independent Study.....	0	2	P	0
	16	18		46

Grade Point Average = 2.87

Only courses taken at The William Paterson College will be computed in determining the grade-point average.

Seniors who, during their senior year, fall below a 2.00 cumulative grade-point average will be permitted to take additional courses for a limited period of time (usually one semester or term) to achieve a satisfactory average. Seniors who fall into this category will be notified of probation or dismissal and must see the appropriate academic dean for consideration about continuing.

Reinstatement

Any student who, upon appeal, is reinstated is subject to such terms and limitations which are conditions to his or her reinstatement. A student's eligibility for co-curricular or extracurricular activities is determined by the sponsor of such activities, following, of course appropriate approval procedures.

Withdrawal from a Course

Students are permitted to withdraw officially from any course upon written request to the Office of the Registrar during the first third of the academic semester or term without grade penalty. After that date, a student is expected to complete the course for which he has registered and must receive a letter grade for the course. Mere non-attendance in a course does not constitute formal withdrawal and will result in a grade of F. The student is reminded that he must carry a total minimum of 12 credits throughout the semester to retain his full-time status.

Withdrawal from the College

Withdrawal from college may be initiated at any time prior to the last month of classes of each academic semester. Withdrawal from the college requires an exit interview with the Office of the Dean of Students.

Students who withdraw from the college or from all of their courses must make application with the Admissions Office for re-admission into the college according to the Admissions calendar for the year following, understanding that re-admission is not automatic and that enrollment and other considerations may not allow his return at that time. Normally re-admission can occur only for the fall semester.

Leave of Absence

Students who find it necessary to leave college for one or more terms may apply for an official leave of absence (if they qualify scholastically) and thereby maintain their status as an admitted full-time student. Leaves of absence are processed by the Office of the Dean of Students and require an exit interview with one of the Dean's assistants.

Scholastic Regulations

The College expects the student to be aware of and to be directly responsible for his academic progress. A student who is experiencing any kind of academic difficulty is advised to consult first with the

faculty member directly concerned. If for some reason his problem cannot be resolved, the student should consult his assigned academic adviser.

Upon admission to the college and to a major program, the student will be given a work program, outlining his particular requirements and recommending the sequence in which he should pursue those requirements. It is the student's responsibility to maintain his work program, keep it updated, and have it available each time he consults with his academic adviser and registers for the next semester. A student who misplaces or loses his work program may obtain a new copy from the Director of Advisement and must pay the standard fee if a transcript of his grades is needed in order to complete the new copy of his work program.

A student on probation who **WITHDRAWS** from the College but who subsequently desires re-admission, must apply according to the Admissions calendar for the year following, understanding that re-admission is not automatic and that enrollment and other considerations may not allow his return at that time. Further, a student previously accepted for a departmental major before withdrawal must again be accepted by that department or by another department before re-admission.

ACADEMIC HONORS

Dean's List — A student carrying a minimum of 12 credits who earns a grade-point average of 3.45.

Graduation Honors — Students graduating with a final grade-point average of 3.45 or better for all undergraduate courses are recognized as honor students with the following designations:

Average of 3.45-3.64 = cum laude

Average of 3.65-3.84 = magna cum laude

Average of 3.85-4.00 = summa cum laude

The Benjamin Matelson Memorial Award

The Benjamin Matelson Memorial Award is given each year to an outstanding graduating senior in the undergraduate evening program at William Paterson College. This award is a memorial to the

late Mr. Matelson, the creator of the evening division and for many years its director.

The Dr. Arno Wolf Memorial Award

The Dr. Arno Wolf Memorial Award is granted to the outstanding graduating senior in political science each academic year. This award is granted for academic excellence and meritorious service.

The Kent Award For Excellence In English

The Kent Award for Excellence in English is presented to the graduating English major with the highest G.P.A. in English and an overall G.P.A. of not less than 3.5.

The Clair R. Schulman Memorial Award

The Clair R. Schulman Memorial Award is granted to an outstanding graduating senior who has majored in Early Childhood.

The C. Kent Warner Memorial Award

One or two \$100.00 awards are given each year to the Biology major(s) with the highest average in Biology who have made an unusually high level of contribution to the Biology Department through their services. (Awards are determined by faculty vote.)

STUDENT LIFE AND SERVICES

Dominic A. Baccollo,
Dean of Student Services

The William Paterson College accepts and adheres to the premise that students are the chief reason for the existence of the college and are, therefore, a primary constituency of the college. Accepting this premise, the college has effected a series of steps to provide increased student representation in college affairs and to amplify the services rendered to the student.

STUDENT SERVICES

COUNSELING SERVICES

Dr. Robert Peller, Director

The Department of Counseling, located in Ben Matelson Hall, offers a wide range of

counseling services to students at William Paterson College. Staff members, trained in clinical psychology and guidance, are available to meet with any student who requests personal counseling, vocational counseling, readmission interviews, or leave of absence and withdrawal consultations.

Psychological counseling interviews are private and every effort is made to maintain confidentiality. Initial interviews are arranged, in most instances, within a few days of the students' requests. Emergency situations, of course, will be considered immediately. Students can contact and meet with a psychologist or counselor by calling 201-595-2257 or 201-595-2258 or by coming in person to the Counseling Office in Ben Matelson Hall.

Similar services are also available to part-time students by calling Mr. John Adams at 201-595-2170.

A psychologist is available, without charge, to discuss any deep personal conflicts that may be preventing the student from progressing at the rate of individual growth he has chosen. For this purpose, both short term individual and group psychotherapy will be offered.

FINANCIAL AID

Thomas A. DiMicelli, Director

APPLICATIONS FOR FINANCIAL ASSISTANCE

Information and applications for financial assistance may be obtained by writing to the Director of Financial Aid, The William Paterson College, 300 Pompton Road, Wayne, New Jersey 07470. All application forms must be returned to the financial aid office by May 1 (Benjamin Matelson Hall, Room 108).

All applicants must secure a Parent's Confidential Statement, furnish the required information, and mail it to the College Scholarship Service in Princeton for evaluation. Self-supporting students must file a Student Financial Statement. This form is available at the Financial Aid Office and should be mailed to the College Scholarship Service in Berkley, California.

Parents' Confidential Statements may be secured from a secondary school guidance office or from the College Scholarship

Service, P.O. Box 176, Princeton, New Jersey 08540.

The amount and type of financial assistance a student is awarded depends primarily upon need and those monies which are made available to this office for disbursement from federal and state sources.

No applicant will be considered unless an application is filed with the Financial Aid Office and a Parents' Confidential Statement is filed with the College Scholarship Service.

Financial assistance made available for student applicants are derived from federal and state sources.

The basic expenses for a commuting student are:

Tuition and Fees ²	\$ 700
Books and Supplies	150
Other (Recreation, Personal, Transportation)	1,950
Total	\$2,800

The basic expenses for a resident are:

Tuition and Fees ²	\$ 700
Books and Supplies,	150
Room and Board	1,550
Other (Recreation, Personal)	900
Total	\$3,300

Married students' budgets are also according to federal guidelines.

Exact needs of any individual can only be determined by an individual Needs Analysis Report and the above expenses are averaged for educational costs. Applicants will be required to reapply for assistance annually. However, recipients will normally receive assistance for their entire undergraduate career as long as they continue to demonstrate financial need and carry an academic Grade Point Average set forth by this institution.

Eligibility:

- A citizen of the U.S. or permanent resident.
- Accepted as a full-time matriculated student at the college.
- In need of Financial assistance.
- Planning to continue academic study for a B.A., B.S. at the institution and maintaining the required G.P.A.

FEDERAL SOURCES

National Direct Student Loan — low interest loans from \$100 to \$1,000 per year, at 3% interest, determined by need. The loan can be cancelled provided the student teaches in a public or non-profit private elementary or secondary school and, if the teaching is in the field of disadvantaged or handicapped children, loans are repayable over a ten-year period of time, beginning nine months after graduation or withdrawal from college.

Supplemental Educational Opportunity Grants — federal grants ranging from \$200 to \$1,000 for students with exceptional financial need. Grants can be no more than one-half the total assistance given a student and are only awarded in combination with other aid. (NDSL, State Scholarship, EOF).

College Work-Study Program — a federal program of employment for students from families with a limited income and need.

Nursing Student Loan Program — loans up to \$2,500 per year for nursing majors. These loans are repayable nine months after graduation. Interest is minimal and cancellation privileges are enjoyed for each year of nursing service in a public or other non-profit hospital.

Nursing Scholarship Program — grants up to \$2,000 per year for nursing majors of exceptional financial need.

Law Enforcement Educational Program — a program intended to develop professionalization in the criminal justice field through higher education. Direct financial aid is provided to students enrolled in colleges and universities. Grants will not exceed \$400 per semester of a total of \$1,200 the academic year, and grants are limited to criminal justice personnel only. Loans are available to criminal justice personnel preservice students planning to enter the field after graduation.

Basic Educational Opportunity Grants — A grant based on financial need, ranging from \$50 to \$1,000. All students must file a BEOG form.

STATE SOURCES

Educational Opportunity Funds — state grants ranging from \$250 to \$1,000 for

students with exceptional financial need. Grants must be awarded with other matching funds.

Student Assistant Program — a state program of employment for interested students who wish to work on campus.

New Jersey State Scholarship Program — scholarships awarded by the State Scholarship Commission. These awards cover the cost of tuition up to the annual limit of \$635.00. Application for this scholarship is made independently of the college and is made directly to the New Jersey State Scholarship Commission in Trenton, New Jersey. A student may apply for this scholarship as a high school senior or college freshman before the November 15 deadline.

State Student Loan Program — In 1959 the State created the New Jersey Higher Education Association Authority to aid New Jersey students in obtaining a college education. Applicants for student loans must meet the following qualifications: (1) New Jersey residency for six months prior to filing an application, (2) admitted to, or in regular fulltime attendance and in good standing at, an approved post-secondary institution of higher education, (3) demonstrated financial need as determined by Authority policy, (4) demonstrated high moral character, good citizenship and dedication to American ideals, (5) a United States citizen or having filed a Declaration of Intent to become a citizen.

Loans are made by any qualified lending institution in New Jersey which has agreed to participate by having loans made guaranteed by the New Jersey Higher Education Assistance Authority.

A student borrows from a lending institution (Bank) up to \$2,500 per year on promissory notes as needed for each school year. Certain qualified students attending approved post-secondary institutions of higher education are eligible, while in school, to have the full interest paid on their behalf by the Federal Government. If the Parental Adjusted Income is less than \$15,000, the student will have the interest on his loan paid on his behalf, while in school, by the Federal Government. If \$15,000 or more, the student borrower will pay to the lender all interest charges (7%) from the day the funds are disbursed.

Sponsored Scholarships — approximately twelve sponsored scholarship awards are granted annually to our students in amounts ranging from one hundred dollars to three hundred dollars. These scholarships are awarded to students of ability who are in need and to those who can demonstrate high academic achievement.

Sponsored scholarships are made available through grants given to the College by service organizations, business groups, student clubs, alumni members and individuals. The number of scholarships and their amounts vary each year depending upon the activity and interest of the sponsoring organization.

Last year awards were made by the New Jersey Bell Telephone Company, The William Paterson College Alumni Association, the F.S.C. Chapter of Kappa Delta Pi, and the Faculty Wives Association. Applications must be made prior to April 15, for the coming year.

SMALL LOAN PROGRAM

The Student Government Association has made funds available to this office to lend to students who are in need of petty cash. This service is a valuable one to the student and will continue to be maintained. All small loan information is available in the Financial Aid Office.

EDUCATIONAL OPPORTUNITY FUND PROGRAM

Gerard Lee, Director

The Educational Opportunity Fund Program is an educational support unit of the William Paterson College. The major objective of the program is to provide higher education opportunities to economically and academically disadvantaged residents of New Jersey. The program provides the students with a variety of counseling services, as well as a limited amount of financial assistance. The program is administered as a fully integrated unit of the college.

All initial students accepted to the program are expected to participate in a six weeks summer program prior to the start of the academic year in September. This summer program provides the student with a reinforcement in areas of basic skills and

also affords the student the opportunity to experience college life through campus residency during the six weeks period.

Those persons interested in applying to the Educational Opportunity Fund Program can apply directly to the Office of the Educational Opportunity Fund Program, William Paterson College of New Jersey, 300 Pompton Road, Wayne, New Jersey 07470.

HEALTH SERVICES

Alphonse M. Brancone, M.D.

The college maintains a medical office which is open during the school day, Monday through Friday. The office is staffed by three full-time nurses and a daily part-time physician. Each student is required to submit a self-evaluation medical history form prior to entrance into the college. Periodically, students are required to submit evidence of freedom from Tuberculosis. An examination by the college physician may be required of any student at any time to determine whether his physical condition warrants his continuance in the college.

Insurance

Students and their parents are urged to obtain the insurance plan. Commuting students (92% of the student body) are on highways every day. Accidents will, and do, happen. Financial resources can vanish in the face of accident or illness. Family insurance may not cover children after their 19th birthday. The policy offered is in force, regardless of family policies, twenty-four hours a day and twelve months a year. In case of disability, the student obtains instructions for filing the claim at the college Health Office.

HOUSING

Gary Hutton, Director

ON-CAMPUS HOUSING

Two co-ed residence halls on campus accommodate approximately 532 students in two-bedroom apartments. The apartments, which house four students in each, contain: single beds, desks, desk chairs, study lamps, sofa, dining furniture, full-size refrigerator, electric stove, full bathroom, plenty of storage cabinets and

closets. Students will have to provide their own cooking and eating utensils in addition to bed linens and pillows.

The six-story buildings, which are air-conditioned, are staffed by directors and resident assistants who handle emergencies, help resolve roommate conflicts, and aid in counseling when personal problems arise.

The charge for residing on campus is \$890 per year. The amount is payable in two semester amounts due prior to the first day of each semester. Due dates are established by the Housing Office for those students who move in during the school year.

The aforementioned price does not include a meal plan. However, students will be able to purchase meals in the Student Center cafeteria.

The health of residence hall students is under the supervision of the college nurses and physicians. A nurse will be on duty nights to assist in cases of illness, accidents, and emergencies. All residents, regardless of age, are requested to submit a medical release in the event emergency treatment is required at local hospitals.

OFF-CAMPUS HOUSING

Many students choose to live off-campus. A full list of off-campus vacancies in homes and apartments in the local area is compiled by the Director of Housing and is available on request. Arrangements regarding rent and regulations are negotiated directly with the landlord.

CAREER COUNSELING AND PLACEMENT OFFICE

Narda Riese-Kearney, Director

The Career Counseling and Placement Office is concerned with all aspects of student development, especially those which deal with reaching career decisions.

Vocational counseling is available to all of our students in the process of choosing an occupation, preparing for it, entering upon it, and progressing in it. Graduating seniors, matriculated graduate students, and alumni seeking professional advancement in the areas of Education, Liberal Arts, the Sciences and Business

Administration are offered assistance in finding suitable employment. Assistance in locating part-time and summer work off-campus is offered to all students.

Instructions for setting up a complete credential file (containing sample resumes, cover letters, reference forms, etc.) are mailed out each fall to graduating seniors (transcripts are not a part of your credential file). Assistance in developing dual files for teaching and non-teaching positions is also available.

Advice on preparing resumes and cover letters is another function of this office.

Vocational clinics are run periodically with special sessions devoted to developing interviewing skills and techniques and methods necessary to market individual skills.

Psychological and vocational testing and interpretation and self-directed search materials are available as a guide in career counseling.

Individual and group vocational counseling is available to all students, graduates and alumni who need assistance in clarifying their ultimate goals.

Career conferences are sponsored each year in order to expose students to current career information and to establish contacts with potential employers.

A wide variety of recruiters are solicited and invited to the campus each year in order to interview prospective candidates for positions with their firms and agencies.

An extensive selection of information and resources has been collected in our Career Library in order to stimulate career interest, to convey career knowledge and to aid in selecting and pursuing an optimum career. A special graduate section offers students an opportunity to investigate graduate programs, internships and assistantships. Other subdivisions offer company brochures, business and industrial information, career files, teaching and non-teaching job listings, federal, state, county and local civil service information and a woman's section.

The Career Counseling and Placement Office, in cooperation with the federal government, deals only with schools and firms which observe the non-discrimination laws.

OFFICE OF VETERANS AFFAIRS

C. Clauss, Coordinator

The Office of Veterans Affairs provides a full-time centralized and comprehensive program of services for those people who attend William Paterson College as veterans or as dependents of deceased and disabled veterans.

Supportive counseling and referral services, along with supplemental academic assistance, are available to all veterans on campus with respect to personal/social and financial adjustment, tutorial aid and refresher coursework.

The educational assistance program, administered by the Veterans Administration, provides financial aid for the education of all eligible veterans. The college provides direction and serves as a certifying agency with regard to Veterans Educational Benefits and/or Dependents Educational Assistance.

STUDENT LIFE

STUDENT ACTIVITIES

Anthony Barone, Director

The William Paterson College, recognizing the need for the social as well as the academic development of the individual, offers a wide range of activities to meet the needs and wants of the entire student body. Student activities at the college are based on the students' sharing fully the direction of their social and cultural activities.

Through participation in campus organizations and activities, students gain experience in governing their own affairs, accepting responsibility, and learning to appreciate other people and their points of view. Activities planned for the coming year include: Homecoming, Carnival, Feature Films, Art Films, Rock Concerts, Coffee House, Jazz Concerts, Jam Sessions, Lectures, Dances, Theatre Presentations, and many other events. Any student wishing to participate on any committees or join any club or organization may obtain additional information by contacting the Director of Student Activities or any member of the Student Government Association in the Student Center, 2nd floor. All students, regardless of race, religion, sex, or national origin are

encouraged to participate in the activity of their choice.

STUDENT CENTER

William Dickerson, Director

The purpose of the Student Center is to serve as the center of social, educational, cultural and recreational activities for the entire college community of student, faculty, administration and alumni. The Center provides opportunities for all members of the community to participate in a wide range of activities. Services include: office and file space for student organizations, such as the Student Government Association, the Student Activities Programming Board, the school newspaper, yearbook, literary, and social and political journals. In addition, the Center provides duplicating and poster-making facilities plus audio-visual equipment check-out. Facilities include: a recreation area consisting of pool tables, ping pong, pinball machines, air hockey, cards and various table games; music listening center; study room; television rooms; multipurpose ballroom; lounges; snack bar; dining room; college bookstore; meeting and conference rooms; information desk, and ticket sales; outside dining terraces; sweet shoppe; pub, and bank. The Student Center also houses the Student Activities Office, the Alumni Office, and the Campus Ministry.

STUDENT GOVERNMENT ASSOCIATION

The Student Government Association is a union of students for the protection of student rights. All full-time students, upon payment of the student activity fee, are members of the association. The Student Government Association sponsors many club activities and also runs its own social, cultural and intellectual events. All students have the right to participate in the student government and its functions, and all have a right to its protection.

STUDENT CO-OPERATIVE ASSOCIATION, INC.

This organization is a corporation set up in accordance with an amendment to the constitution of the Student Government Association to hold and disburse student

funds and to operate activities as may be decided by the corporation. There are twelve trustees of the corporation with equal faculty and student representation. The student trustees are elected by the Student Government Association Council. The officers are chosen by the trustees. This corporation is chartered by the State of New Jersey to carry out the purposes indicated.

EVENING STUDENT COUNCIL

Every Continuing Education Division student, including graduate students, is a member of the Evening Student Council and is eligible to be a delegate on the governing board. The Evening Student Council plans and carries out activities which are of primary concern to students and provides a forum for an exchange of views. The Council and the SGA plan and carry forward activities of interest to evening students.

PUBLICATIONS

DIVERSITAS is a monthly publication of the William Paterson College Press Association. It is a political magazine, the purpose of which is to allow students, faculty, and administration an open forum for discussion on various issues. "Diversitas" will publish worthy submissions regardless of the political orientation of the writer.

ESSENCE, a literary magazine, is published twice each year. It contains original articles, poems, plays and short stories written by students. Original illustrations and photographs are also included. Any student may submit manuscripts for consideration. Weekly meetings are held to evaluate and select material. All students are invited to attend.

OWL is the publication of the evening Continuing Education Division and is the source of current information and announcements to both undergraduate and graduate students. All evening Continuing Education Division students can keep abreast of pertinent developments through this newsletter. It is published during the first week of each month and is obtained, without charge, from the evening Continuing Education Division counter in Raubinger Hall, the Library and in other distribution centers on campus.

PATHFINDER is published in the summer by the Student Government Association. It is a handbook for students which contains information about the services offered by the college and detailed information about extra-curricular activities and events, clubs and organizations. It is given to all freshmen at orientation and may be obtained by upperclassmen from the Student Activities Office in the Student Center.

PIONEER YEARBOOK is a college annual which attempts to provide an overall pictorial record of the activities of the senior class and individual pictures of its members. Underclassmen and highlights of their activities are also an integral part of the book's composition.

THE BEACON is a weekly newspaper published by WPC students. It has several times been awarded a first place in the college division of the Columbia Scholastic Press contest. Its aim is to present and interpret news of college activities and to serve as a medium for the expression of student opinion.

HONOR SOCIETIES

Alpha Kappa Delta-Gamma Chapter — William Paterson College's sociology faculty has been accepted for membership to Alpha Kappa Delta, the national sociology honor society — Gamma of New Jersey.

To qualify for membership in the organization, the college sociology faculty had to meet criteria based on the academic qualifications of its members and on the success of WPC students who have graduated from the institution with degrees in sociology.

Student membership will be based on scholarship and a responsibility to make scholarly contributions to sociology, should the member continue his education beyond the bachelor's degree.

Alpha Phi Gamma-Delta Chi Chapter — Students interested in journalism and communications can apply for membership in the Delta Chi Chapter of Alpha Phi Gamma, the honorary journalism fraternity. The organization recognizes and honors individual ability and participation in collegiate student publications; and serves, promotes and helps to improve

collegiate journalism. It is an organization that unites interested students and faculty in journalism.

To be eligible for active membership, a college student must have held either a major position, such as editor, associate editor, news editor or business manager, of a campus publication or news bureau for one semester, or a minor position for two semesters. He, or she, must also be above freshman rank and have an above-average scholastic record. For further information see the editor-in-chief of the State Beacon.

Kappa Delta Pi-Zeta-Alpha Chapter —

Founded first as the Education Club at the University of Illinois, the Society's Alpha Chapter was installed March 8, 1911, under the guidance of William Chandler Bagley. Refreshed yearly by new members (primarily juniors, seniors, and graduate students) the Society continues to be the common agent in the development, growth, and maturation of teachers, bringing together students, faculty, and practicing teachers.

Each year of active membership with Kappa Delta Pi will provide the members with subscriptions to the Educational Forum and The Kappa Delta Pi Record. We trust that each will be reminded of the four ideals — Fidelity to Humanity, Science, Service, and Toil — and that these ideals will continue to be significant contributing guidelines for the teaching careers and lives of all active Kadelphians.

Zeta Alpha Chapter — Serving this college community since May 1945, this society publishes initiation requirements in the Beacon.

Academic Requirements include the following:

3.45 G.P.A. — Sophomores

3.30 G.P.A. — Juniors

3.20 G.P.A. — Seniors

A definite interest in the field of education.

Phi Alpha Theta-Rho Alpha Chapter — Phi Alpha Theta is the international honor society in history. It was organized at the University of Arkansas on March 17, 1921. Since that time it has grown to the point where it now has nearly four hundred chapters in forty-six states, Puerto Rico, Canada, and the Philippine Islands. It is the largest, in number of chapters, of the

accredited honor societies holding membership in the Association of College Honor Societies. The total number of its initiates, since organization, is more than 60,000.

The membership of Phi Alpha Theta is composed of students and professors who have been elected to membership upon the basis of excellence in the study or the writing of history. It is highly democratic, however, in that any student of history may become a member by maintaining a high standard of work in his studies, as well as the fact that all the members participate in the work and the direction of the society.

At the same time, Phi Alpha Theta is a professional society, the objective of which is the promotion of the study of history by the encouragement of research, good teaching, publication, and the exchange of learning and thought among historians. It seeks to bring students, teachers, and writers of history together both intellectually and socially, and it encourages and assists, in a variety of ways, historical research and publication by its members.

Rho Alpha Chapter was established at William Paterson College in 1968. Initiation requirements will be published in the Beacon.

Academic Requirements:

(a) 12 credits of bonafide history courses. (Liberal Studies inclusive) with a minimum of a 3.1 average in those courses;

(b) letters of recommendation from two faculty members.

Pi Lambda Theta-Beta Chi Chapter — An honor and professional organization for women in education. Junior and senior undergraduate students are eligible to apply for membership upon attainment of a 3.2 or higher grade point average. Graduate students are eligible to apply for membership upon attainment of a 3.5 or higher grade point average.

CLUBS AND ACTIVITIES

Intercollegiate Athletics

William Paterson College is a member of the highly-competitive New Jersey State College Athletic Conference, The Eastern Collegiate Athletic Conference, and The National Collegiate Athletic Association. In

its quest to provide the college community with a balanced and inspiring sports program, the College offers nine intercollegiate varsity sports for men and eight for women. In addition to these, there are two co-ed sports, Equestrian and Dance, with Ice Hockey, Ski Racing and Wrestling organized on a club basis.

Men's varsity sports include: Cross Country, Football, Soccer, Basketball, Fencing, Swimming, Baseball, Golf, and Track. Women's varsity sports include: Field Hockey, Tennis, Volleyball, Basketball, Fencing, Gymnastics, Swimming, and Softball.

The Pioneers have won conference titles in Baseball, Basketball, Cross Country, Soccer, and Swimming. Members of the Cross Country, Fencing (both men and women), Football, Soccer, and Track teams have been selected to All-American Teams. Members of the Fencing teams and Track teams compete in national and international competition.

Outdoor athletic events are hosted at Wightman Field. Competition in Cross Country is held at nearby Garret Mountain, and Golf matches are held at neighboring North Jersey Country Clubs. Indoor events are held in Wightman Gymnasium.

African Student's Association —

This organization offers a meeting place for students, new to this country, to share observations and experiences in a familiar environment. The group sponsors films, trips, speakers and participates in *Third World Week*, a newly instituted forum for views from the developing world.

Art Education Association — This action-oriented group gives students the opportunity to meet with others committed to the teaching of art as a career and to participate in social and professional activities related to art education on all levels. Having sponsored exhibitions of children's art work at the college, Willowbrook Mall, and the Newark Museum, the Art Education Association has also promoted field trips to an experiential learning center, a manufacturing facility that produces school art materials, a state prison where WPC student teachers of art teach during a residential experience, and an art center in Harlem which is devoted to children.

Students have participated in professional conferences for art educators, panels devoted to teaching art in urban schools, seminars devoted to teaching of art through media and workshops devoted to experiencing art materials used with young children. To be placed on the activities mailing list, send your name to Prof. S. Wolloch, advisor to the group.

Black Students Union — The Union seeks to bridge the chasm of racial turmoil in these ways: recruitment of minority group students and enrichment of community support for the work of The William Paterson College. The Black Students Union also publishes *UJAMA*. This magazine is devoted to the task of providing literary and informative articles which are intended to serve the Black Students Union, the WPC community and surrounding communities.

Carnival — The William Paterson College Carnival is held annually in the spring of the year as part of the Student Government Association's social activities. Carnival consists of rides, refreshments, and games of skill.

Participants in the Carnival have consisted in the past of fraternities, sororities, various clubs and organizations, and other interested students. Membership on the Carnival committee is open to all students. Information may be obtained by contacting the Student Activities Office in the Student Center.

Cheerleaders — The cheerleaders contribute to college spirit by sponsoring dances and pep rallies and by cheering at varsity basketball and club football games both home and away. The cheerleaders consist of two squads, of 10 each: varsity and junior varsity. In the spring of the year, tryouts for vacancies on the varsity squad are held. Selection is on the basis of enthusiasm, interest, personality and ability. Only junior varsity cheerleaders are eligible to try out for the varsity squad.

Junior varsity tryouts are held in the fall of the year. Selection is on the same basis as varsity. Any student is eligible to become a junior varsity cheerleader.

Chess Club — The Chess Club is open to all students, whether they are novices or experienced chess players. Notices about

club meetings will be placed in "The Beacon."

Chinese Club — The Chinese Club is an S.G.A. funded organization in which students, who have an interest in some aspect of Chinese culture, participate in a wide range of related activities. The club's involvements include Kung Fu demonstrations, Chinese food sales, films and trips to Chinatown.

Christian Fellowship — The Christian Fellowship is for anyone who is interested in Christianity. It is for those who are committed to Jesus Christ, and it is for those who are investigating what it means to be a Christian. The William Paterson Christian Fellowship provides opportunities in small group fellowship around Bible study and prayer. There are also opportunities for sharing the "Good News" of salvation in Jesus Christ with others. A Christian Booktable is in operation each week and there are various service projects, counseling and socials provided. Training in Christian Discipleship is available through Inter-Varsity Christian Fellowship Bible and Life weekends and conferences. If you are a Christian on campus or if you are interested in finding out more about Christianity, you are invited to participate in the activities of the William Paterson Christian Fellowship. For more information, contact the Christian Fellowship in the Alumni Office Complex, Second Floor, Student Center or call Ken VanderWall at 201-423-2737.

Consumer Education Association — The organization is dedicated to serving the entire college community wherever problems arise concerning consumers. This includes anything from student problems on campus as well as off campus. We are a chartered group under the Student Government Association with a working constitution that stops at nothing when students need help.

The Drop-in Center — Located in room 247 of the Science Complex, the Drop-in Center provides trained peer counseling to all interested students. Open Monday through Friday from noon to 10 PM, the Center is an adjunct to the *Helpline* counseling service.

Ecology Club — The Ecology Club disseminates ecology information to the college community as well as performing various ecological projects. Activities will also include lectures and film presentations.

The French Club — This club is open to all students interested in some aspect of French culture. Activities in the past years have included: a French day during International Week, French films, concerts, lectures, lunches and picnics. Members can use the French room (Matelson 220) to meet informally and read the French papers and magazines the club subscribes to. The Club advisor is Dr. A. Jourdan-Duryea (Matelson 204).

Gay Student Union — GSU provides information, support and weekly discussion meetings for gay members of the community as well as for others who are interested. The Gay Discussion Group meets weekly and provides a place where people can share interests and concerns. Information is provided about social events, conferences and other affairs of particular interest to the gay community. One or more coffee houses or other special events are sponsored each year. *Hold Hands*, a publication of GAANJ (Gay Activists of New Jersey), is made available to members. The purpose of GSU is to provide contact and build a sense of community among gay people as well as to open up communication with other members of the college and the larger community.

The Helpline — 201-345-1600 — The Helpline is a volunteer student service designed to answer the particular kinds of questions that college students have about themselves and the college. These questions can be of an intensely personal nature or, more simply, in search of information about registration, financial aid, drug or alcohol dependence, sexual matters or courses here on campus. As with the Drop-In Center, complete confidentiality is guaranteed.

Homecoming — Homecoming Weekend is held during the fall of the year to honor the alumni of The William Paterson College. Some of the events scheduled include a dinner dance, open house, pep rally, football games, soccer

games, a homecoming parade, and a rock concert.

Ice Hockey Club — This winter will be filled with the fiery action of collegiate ice hockey. From the season's crisp start in October to its conclusion in February, ardent fans will enjoy many pleasurable experiences. Our eighteen game schedule is conducted in conjunction with the Bi-State (N.Y.-N.J.) Ice Hockey League. Full-time students interested in trying out for the team will be notified by the *Beacon* or the other campus information sources. We are now entering our fourth season under the advisorship of Mr. DiMicelli.

International Student Association — Formed in October 1971, the Association provides the International Student with an opportunity to meet and work with other international students on campus, to help incoming students adjust to the campus as well as the country, and to participate in the various social events the club helps organize. The association sponsors trips, films, speakers, parties and assists in initiating speaking engagements in the area for students.

Our office, room 316 of the Student Center, provides a center for organizing activities and a place to relax between classes. Interested students should come to this office, which is open daily, or contact the Club's advisor, Anne Vogt, in Matelson Hall 123.

The Irish Cultural Club — The club, founded in October 1974, is one of the newest and most active clubs on campus. The main objectives of The Irish Cultural Club are to study, appreciate and preserve the culture of Ireland. It is our desire to introduce to the student body, faculty and community residents a wide spectrum of cultural programs in art, music, literature and history. We wish to organize with other cultural groups on our campus, in the United States and in Europe. Lastly, we hope to establish an exchange program. Meetings will be held bi-monthly and will be announced in the *BEACON*. Membership forms may be obtained in the Irish Cultural Club's Office in Room 318, Student Center. The Irish Cultural Club is chartered and funded by the Student Government Association. The advisor is Professor John Murphy.

Italian Club — The objective of the Italian Club is to develop an interest in and an appreciation for Italian culture and customs.

Members of the club will attend an Italian opera, see Italian movies, see an Italian play and attend an Italian "festa."

Specialists in Italian culture will be invited to speak.

Jewish Student Association — The Jewish Student Association has been established to provide facilities, guidance and organization for social, religious, cultural and educational activities for students at William Paterson College. The group sponsors speakers and inter-collegiate programs, as well as events for the college community.

Some of the activities in past years include: a concert starring Robert Klein, and featuring the musical group "Nitewatch"; a cultural lecture series; wine and cheese parties; gym and swim parties; picnics; Channukah toy drive; a model Sedar for Passover; working at the school carnival; and an annual end-of-the-year trip to a hotel in the Catskill Mountains.

The Jewish Student Association has open house weekly, and programs are scheduled frequently. All functions are open to everyone and announced in the *BEACON*. Our office is always open. Stop in and visit.

W.P.C. MARCHING BAND — The W.P.C. Marching Band is a newly formed student organized and run group of enthusiastic musicians and non-musicians who promote school spirit at football and basketball games, hold concerts and go Christmas caroling on and off campus, perform at various parades and just get together to have a good time. We look to bring in any interested people to expand our growing membership roster. Anyone interested in the Marching Band should come to the Programming Board Office, 3rd floor, Student Center, and ask for Ed Barr.

Math Club — The aim of this club is to stimulate the students' interests and to broaden their scope of knowledge in the field of mathematics. Membership is open to all students who have a desire to learn more about mathematics. Plans for the year include discussions, films, mathematics

laboratory activities, guest speakers and field trips.

Musical Organizations — There are many musical groups in which students may participate, including College Choir, Women's Choral Ensemble, Men's Glee Club, Chamber Singers, and College Chorus (open to all men and women students).

Instrument groups include the College Community Orchestra, Concert Band, Brass Ensemble, Brass Quintet, Woodwind Ensembles (clarinet, saxophone, and quintet), Jazz Ensembles (large ensemble, chamber ensembles, guitar, rhythm, vocal), Trombone Ensemble, Classical Guitar Ensemble, Contemporary Chamber Ensemble, Collegium Musicum and W.P.C.-N.J. Percussion Ensemble.

The Music Club — The purpose of this organization is to promote the musical interests of the student body and to provide for cultural activities on campus. Social activities such as receptions, picnics, and parties are also functions of this group. Monthly meetings are held and usually include guest speakers, as well as club business. Officers and faculty advisors for the Music Club are elected on an annual basis. Any student is eligible for membership in the organization.

Natural Science Club — This club provides intellectual and social activities which supplement curricular studies in the science subject areas. A spring and fall canoe trip are the highlights of the year's activities. One of the goals of the club is to develop the waterfall and surrounding land for use in the college programs. Other activities include: horseback riding, guest speakers, camping weekends, trips to museums, and fossil collecting.

Newman House — Situated next to the Gate 1 entrance of William Paterson College, the Newman House is almost hidden by towering fir trees and bushes which surround it. This rambling white home is a place where anyone can feel at home and relax.

Inside there is a small kitchen with facilities for cooking. The kitchen opens onto a large carpeted living room with a fire place for warming chilly autumn nights. An informal dialogue mass is celebrated in this room on

Sundays at 11:00 in the morning and also at 8:00 in the evening.

Off this large room is a smaller area where one can find books to read, a baby grand piano to play, and a stereo and records for enjoyable listening. Downstairs at the basement level is a small quiet room for peaceful thinking, reading and praying — little chapel room.

The doors are always open at the Newman House and everyone is welcome to come in, make a cup of coffee or tea, talk, study, read, pray, or just lie on the floor and dream. The three Catholic priests at the Newman House can usually be reached in the evening at this number: 201-278-0147. They are available to everyone for counseling and conversation, and may also be reached in Room 202, 2nd floor, Student Center.

Olas — Olas is the Organization of Latin American Students. The purpose of the organization is to serve the needs of the Hispanic students at William Paterson College and to work closely with the Hispanic community in this area. The club actively recruits qualified Hispanic students to the campus. It also sponsors financial aid programs to needy students and charity benefits for orphans and disaster victims in Latin American and in the community. Olas actively participated in the development of bi-cultural education courses. It has co-sponsored functions with the Black Students Union, Educational Opportunity Fund, and several academic departments bringing timely films, speakers, folk art displays and ethnic folk dances to the campus so that the student body could learn more about Latin America's culture, problems and way of life. Olas also sponsors social functions such as dances, field trips to theatres, museums, films and restaurants in the Hispanic community, as well as dinners and parties.

Pioneer Players — The college dramatic club is open to all students interested in acting, play reading, directing, costuming and make-up technique. No previous histrionic experience is necessary.

Political Science Club — The Political Science Club is an organization dedicated to the promotion of political awareness at

all levels of government among students. All students are welcome to join, especially Political Science majors. Meetings will be announced in the *BEACON*.

Psychology Club — The Psychology Club of William Paterson College was founded by students in 1970 to provide an organization and a forum for all students interested in pursuing the study of psychology beyond the limitations of traditional classroom restraints. The club is run by and for students. It sponsors various activities related to an interest in psychology such as films, speakers, field trips, and social gatherings. Any and all students interested in psychology are welcome as members. The Psychology Club maintains an office in the new student center. The faculty advisor to the club is Professor Silverstein.

Radical Communications Club — The RCC is dedicated to the presentation of the radical perspectives of current ideologies, as well as the revolutionary aspects of art, music, and literature.

WPSC Radio — This campus radio station offers the student the opportunity to learn the many facets of radio through practical experience. Students can participate in broadcasting music, news, and sports and can also learn about advertising, engineering and audio production. WPSC is located on the ground floor of Hobart Hall, next to Television Studio A.

Ski Club — Membership in this club is open to all students — skiers and non-skiers alike. Beginners are given an opportunity to learn skiing techniques and skills, while experienced skiers can enjoy skiing expert slopes. The Ski Club promotes and organizes skiing trips and meets for discussions, films and demonstrations. Overnight, day, evening and weekend trips are offered to members at significantly reduced rates. Students who wish to learn how to ski are encouraged to join.

The Ski Club runs a variety of weekend and day trips to ski areas in Vermont, New York, and New Jersey, as well as trips to such ski resorts as Innsbruck and Cervinia during vacations.

For information contact: Ann Picozzi,

Student Activities Office, Second Floor,
Student Center, phone: 201-595-2519.

Social Science Society — The society is organized to promote the Social Sciences on campus. Speakers, discussion groups and panels which enlarge the personal and professional background of members are scheduled. Field trips to areas of historical interest supplement regular club activities.

Sociology Club — The Sociology Club involves an informal group of students who examine the problems of society (alienation, population, crime, racism, sexism) through a series of lectures, discussions, and debates.

Special Education Club — The WPC Special Education Club, affiliated with the National Council for Exceptional Children (CEC), is a service club open to all Special Education majors at WPC. Our goals this year are to make exceptional people happy, to better educate the public about the potentials of exceptional people and to be here for you, the future special educator, if you need us for any reason.

There is work to be done to fulfill these goals. Come to our meetings, give us your ideas, volunteer some time, so we can do it all together.

Student Mobilization Committee — The S.M.C. is an independent, non-elitist, non-sexist, left wing coalition of students seeking to build solidarity on campus and to put forward a unified front in support of all progressive causes. We also serve as an educational resource for the college community, having brought to campus many movies and such noted speakers as Angela Davis, all free to the public. Membership is open to all interested students. Faculty advisor is Clyde Magarelli of the Sociology Department.

Veteran's Association — The Veteran's Association is in existence for the primary purpose of assisting veterans in their educational and social activities. Though dedicated to pursuing and upholding the rights, benefits and interests of veterans, this organization promotes activities that are of interest and benefit to the entire campus community. Membership forms and further information

can be obtained at the Office of Veteran's Affairs.

Women's Group-WPC — This group is a collective of women from the college community (students, faculty and staff) who function democratically to promote the interests of all women on campus and to heighten awareness of the emotional, social and political pressures women face. The collective meets in the Women's Center, Matelson 262, to plan activities (such as an annual conference on women) and to do consciousness-raising.

Women's Center — Matelson 262 serves as a meeting place for women and coordinates women's activities on campus. These activities include the gynecological clinic, childcare center, consciousness-raising groups, peer and career counseling, academic advisement, women's studies courses, lectures and poetry readings. The Women's Center is run by the WPC Women's Group under the supervision of the offices of the Dean of Student Services and the Vice President for Academic Affairs.

Student Activities Programming Board — The Student Activities Programming Board is a new organization designed to promote well diversified social, cultural, recreational and service activities for William Paterson College and friends of the college. The Programming Board is also designed to maximize the use of campus facilities and to aid all students and organizations with development of their programs and activities.

The Programming Board is divided into eight sub-committees, and membership on these sub-committees is open to interested students.

The sub-committees of the Programming Board are as follows:

CONCERT COMMITTEE — Involved with major concerts and mini concerts (approximately 8 of each per year).

COFFEEHOUSE COMMITTEE — Involved with coffeehouses. Held in Wayne Hall Lounge — (approximately one full week out of each month with Coffeehouse Circuit acts and additional days with Local Talent.)

PERFORMING AND CREATIVE ARTS COMMITTEE — Involved with lectures,

theatre, dance and other activities of cultural interest to WPC students.

CINEMA COMMITTEE — Involved with a Feature Film Series (usually one film per week) and two 24 hour film festivals during the year.

SOCIAL COMMITTEE — Involved with Homecoming, Carnival, All-College Playday and Willie Pee's Discotheque.

STUDENT SERVICES COMMITTEE — Involved with Freshmen Orientation, publishing the annual calendar, and the "Pathfinder" (Student Handbook) and the Senior Faculty Dinner.

RECREATION COMMITTEE — Involved with running pool tournaments, ping-pong tournaments, chess tournaments, camping trips and providing for arts and crafts workshops and lectures and demonstrations in other recreational areas of interest.

EXECUTIVE COMMITTEE — Consists of President, Vice President, Recording Secretary, Corresponding Secretary, Treasurer, Parliamentarian, Historian, Executives at Large, Conference Coordinator and the Chairpersons from the above committees. These executives are elected by the membership.

This Board is a product of the Student Government Association and is solely dependent upon student input. This is your organization, spending your money for your education and pleasure. The Student Activities Programming Board is looking for energetic and interested students. Its office is located on the third floor of the Student Center.

Its advisors are:

Anthony T. Barone, Director
of Student Activities, 2nd
Floor, Room 214, Student
Center — 201-595-2518

Bill Dickerson, Director of
the Student Center,
Main Office — 201-595-2292

Ann Picozzi, Assistant Director
of Student Activities,
2nd Floor, Room 214, Student
Center — 201-595-2519

For further information, contact any of the above in the Student Center.

Alcohol Control Committee — The Alcohol Control Committee (ACC) is charged with the responsibility of implementing college policy regarding the consumption of alcoholic beverage on campus.

Membership on the committee consists of twenty students, evenly divided between male and female members.

Qualifications for committee membership are an age minimum of 18 years and freedom of academic and social probation. The selection of committee members is the responsibility and jurisdiction of the Alcohol Review Board.

The duties of the committee consist of checking proof and/or college I.D.'s, maintaining a guest book, assisting in the general control of the function, and serving as witnesses in any cases brought up before the Dean of Student Services and appropriate judiciary bodies.

STUDENT RIGHTS

Students and student organizations should be free to examine and to discuss all questions of interest to them and to express opinions publicly and privately. They should always be free to support causes (by orderly means) which do not disrupt the regular and essential operation of the institution.

To assure academic freedom the following rights are recognized and protected by the College community:

1. Student performance in the classroom should be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards.
2. Students should be free to take a reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.
3. Students shall be protected against unwarranted disclosure of information concerning student views, beliefs and political associations which professors, administrators, or students acquire in the course of their work as instructors, advisors, counselors, administrators, or

fellow students.

4. Information from disciplinary or counseling files should not be available to unauthorized persons on campus or to any person off campus without the express consent of the student involved, except under legal compulsion or in cases where the safety of persons or property is involved.
5. Students bring to the campus a variety of interests previously acquired and develop many new interests as members of the academic community. They should be free to organize and join associations to promote their common interests.
6. As constituents of the academic community, students should be free, individually and collectively, to responsibly express their views on issues of institutional policy. On matters of general interest to the student body, students should have clearly defined means to participate in the formulation and application of institutional policy affecting academic and student affairs.

STUDENT RESPONSIBILITIES

Consistent with the above, stated student rights are corollary responsibilities with respect to the conduct of student affairs:

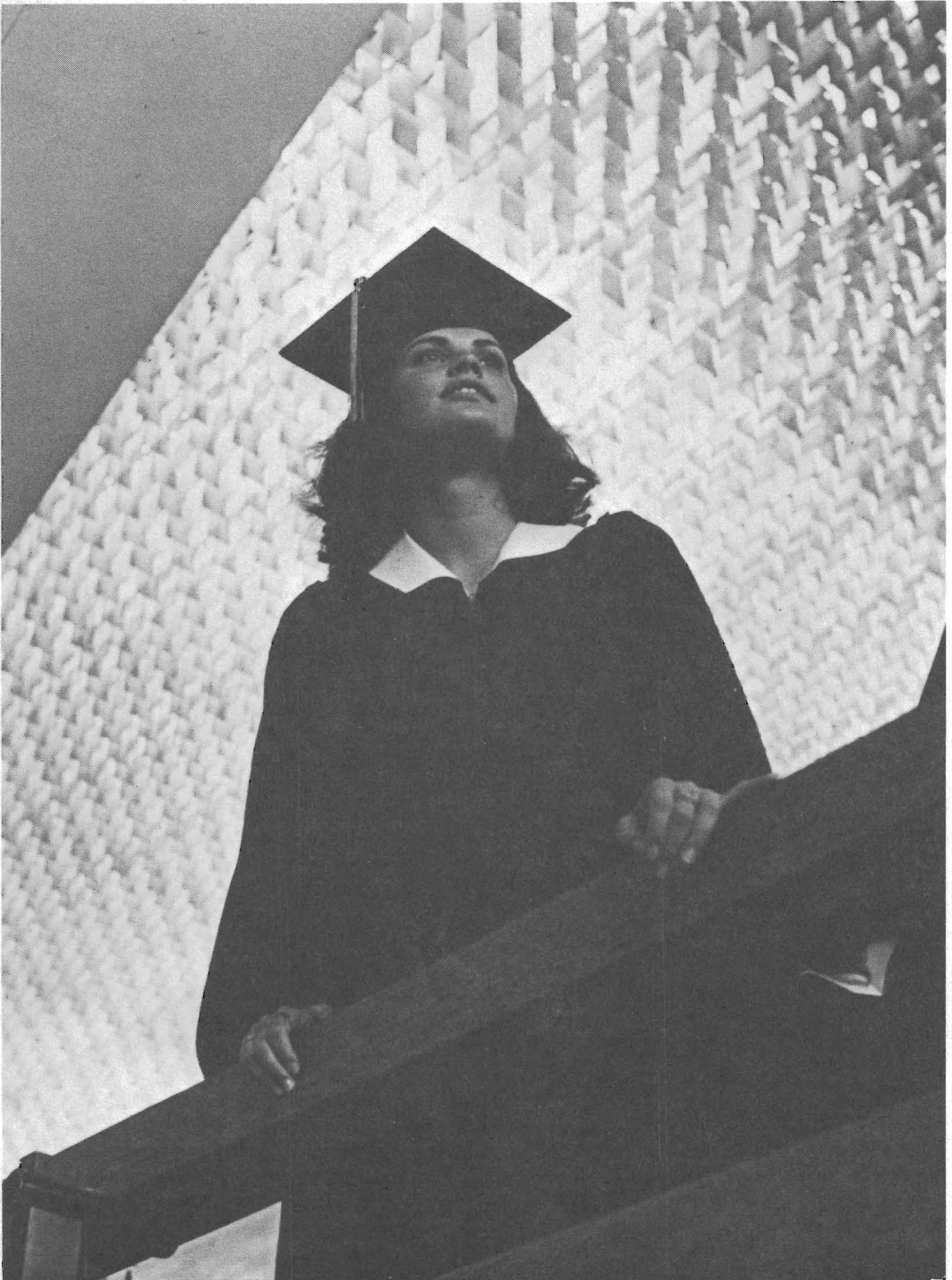
1. No student shall knowingly violate or attempt to violate any duly promulgated and approved college policy or regulation.
2. Editors and managers of student publications shall at times be governed by canons of responsible journalism, such as the avoidance of libel, indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo. In addition, a list of editors and staff members shall appear in every publication.
3. No student shall prevent or attempt to prevent anyone from performing his duties within the college.
4. A student of the college community should appear when summoned by an appropriate hearing officer to the tribunal of the college in connection with charges made against him concerning the performance of his professional

responsibilities, except that one who appears may, in answer to any question, invoke:

- a: his privilege not to incriminate himself; or
- b: his privilege not to divulge a confidential communication from a

student or a faculty member or administrator made with the understanding that it would be kept confidential; or

- c: his privilege not to discuss his personal, religious, political or ethical beliefs.





PART II: THE CURRICULUM

GENERAL CURRICULUM REQUIREMENTS

COURSEWORK REQUIREMENTS

In its most fundamental terms, the baccalaureate degree earned from William Paterson College contains two dimensions: breadth and depth. The dimension of breadth is designed to assure a carefully designed exposure and basic competence in the liberal arts and sciences. It is this liberal studies component that has been intentionally built into each undergraduate's program to require that a person have not only specific interests and skills but flexibility, imagination, and the ability to make informed judgments and intelligent decisions.

To accomplish this aim, the course work requirements include limited study from the following areas: the aesthetic disciplines; ethical and historical meanings; social and behavioral sciences; and the natural and physical sciences.

The dimension of depth, called the area of specialization, is also carefully designed to assure that the requirements meet the standards of professional, accrediting, and certifying agencies as well as admission requirements to other second level study.

To supplement these dimensions, further coursework includes directed and free electives. Directed electives are those courses minimally required by established standards of accrediting, professional and certifying agencies in cognate fields or in courses which would normally be required for the student to achieve minimal competency when remediation may be necessary or prerequisite experience be demonstrated.

Free electives are those courses chosen entirely at the student's desire and interest to further complement the liberal studies or the specialization coursework or to investigate topics and disciplines according to personal taste.

It is within this latter category that a student may choose to develop what has been traditionally labeled a minor; or to undertake a cluster of courses prescribed for vocational certification; or to undertake varying degrees and kinds of individualization, such as independent or field study; or to elect additional courses in his major either to increase his competency in his specialization or to prepare himself for graduate studies. It is understood that a student, in selecting any particular course, shall have completed any prerequisite which may be required or shall have received special permission to elect the course.

Electives may be distributed through the student's sophomore, junior, and senior years, consistent with the above principles.

LIBERAL STUDIES

All students must successfully complete 3 credits of ENG 110 (Writing Effective Prose). Minimal proficiency in fulfilling this requirement will be a grade of C. The completion of this requirement shall normally occur during the freshman year, but must be fulfilled before a student may be admitted to the junior year. Non-English speaking students may meet the above composition requirement through two 3-credit courses entitled ENG 101-102 (English as a Second Language I and II)

All 100 level Liberal Studies courses except Foreign Languages will be restricted to Freshmen and Sophomores.

Upperclassmen are not permitted to register for these courses without special permission.

For information on waiver of this requirement through special and challenge examination, see page 48.

In addition, the Liberal Studies program requires that students complete a minimum of 27 credits of introductory courses in several academic categories. The student must take at least 3 credits in each of the following four areas, but not more than 9 credits in any one area nor more than 6 credits in one faculty. Liberal Studies courses offered by the College of Human Services may be substituted where appropriate. Major courses may not be used for Liberal Studies credit.

HUMANITIES DIVISION

(3-9 credits) including English, Foreign Languages, Philosophy, and History.

ENG	120	20th Century Authors	PHIL	320	Ethics
ENG	130	Human Experiences in Literature	PHIL	332	American Religious Experience
ENG	140	The Writer As Social Critic	PHIL	324	Philosophy of Sexual Politics
ENG	212	Contemporary Literature	PHIL	322	Mysticism
ENG	214	Contemporary Drama	HIST	110	Heritage of the Ancient World
ENG	217	Images of Women in Modern Literature	HIST	120	Heritage of the Medieval World
ENG	218	Fiction and Film	HIST	130	The Modern World
ENG	219	19th Century Women's Voices-Passive to Active	HIST	140	Chinese Civilization
ENG	221	The Mystery Story	HIST	150	Latin American Civilization
ENG	301	English Literature Through the Neo-Classical Period	HUM	199	Humanities Honors Seminar I: Representations of Humanity Past and Present
ENG	302	English Literature Romantic through Modern	HUM	200	Humanities Honors Seminar II: Representations of Humanity Past and Present
ENG	303	American Literature to 1865	HUM	300	Humanities Honors Colloquium — Twentieth Century and Its Discontents
ENG	304	American Literature 1865-1914	SPAN	109	Introduction to Spanish Culture and Language
ENG	305	Literature of Western Europe to Renaissance	SPAN	110	Basic Spanish I
ENG	306	Literature of Western Europe from Renaissance through Modern	SPAN	111	Basic Spanish II
ENG	310	Elizabethan and Jacobean Drama	SPAN	112	Intermediate Spanish I
ENG	314	Age of Johnson	SPAN	113	Intermediate Spanish II
ENG	317	Modern American Literature	SPAN	115	Spanish Mini Course I
ENG	321	English Novel: Dickens to Hardy	SPAN	116	Spanish Mini Course II
ENG	410	Chaucer and His Age	SPAN	117	Spanish Mini Course III
ENG	412	Shakespeare: Tragedies & Romances	SPAN	118	Spoken Spanish for Tourists
ENG	421	Literature and Psychoanalysis	SPAN	300	Twentieth Century Spanish Literature in Translation
ENG	422	The Psychological Novel	SPAN	301	Masterpieces of Spanish Literature in Translation
ENG	480	Seminar in English Literature	FR	100	Spoken French for Tourists
PHIL	110	Introduction to Philosophy	FR	109	France Today: Culture and Language
PHIL	120	Philosophy of Religion	FR	110	Basic French I
PHIL	340	Introduction to Inquiry	FR	111	Basic French II
PHIL	200	Logic	FR	112	Intermediate French I
PHIL	201	The History of Ancient Philosophy	FR	113	Intermediate French II
			FR	300	Twentieth Century French Literature in Translation
			FR	301	Selections from French Existential Literature in Translation
			GER	110	Basic German I
			GER	111	Basic German II
			GER	112	Intermediate German I
			GER	113	Intermediate German II
			IT	110	Basic Italian I
			IT	111	Basic Italian II
			IT	112	Intermediate Italian I
			IT	113	Intermediate Italian II
			IT	300	Twentieth Century Italian Literature in Translation
			GRK	110	Classical Greek for Beginners I

GRK	111 Classical Greek for Beginners II
CHIN	110 Basic Chinese I
CHIN	111 Basic Chinese II
CHIN	112 Intermediate Chinese I
CHIN	113 Intermediate Chinese II
LAT	110 Latin for Beginners I
LAT	111 Latin for Beginners II
HEBR	110 Basic Hebrew I
BLST	100 Introduction to Black Studies
BLST	110 Afro-American History to 1865
BLST	111 Afro-American History Since 1865
BLST	201 The Civilizations of Ancient Africa
BLST	203 Colonialism in Africa
BLST	205 Pan Africanism and the Black Experience
BLST	206 Elementary Swahili
BLST	228 The Afro-American Literary Experience I
BLST	229 The Afro-American Literary Experience II
BLST	240 Afro-Caribbean History
BLST	245 The Caribbean in the 20th Century
BLST	301 Contemporary Africa
BLST	307 Intermediate Swahili
BLST	311 African Literature
BLST	331 The Philosophical Problems of Slavery During the Era of the American Revolution

MATHEMATICS AND NATURAL SCIENCES DIVISION

(3-9 credits), including Mathematics, Chemistry, Physics and Earth Sciences.

MATH	110 Contemporary Mathematics
MATH	120 Finite Mathematics for Social, Behavioral, and Life Sciences
MATH	130 Elementary Statistics I
CS	140 Computer Science I
MATH	150 Applied Calculus I (for Biology, Business, Economics, Psychology, and Social Sciences)
MATH	200 Mathematical Logic and Set Theory
MATH	318 Mathematics of Personal Finance
BIO	110 Biology of Plants and Animals
BIO	120 Biology of Man
BIO	140 The Biosphere
BIO	323 Conservation

BIO	230 Field Biology
PHYS	110 Introduction to Physical Science
PHYS	120 Physical Geology
PHYS	150 Meteorology
PHYS	165 Energy and Earth's Natural Resources
PHYS	170 General Astronomy
PHYS	250 Basic Electronics I
CHEM	110 Crisis of the Environment
CHEM	160 General Chemistry I
CHEM	164 College Chemistry
ECON	230 Economics of the Environment

FINE AND PERFORMING ARTS DIVISION

(3-9 credits), including Art, Music, Theatre and Communications

MUS	110 Basic Music Studies
MUS	120 Music Appreciation
MUS	130 Symphonic Music
MUS	140 Opera
MUS	220 Jazz History and Appreciation
MUS	335 Choral Literature

ALL MUSIC PERFORMANCE COURSES

ART	110 Modern Art I
ART	120 Ideas in Contemporary Art
ART	130 World Art
ART	140 History of Film
THEA	101 Introduction to Theatre
THEA	102 Fundamentals of Acting
THEA	103 Basic Design for Theatre
THEA	162 Stagecraft I
THEA	232 Basic Costuming and Makeup
THEA	262 Readers Theatre
THEA	263 Development of American Musical Theatre
THEA	310 History of Theatre to 1850
THEA	360 History of Theatre from 1850
THEA	361 Theatre Criticism
THEA	363 American Theatre and Drama

COMM	110 Communication in Action
COMM	120 Mass Communication
COMM	220 Radio and Television
COMM	225 Audio Production
COMM	234 Film as Medium
COMM	365 Introduction to Rhetoric
COMM	434 Current Cinema

BLST	120 Afro-American Music
BLST	207 Blacks and the Mass Media
BLST	233 Introduction to the Art of Africa
BLST	312 Blacks and the Performing Arts
BLST	313 Afro-American Theatre

BLST 314 Afro-American Theatre
Production
BLST 330 Images of the Black Man in
Early American Art, 1600-1800
PATH 364 Voice and Speech Production

SOCIAL AND BEHAVIORAL SCIENCES DIVISION

(3-9 credits), including Sociology/
Anthropology, Political Science,
Geography and Psychology.

PSY 110 General Psychology
PSY 120 Psychology of Social Issues
PSY 130 Psychology in Business and
Industry
PSY 322 Group Dynamics
GEO 110 Cultural Geography
GEO 120 Man's Physical World
GEO 130 Human Ecology
GEO 150 World Regional Geography
GEO 233 World Resources and
Industries
GEO 310 Trade and Transportation
Geography
GEO 335 Latin America's Geography and
Problems
GEO 336 Soviet Union's Geography and
Problems
GEO 339 New Jersey's Geography and
Problems
GEO 350 Geo-Economics of Energy and
Man
GEO 365 Man, Nature and Wild Life
POL 110 Introduction to Politics
POL 120 American Government and
Politics
POL 130 Black Politics in America
POL 140 Politics and Sex
POL 310 Political Socialization
SOC 110 Principles of Sociology
SOC 120 Marriage and Family
SOC 130 Social Anthropology
SOC 250 Urban Sociology
SOC 253 Elementary Sociological
Statistics
SOC 310 Sociology of War
SOC 325 Sociology of Social Movements
SOC 326 American Religion
SOC 327 Collective Behavior
SOC 328 Sociology of Arts
SOC 330 Sociology of Death and Grief
SOC 354 Social Stratification
SOC 360 Self and Society
SOC 365 Social Deviance

SOC 406 Social and Environmental
Change
SOC 408 Peoples and Cultures of Native
North America
SOC 421 The Sociology of Revolution
BLST 112 The Black Child
BLST 130 Black Politics
BLST 131 Afro-American Social Thought
BLST 202 African Family Life
BLST 204 African Cultural Systems
BLST 208 Blacks and the Criminal Justice
System in the U.S.
BLST 230 Roots of Racism in the United
States
BLST 238 African Politics
BLST 239 The Black Athlete
BLST 255 The Black Woman Experience
BLST 258 Black Psychology
BLST 260 Psychological Testing of
Minority Children
BLST 280 Minority Enterprises
BLST 288 Blacks and the Business World
BLST 300 The Black Family
BLST 410 Problems and Practices of the
Ethnic Markets
BLST 420 Economic Structure of the Black
Community
BLST 480 Research Methods and the
Minorities
BUS 120 Basic Legal Principles
BUS 231 Legal Implications of the
Environmental Crisis
ECON 201 Macroeconomic Principles
ECON 202 Microeconomic Principles
ECON 210 Economic Statistics I
ECON 211 Economic Statistics II
ECON 230 Economics of the Environment
ECON 301 Macroeconomic Theory
ECON 302 Microeconomic Theory
ECON 320 History of Economic Theory
ECON 330 Governmental Economic Policy
ECON 350 Urban and Welfare Economics
ECON 360 Theory of Economic Growth
and Development
ECON 370 International Economics
ECON 380 Economic History of the United
States
ECON 390 Comparative Economics
Systems
ECON 400 Inter-Industry Economics
ECON 420 Mathematical Economics
ECON 430 Econometrics
HSA 199 College Symposium
HSA 300 Women: Changing Roles
HSA 307 Sex Differences and
Discrimination in Education
and Work

- TBED 302 Children of the Caribbean Cultures
- TBED 303 Minority Children in the Urban Setting
- TBED 309 Applied Linguistics
- URED 110 Introduction to Urban Studies
- URED 210 Drug Use and Abuse
- URED 305 Racial Awareness
- URED 480 Ethnic Dance
- URED 483 Non Partisan Political Action

HEALTH AND PHYSICAL EDUCATION

Alternatively, while complying with the above distribution, the student may elect up to 6 credits in Health and/or Physical Education to meet the Liberal Studies requirement. The following courses may be counted for Liberal Studies credit in this area:

- HSC 120 Current Health Problems
- HSC 200 Consumer Health
- HSC 210 Women's Health
- PE 100-129 A variety of 2-credit physical Education Courses (Leisure Time and Recreational Activities)
- PE 130 Introduction to the Art of Dance
- PE 150 Personal Implications of Exercise, Fitness and Rest
- BLST 101 Afro-Caribbean Dance
- BLST 102 Contemporary Afro-American Dance
- BLST 209 Beginners Karate
- BLST 210 Intermediate Karate
- BLST 211 Advanced Karate
- BLST 239 The Black Athlete
- URED 210 Drug Use and Abuse

SPECIALIZATION (Major)

All students are required to fulfill at least one academic or professional area of specialization. In general, the course requirements in a major program are independent of the courses in Liberal Studies. However, when Liberal Studies courses function as introductory courses to a major, the student must select alternate courses in the Liberal Studies to fulfill those requirements. Thus, courses in a major cannot also meet the Liberal Studies requirement.

The course requirements for each major are described fully in the forthcoming pages. In addition, certification requirements for secondary majors may be found on page 81. Certification requirements for other majors are defined, where applicable, with the specific major program.

Major requirements are established by the faculties offering programs in areas of specialization. Multidisciplinary majors, such as Environmental Studies and Liberal Studies, and multidisciplinary courses or programs, such as Cooperative Education, Humanities Honors, and Peace Studies Concentration, include coursework from several faculties and are described more fully beginning on page 99.

GENERAL REQUIREMENTS FOR GRADUATION

Students qualifying for the baccalaureate degree are required to successfully complete 120 credits of course work normally patterned as follows for the full-time student:

30 credits of liberal studies, many of which can be taken in the first year.

30 credits in an area of Specialization usually begun in the second year of study.

60 credits of Electives taken throughout the final three years of study.

Variations in this pattern may be made through advanced standing or placement or by engaging in one or more of the opportunities available under the section entitled, Curriculum Individualization.

CURRICULUM INDIVIDUALIZATION

The degree programs outlined in the preceding pages of this section represent the minimum prescriptions for all students who wish to receive a baccalaureate degree from The William Paterson College. The College does, however, offer supplementary and variant options to students of unusual experiences, interests, and abilities.

CREDIT BY EXAMINATION

Undergraduate students may be granted course credit, advanced placement, or advanced standing. The criteria are school records, official documents, and various examinations referred to below. Credit thus gained may be used to accelerate or enrich a student's program. Acceleration means that requirements for a degree may be completed in a shorter period of time; enrichment means that a program may include work or courses beyond those ordinarily prescribed in a major or for a degree.

ADVANCED PLACEMENT

An entering freshman who presents an outstanding score on an appropriate College Board achievement test or by other acceptable evidence may, with departmental approval, enroll in an advanced course not generally open to freshmen. The William Paterson College participates in the Advanced Placement Program of the College Entrance Examination Board (CEEB). In this program, high schools offer accelerated or honors courses on a college-level to students in one or several fields: Biology, Chemistry, English, Foreign Languages, History, Mathematics, and Physics. Examinations covering these courses are administered annually by the CEEB and are graded by the Board on a scale of 5-1. The College accepts scores of 5, 4, or 3, and awards credit and, if desired, placement in intermediate courses according to demonstrated achievement.

SPECIAL AND CHALLENGE EXAMINATIONS

Currently registered undergraduate students in good standing may receive credit for certain courses by successful performance in examinations offered by academic departments, or in examinations of the College Level Examination Program (CLEP), or the College Proficiency

Examination Program (CPEP). In some instances, a supplementary laboratory, practicum, or performance examination may be required to satisfy major program requirements.

A student who thinks that he has sufficient knowledge acquired by experience or private study is encouraged to accelerate or enrich his college program in this way. When credit by examination is awarded by the College, it is so entered on the student's permanent record card. Failure in such examinations carries no penalty.

The credit by examination policy is subject to the following limitations:

1. No duplication of credit is permitted
2. No examination is permitted in a subject in which the student has pursued more advanced work for which he has received credit.
3. No examination is permitted in courses in which failing grades have been previously assigned.
4. The level of achievement required for award of credit is at least that which is normally specified and recommended by the American Council on Education and generally accepted practice.
5. Transfer students are entitled to advanced standing, subject to the above general limitations.

Such standardized and challenge examinations should not be undertaken lightly by the student, for acceptable standards and norms for satisfactory achievement are locally and nationally established, and the grades, thereby achieved, do become a part of the student's permanent record.

Full-time students who attempt these testing options are still expected to maintain a minimum 12-credit load during any semester of residence (exceptions may be approved for students in their final semester of degree completion).

Since college policy requires that a student must complete his last 30 credits in residence, a student may be awarded a maximum of 90 credits toward his baccalaureate degree through CLEP, CPEP, challenge examinations, and other credits awarded for advanced standing. Students who avail themselves of this maximum advanced standing credit will nevertheless

be expected to fulfill all major program prescriptions even though they may exceed the minimum 120 credits for the baccalaureate degree. The various testing options are more fully discussed below.

CLEP

The College-Level Testing Program is a nationally recognized series of general and subject examinations which test primarily the content and theory of undergraduate courses normally offered during the freshman and sophomore years. They are prepared, updated, and processed by the Educational Testing Service.

The General Examinations consist of five tests in the following areas: English, Humanities, Mathematics, Natural Sciences, and Social Studies-History. Successful completion of the full battery of general examinations would entitle a student to 30 credits, prorated for the student who attempts or succeeds in any of the separate examinations. The College recognizes and grants credit for a satisfactory performance above the 25th percentile.

Subject examinations are available and are generally equivalent to freshman-sophomore electives or introductory courses in major program sequences. Some subject examinations are equivalent to single semester, 3-credit courses; others to two-semester, 6 credit sequences. The College recognizes and grants credit for a satisfactory performance in these examinations for a minimum standard score of 45.

Credit for Writing Effective Prose, ENG 110, will be granted only upon successful completion of the subject examination: College Composition.

Credit will be awarded to students upon the initial test of the FIRST retest only. Since CLEP tests are primarily geared to freshman-sophomore levels, a student may be granted a maximum of 60 credits through these tests wherever earned.

Any currently enrolled student who has completed 60 credits or more is ineligible to take the CLEP General Examinations.

When applicable to the student's major program, such examinations in CLEP may be taken only with the prior permission of

the major department and the appropriate Associate Dean and only prior to the completion of 90 credits. Such permission in writing must be received by the Registrar prior to the student's application for CLEP subject examinations.

Prior to the completion of 90 credits, subject examinations may be taken for elective or Liberal Studies Credit. Special permission is not required.

CPEP

The College Proficiency Examination Program was established by the New York State Education Department. Examinations in the program are sometimes similar to and different from the CLEP series. The major New Jersey base employing CPEP examinations is the Thomas A. Edison College, founded in 1972, by the Board of Higher Education.

The William Paterson College recognizes and will accept a grade of C or better on some examinations presently available in this series, subject to the following restrictions:

1. No duplication of credit for CPEP and CLEP tests is permitted.
2. Students who have completed content and theory examinations may be required also to take local laboratory or performance examinations under special arrangements and with an additional fee.
3. Certain examinations may not be accepted in baccalaureate major programs and/or certification requirements. Students should consult major advisors about the acceptability and transferability of credit in their major sequence.
4. Unlike the CLEP tests, the College recognizes only the results of the initial testing. Students are cautioned that passing grades earned in these examinations are added to their permanent record.

MILITARY CREDIT

USAFI course credit is counted as "military" credit. Correspondence courses taken through an accredited college will be counted as academic credits. College correspondence courses, USAFI courses,

or a combination of both, are limited to a total of 30 credits. Speech performance courses taken by correspondence are not accepted for credit.

Credit for military service schools will be granted in accordance with the recommendations published by ACE in *A Guide to the Evaluation of Educational Experiences in the Armed Services*.

Since no military credit will be added to the record of a student in the degree completion program unless the work was completed prior to entry, any desired USAFI courses should be taken while still on station before enrolling at William Paterson College.

CREDIT FOR VETERANS

Following the recommendations of The American Council of Education, the College awards credit to qualified veterans for military and academic experiences. Each veteran who has served at least one complete year in service is awarded 3 credits for military service. In addition, veterans may apply for an evaluation of any courses they may have completed in special training schools, correspondence schools, and academic courses completed under the auspices of the United States Armed Forces Institute. The College adheres strictly to the minimum recommendation for credit by ACE and USAF.

AIR FORCE ROTC

William Paterson students can earn appointments as commissioned officers in the U.S. Air Force, through an ROTC crosstown agreement with New Jersey Institute of Technology. Students with two or more years of college remaining in either undergraduate or graduate studies are eligible to apply. Credits for all Aerospace Study courses, taught at NJIT, are applicable as free elective credits toward graduation from William Paterson College. For information on the conditions and benefits and procedures of the program, contact the Office of the Registrar.

INDEPENDENT STUDY

The purpose of the undergraduate program of Independent Study is to give students who have demonstrated academic competence and appropriate preparation an opportunity to undertake an individual study. Open to qualified undergraduates who have shown themselves capable of responsible self-direction, the program offers the student the opportunity to engage in, and to earn college credit for, a project planned jointly with a faculty sponsor — a project not already covered by an existing course.

REGISTRATION PROCEDURE FOR INDEPENDENT STUDY

The student who wishes to apply for Independent Study must take the following steps:

1. Obtain application forms from the office of the Associate Dean of the Division which houses the discipline in which he is taking the course.
2. Ask a faculty member to serve as supervisor of the proposed project.
3. Prepare a written proposal of the study project, which must be approved by the faculty supervisor.
4. Submit the written proposal to the Chairperson of the Sponsoring Faculty for approval. The student's proposal must be in the hands of the Faculty Chairperson by the midterm of the fall or spring preceding the proposed registration for Independent Study. The Faculty Chairperson, if he approves the project, will forward the proposal to the appropriate Associate Dean for approval. A letter of approval from the Associate Dean will constitute permission for the student to register for Independent Study. The student must present this letter of approval when he registers for the Independent Study.

EVALUATION PROCEDURE

At the completion of the Independent Study project, the student must take the following steps:

1. Present his completed study or written

report to his faculty supervisor who will evaluate it and grade it. The student must also submit, at this time, two copies of the form, COMPLETION OF INDEPENDENT STUDY, available from the Associate Dean's Office.

2. Submit the project and the forms to the sponsoring Faculty Chairperson for approval.
3. Upon approval from the Faculty Supervisor and Chairperson, submit completed study and approval forms to the appropriate Associate Dean. With his approval, the student will receive college credit for his work, and his project will be listed together, with its grade, on the student's official record.

At the successful completion of an Independent Study project, the student will receive credit for it.

Individual Faculties and Divisions may present additional academic requirements for application or evaluation.

A student may earn one to three credits for the Independent Study.

For additional Independent Study, application must be made directly to and be approved by the Dean or his or her designee. If the Dean approves, he shall refer it to the appropriate Associate Dean.

The student must assume the responsibility for preparing and submitting four copies of his completed study or the written report of it. One copy will be retained by the sponsoring faculty. Another will go to the Associate Dean to be filed for the Division. The faculty supervisor will retain one copy, and the student will retain the fourth copy.

CURRENT DEGREE PROGRAMS

THE COLLEGE OF ARTS AND SCIENCES

Jay Ludwig, Ph.D., Dean

**DIVISION OF FINE AND PERFORMING
ARTS — Richard Reed, Ed.D.,
Associate Dean**

**DIVISION OF HUMANITIES — Richard
Atnally, Ph.D., Associate Dean**

**DIVISION OF MATHEMATICS AND
NATURAL SCIENCES — Alvin Shinn,
Ph.D., Associate Dean**

**DIVISION OF SOCIAL AND BEHAVIORAL
SCIENCES — Mildred Weil, Ph.D.,
Associate Dean**

The principal aim of the College of Arts and Sciences is to offer a wide variety of majors in academic disciplines as well as to provide opportunities for multi-disciplinary programs. It prepares students for many kinds of professional and graduate study; it cooperates with other schools within the William Paterson College in offering related service programs for their majors.

The second aim of the College is to provide diverse opportunities for meaningful liberal education. It is responsible for the liberal studies courses which are taken, in part, by the entire student body of The William Paterson College. All students are expected to become fluent in their own language and are expected to give attention to the mathematics and natural sciences, the social and behavioral sciences, the humanities and the arts. It is hoped that such liberal studies will enlarge and augment the student's particular concerns in order to produce the resourceful and thinking graduate who has an understanding of himself, of the past, and of his contemporary world and universe.

DIVISION OF FINE AND PERFORMING ARTS

DIVISIONAL ASSIGNMENTS
ASSOCIATE PROFESSOR — J. Gentilini

INSTRUCTOR — K. Marshall

ART FACULTY

CHAIRPERSON — W. Finneran

PROFESSORS — J. Day, H. Leighton,
K. Lunde, J. Lynch, L. Paris

ASSOCIATE PROFESSORS — G. Battcock,
W. Finneran, W. Muir, D. Raymond,
R. Reed

ASSISTANT PROFESSORS — A. Loving,
J. Ruban, G. Schubert, S. Smith,
C. Steen

INSTRUCTORS — D. Haxton, D. Horton,
A. Lazarus, C. Magistro, T. McKeen,
M. Rothman, C. Savage, E. Schreier

The program in Art leading to a Bachelor of Arts Degree is designed to develop an awareness of quality in a work of art, to encourage concentration in a central interest as intensively as possible, and to extend the repertoires of visual experience and expression through broad exploration in various methods and materials.

The major may prepare the student for professional work in the visual arts or for advance study at the graduate level. The art major may choose a concentration in such areas as Art History, Crafts, Graphic Arts, Painting, Sculpture, or a combination of the variety of courses available. A studio major in art may also decide to minor in Art History. The graduate of the art program will be able to express himself fluently in his area of concentration.

Careers in education are available to qualified graduates who supplement their major with necessary certification requirements. Interested students should follow the Secondary Education (K-12) Certification requirements listed on page 00 under The College of Human Services.

Depending upon the student's capacity and interest, there exist career opportunities in museum or gallery work, commercial art and technical fields, or other related areas.

For those students who are qualified and who desire an in-depth concentration in Studio Art or Art History, there is an additional sequence of courses available through advisement. Write to the Art Department Chairperson for further information.

ENTRANCE REQUIREMENTS TO THE ART MAJOR

The studio major must show satisfactory performance in three of the prescribed FOUNDATIONS courses and ART 110 (Modern Art I). An informal portfolio review

at the end of the sophomore year will serve as guidance to the prospective art major. Admission to the Art History concentration is dependent upon completion of ART 110 (Modern Art I), ART 291 (Western Art I), ART 292 (Western Art II), an academic grade point average of 2.5 and subsequent approval, upon interview, by the Committee on the Art History Concentration.

Transfer students who expect to be art studio majors in their junior or senior years must present a portfolio for faculty review and must have at least an academic grade point average of 2.5 in a minimum of two art courses, including at least one course in Art History. Transfer students who plan a concentration in Art History must have an academic grade point average of 2.5 and will be interviewed by the Committee on the Art History.

The Art Major

A. Major Courses³ (total 30 cr.)

(Required Foundation Courses)

ART	160	Graphic Delineation	3 cr
ART	161	Drawing	3 cr
ART	162	Two-Dimensional Design	3 cr
ART	163	Color	3 cr
ART	164	Three-Dimensional Design	3 cr

PLUS: a minimum of **15 ADDITIONAL CREDITS** of *Art Studio Courses* 15 cr

B. Directed Electives (total 9 cr)

ART	110	Modern Art I ⁴	3 cr
ART	291	Western Art I	3 cr
ART	292	Western Art II	3 cr

C. Certification Requirements (total 43 cr)

Students who are interested in obtaining teacher **certification in Art** should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following. **ACADEMIC CONTENT REQUIREMENTS:**

Choose **THREE COURSES**, one in each of the following groupings:

See footnotes, page 249.

ART	321	Painting I (Methods and Materials)	3 cr
OR			
ART	341	Sculpture I	

ART	351	Printmaking I	3 cr
OR			
ART	371	Photography I	

ART	431	Jewelry/Metalsmithing	3 cr
OR			
ART	335	Weaving	
OR			
ART	361	Ceramics I	

(ACADEMIC CONTENT TOTAL = 9 cr)

NOTE: The Art Faculty recommends that a student build his major areas beyond minimum requirements. Students who pursue a **Concentration** will be assisted and guided in their course selection by their academic advisors in the Art Faculty.

THE ART HISTORY CONCENTRATION

(total 39 cr)

The 15 *foundation credits* are required (See page 52.) 15 cr

PLUS: At least **ONE** course from *each* of the following groups:

ART	392	Ancient Art	3 cr
OR			
ART	393	Medieval Art	
<hr/>			
ART	394	Northern Renaissance Art	3 cr
OR			
ART	395	Renaissance Art (Italian)	

PLUS:

ART	396	Baroque and Rococo Art	3 cr
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PLUS:

ART	120	Ideas in Contemporary Art	3 cr
OR			
ART	140	History of Film	
OR			
SOC	328	Sociology of the Arts	

PLUS: An additional **9** *Art History* credits by advisement. 9 cr

PLUS: THREE credits in *History* selected from the following courses: 3 cr

HIST	110	Heritage of the Ancient World	
HIST	120	Heritage of the Medieval World	
HIST	130	The Modern World	
HIST	140	Chinese Civilization	
HIST	150	Latin American Civilization	

THE MINOR IN STUDIO ART

(total 18 cr)

Choose **4** of the following courses: 12 cr

ART	160	Graphic Delineation	
ART	161	Drawing	
ART	162	Two-Dimensional Design	
ART	163	Color	
ART	164	Three-Dimensional Design	

PLUS: Two additional *studio elective* courses. 6 cr

NOTE: It is recommended that a student electing a minor in studio art take at least six credits in *Art History*.

THE MINOR IN ART HISTORY

(total 18 cr)

ART	110	Modern Art	3 cr
ART	291	Western Art I	3 cr
ART	292	Western Art II	3 cr

PLUS: **THREE** additional elective courses in *Art History*. 9 cr

NOTE: It is suggested that a student who wishes to minor in Art History also elect six credits in the *FOUNDATION* area (See page 52).

THE COMMUNICATION FACULTY

CHAIRPERSON — S. Berman

PROFESSORS — A. Elwell, A. Maltese

ASSOCIATE PROFESSORS —
U. Bonsignori, A. Lenrow

ASSISTANT PROFESSORS — C. Adelman,
S. Berman, J. Chamberlain, E. Epstein,
G. Fleck, H. Jackson, R. McCartney,
M. Rhea, S. Smiley

INSTRUCTOR — D. Peck

The Communication Faculty offers concentrations in Interpersonal Communication, Radio-Television, Film, and Journalism.

The Interpersonal Communication concentration provides courses in the theory and practice of verbal and extraverbal communication in contexts including one-to-one, group, organization, and public communication. The purpose is to prepare the student for a variety of career options involving personal skill and knowledge in communication arts.

The Radio-Television concentration prepares the student for a career in the production, performance, and criticism of communication through radio and television media. Students will be offered courses in theory and in practice of the mass communication arts to develop understanding and skill in their profession.

The Film concentration offers courses in theory, production, and analysis of film in its various genre and potential uses, toward development of the student's future as a filmmaker.

The Journalism concentration offers courses in both print and broadcast media designed with a two-fold purpose: 1) to prepare students for careers in the field, and 2) to make students more sophisticated readers-listeners-viewers of the news media. While emphasis is placed on writing, students learn all phases of the news gathering and reporting process.

A variety of professional opportunities are open to the Communication Major. These range from careers in journalism (including newspapers, magazines, radio news and television news) to radio and television production (including announcing and station management) and from films (including filmmaking, editing, and criticism) to a variety of business, government, public, and educational occupations such as public relations, personnel work, sales and supervision training, etc. The Communication Major also provides an excellent undergraduate background for students intending to pursue graduate degrees in law, business, and areas of public service, government, or education.

See footnotes, page 249.

THE COMMUNICATION MAJOR

A. Major Courses³

(total 30 cr)

NOTE: The following courses are required of all *Communication Majors*:

COMM 110	Communication in Action	3 cr
COMM 120	Mass Communication	3 cr
COMM 444	Colloquium in Communication	3 cr

PLUS: Any **TWO** of the following courses:

6 cr

COMM 220	Radio and Television
COMM 234	Film as Medium
COMM 250	Journalism
COMM 260	Oral Interpretation
OR	
COMM 266	Dynamics of Communication

PLUS: 15 CREDITS of courses to be chosen from among the offerings in the *Communication Department* with a catalog number of **200 or above** 15 cr

B. Certification Requirements

(total 40 cr)

Students who are interested in obtaining teacher **certification in Speech and Dramatic Arts** should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following **ACADEMIC CONTENT REQUIREMENTS**:

THEA 210	Playscripts I	3 cr
OR		
THEA 260	Playscripts II	
OR		
THEA 310	History of Theatre to 1850	
OR		
THEA 360	History of Theatre from 1850	

PLUS:

COMM 260	Oral Interpretation	3 cr
COMM 363	Public Speaking	3 cr
THEA 161	Acting: Principles of Characterization	3 cr

THEA	162	Stagecraft I	3 cr
THEA	163	Stagecraft Laboratory	1 cr
PATH	364	Voice and Speech Production	3 cr

(ACADEMIC CONTENT TOTAL = 19 cr)

NOTE: Communication majors who are interested in teaching are advised, for placement purposes, to take a minor in English plus a course in linguistics.

THEATRE FACULTY

CHAIRPERSON — B. Gulbranson

PROFESSORS — R. Leppert, J. Ludwig,
J. Rodgers

ASSOCIATE PROFESSORS — T. Brennan,
W. Grant, B. Gulbranson, B. Sandberg,
J. Young

ASSISTANT PROFESSORS — R. Morgan,
M. Tobin, R. Turick

INSTRUCTORS — A. Krivitski

To develop the individual's creative potential; to explore human situations and relationships in an artistic context, thereby gaining insight into one's own life; and to understand and appreciate the Dramatic Arts in theory and practice . . . these are the goals of the Dramatic Arts Program which lead to a Bachelor of Arts Degree.

The Dramatic Arts have long been recognized as a composite endeavor which combines all of the arts, most of the crafts, and some of the sciences. For today's student who wishes to increase his or her theatrical sensibilities, The Dramatic Arts Major Program is performance-oriented and craft-based. The sequence of courses is designed to relate the ancient world to the present day, to bring critical appraisal into direct contact with creative experiment, and to provide a fund of life experiences centered upon the comparison and clarification of values . . . moral, social, and personal.

The major program prepares the student for advanced training at the graduate level and employment viability in the theatre, as well as in related areas such as arts administration, communication arts, and public relations.

Requirements for Admission to the Dramatic Arts Major

Although no formal requirement for admission is necessary, the Theatre Faculty recommends that the following three courses (9 credits) be taken by the student who has no formal training in this area:

Foundations Courses

THEA	101	Introduction to Theatre
THEA	102	Fundamentals of Acting
THEA	103	Basic Design for the Theatre

THE DRAMATIC ARTS MAJOR

(The student who wishes to complete a major program in Dramatic Arts must take the fifteen credit required core and, then, elect fifteen credits from the courses listed under Major Electives.)

A. Major Courses³

(total 30 cr)

Required Core:

THEA	161	Acting: Principles of Characterization	3 cr
THEA	162	Stagecraft I	3 cr
THEA	210	Playscripts I	3 cr
THEA	232	Basic Costuming and Makeup	3 cr

PLUS: THREE *Practicum Experiences:*

THEA	111	Theatre Administration Laboratory	1 cr
THEA	112	Technical Theatre Laboratory	1 cr
THEA	163	Stagecraft Laboratory	1 cr

B. Major Electives

(total=15 cr)

(Through advisement, the student will elect a **total of 15 credits** from *either one OR both* of the following groups of courses.)

1. *Acting/Directing*

THEA	213	Acting: Scene Study
THEA	223	Stage Speech I
THEA	262	Readers Theatre
THEA	312	Directing
THEA	320	Movement Training for the Actor I
THEA	372	Makeup for the Actor
THEA	375	Acting: Alternative Techniques
THEA	376	Acting: Musical Theatre
THEA	412	Children's Theatre

See footnotes, page 249.

2. Design/Technical Theatre

THEA	330	Scene Painting I
THEA	332	Costume Construction
THEA	333	Stage Management
THEA	334	Stage Lighting
THEA	379	Scene Design I
THEA	380	Scene Design II
THEA	384	Advanced Lighting and Sound
THEA	430	Scene Painting II
THEA	481	Costume Design

C. Directed Electives

(total 9 credits)

(Each student must **elect nine credits** from the following courses in *the history and criticism of theatre and drama*.)

THEA	212	Trends in Contemporary Theatre and Drama
THEA	310	History of Theatre to 1850
THEA	360	History of Theatre from 1850
THEA	361	Theatre Criticism
THEA	363	American Theatre and Drama

NOTE: *Areas of Specialization.* For the student who desires an advanced in-depth experience in either Acting or Theatre Design, a sequence of courses is available through advisement. For further information, write to Theatre Chairperson, Theatre Faculty, Coach House Theatre, William Paterson College, Wayne, New Jersey 07470 or call (201) 595-2335.

MUSIC FACULTY

CHAIRPERSON — R. Latherow

PROFESSORS — H. Aitken, D. Fornuto,
M. Krivin, R. Latherow

ASSOCIATE PROFESSORS — J. Anderson,
A. Blank, R. DesRoches, D. Heier,
S. Opalach, W. Woodworth

ASSISTANT PROFESSORS — P. Finney,
R. Foley, D. Garcia, N. Guptill,
G. Kirkpatrick, J. Kresky, M. O'Connor,
J. Weidensaul

INSTRUCTORS — V. Hill, T. Jones

The Music Faculty offers two degrees: the Bachelor of Arts in Music and the Bachelor of Science in Music Education. The latter

fulfills certification requirements for public school music teaching in New Jersey, grades K-12. Both programs are structured to reflect the multifaceted demands on today's and tomorrow's musicians.

The B.A. and B.S. contain the best of both musical worlds: the flexible, innovative ideas in contemporary music in combination with what is finest in the traditional. As a result, students pursue a program of study eminently suited to meet the requirements of a professional life in music.

Entrance Requirements to the Music Major

A performance audition is required of all applicants to the B.A. Applied Music and Jazz Studies Concentration and the B.S. in Music Education Programs. The evaluation by the audition jury will be a personal interview and examinations in theory, keyboard, and aural skills. Minimum performance requirements follow:

Piano: An invention by Bach, a first movement of a sonata by Haydn, Mozart or Beethoven, (except Op. 27, No. 2 in C sharp minor), a work by a Romantic or Contemporary composer. At least one selection must be played from memory. Major and minor scales and arpeggios.

Organ: Student must have a piano background of Bach Two-part Inventions and earlier Mozart or Beethoven Sonatas. It is desirable for the student to play a composition of Bach, a romantic work, and a modern work.

Voice: A basic requirement is the demonstration of vocal potential. At least one art song in any language. It is suggested that the selection be memorized.

Strings: A sonata or concert piece of moderate difficulty. Major and minor scales and a chromatic scale covering the complete range.

Woodwinds: A sonata movement or concert piece of moderate difficulty. Major and minor scales and a chromatic scale covering the complete range.

Brass: A movement of a sonata or concerto of moderate difficulty. Major, minor and chromatic scales, articulated and slurred.

Percussion: Demonstration of snare drum rudiments. A basic technical knowledge of the mallet instruments. Elementary exercises for timpani.

Guitar: Segovia Scales, Major and Minor, one Etude by either Sor (Segovia ED), Carcassi, or Aguado. Two concert pieces of the student's own choice from either "pre"-Baroque (ex. De Visee, Sanz, Milan, etc.), Baroque (Bach, Weiss, etc.), or Romantic Spanish (Tarrega ex. Adelita; Liobet ex. "El Testament D'Amelia").

Jazz Entrance Requirements

Piano and Guitar: Major and Minor scales. Dorian and Mixolydian modes. Basic 7th chords. Sight read lead sheets.⁵ Play several standard or original tunes with some improvisation. Blues at various tempi.

Single Line Instruments: Major and Minor scales. Dorian and Mixolydian modes. Basic 7th chords. Sight read lead sheets.⁵ Play several standard or original tunes with improvisation. Blues at various tempi.

Drums: Play time in basic duple and triple meter; also 5/4, 5/8, 7/4, 7/8, 9/4, 9/8. Perform various styles: Latin, rock, and jazz. Play breaks in various meters and various styles within steady time. Extended solo improvisation.

The B.A. degree programs are designed for students who desire a liberal education with emphasis on music while obtaining a diversified education in the liberal arts. A student chooses one of three concentrations: 1) Applied Music, 2) Jazz Studies, or 3) Musical Studies. (None of these three concentrations certifies the student to teach music in the public schools of New Jersey). Students interested in jazz should choose the Jazz Studies Concentration; students interested in traditional performance should choose the Applied Music Concentration; and students who desire a less specialized musical education should choose the Musical Studies Concentration.

B.A. APPLIED MUSIC CONCENTRATION

A. Major Courses³

(total 32 cr)

MUS	160	Freshman Comprehensive Musicianship I	3 cr
MUS	180	Freshman Ear Training I	1 cr
MUS	161	Freshman Comprehensive Musicianship II	3 cr
MUS	181	Freshman Ear Training II	1 cr

MUS	162	Applied Music Major	2 cr
MUS	163	Applied Music Major	2 cr
MUS	260	Sophomore Comprehensive Musicianship I	3 cr
MUS	280	Sophomore Ear Training I	1 cr
MUS	261	Sophomore Comprehensive Musicianship II	3 cr
MUS	281	Sophomore Ear Training II	1 cr
MUS	262	Applied Music Major	2 cr
MUS	263	Applied Music Major	2 cr
MUS	234	Sophomore Recital Performance	0 cr
MUS	362	Applied Music Major	2 cr
MUS	310	Junior Recital Performance I	0 cr
MUS	363	Applied Music Major	2 cr
MUS	311	Junior Recital Performance II	0 cr
MUS	462	Applied Music Major	2 cr
MUS	463	Applied Music Major	2 cr
MUS	464	Senior Recital Performance	0 cr

NOTE: All Students in this concentration are **required to attend 8 semesters of recital hour.**

B. Directed Electives

(total 16 cr)

MUS	207	Music History and Literature I	3 cr
MUS	208	Music History and Literature II	3 cr
MUS	304	Studies in Music	3 cr
MUS	164	Functional Class Piano I	1 cr
MUS	165	Functional Class Piano II	1 cr
MUS	264	Functional Class Piano III	1 cr
MUS	265	Functional Class Piano IV	1 cr
MUS	401	Twentieth Century Music I	3 cr

NOTE: An entrance audition is **required** for admission to this concentration program.

B.A. CONCENTRATION IN JAZZ STUDIES

A. Major Courses³

(total 49 cr)

MUS	160	Freshman Comprehensive Musicianship I	3 cr
-----	-----	---------------------------------------	------

MUS	180	Freshman Ear Training I	1 cr
MUS	161	Freshman Comprehensive Musicianship II	3 cr
MUS	181	Freshman Ear Training II	1 cr
MUS	162	Applied Music Major	2 cr
MUS	163	Applied Music Major	2 cr
MUS	260	Sophomore Comprehensive Musicianship I	3 cr
MUS	280	Sophomore Ear Training I	1 cr
MUS	262	Applied Music Major	2 cr
MUS	263	Applied Music Major	2 cr
MUS	234	Sophomore Recital Performance	0 cr
MUS	164	Functional Class Piano I	1 cr
MUS	165	Functional Class Piano II	1 cr
MUS	268	Functional Class Piano-Jazz Majors	1 cr
MUS	269	Functional Class Piano-Jazz Majors	1 cr
MUS	362	Applied Music Major	2 cr
MUS	310	Junior Recital Performance I	0 cr
MUS	363	Applied Music Major	2 cr
MUS	311	Junior Recital Performance II	0 cr
MUS	462	Applied Music Major	2 cr
MUS	463	Applied Music Major	2 cr
MUS	464	Senior Recital Performance	0 cr
MUS	320	Jazz Improvisation I	2 cr
MUS	321	Jazz Improvisation II	2 cr
MUS	322	Jazz Improvisation III	2 cr
MUS	323	Jazz Improvisation IV	2 cr
MUS	220	Jazz History	3 cr
MUS	270	Jazz Arranging I	3 cr
MUS	271	Jazz Arranging II	3 cr

NOTE: All Students in this concentration are **required to attend 8 semesters of recital hour.**

B. Directed Electives

(total 18 cr)

MUS	261	Sophomore Comprehensive Musicianship II	3 cr
MUS	281	Sophomore Ear Training II	1 cr
PHYS	110	Introduction to Physical Science ⁶	3 cr
PHYS	270	Sound and Acoustics	3 cr

PLUS: Jazz Performing Groups (8 semesters) 8 cr

NOTE: The student will take eight semesters applied music in his major instrument,⁷ however, lessons will be in the form of jazz instruction — for example, jazz trumpet, jazz saxophone, etc. The student will study with a jazz specialist,⁸ either a full-time faculty member or an adjunct instructor. An entrance audition is required for admission to this concentration program.

B.A. MUSICAL STUDIES

A. Major Courses³

(total 20 cr)

MUS	160	Freshman Comprehensive Musicianship I	3 cr
MUS	180	Freshman Ear Training I	1 cr
MUS	161	Freshman Comprehensive Musicianship II	3 cr
MUS	181	Freshman Ear Training II	1 cr
MUS	260	Sophomore Comprehensive Musicianship I	3 cr
MUS	280	Sophomore Ear Training I	1 cr
MUS	261	Sophomore Comprehensive Musicianship II	3 cr
MUS	281	Sophomore Ear Training II	1 cr
MUS	164	Functional Class Piano I	1 cr
MUS	165	Functional Class Piano II	1 cr
MUS	264	Functional Class Piano III	1 cr
MUS	265	Functional Class Piano IV	1 cr

B. Directed Electives

(total 18 cr)

MUS	207	Music History and Literature I	3 cr
MUS	208	Music History and Literature II	3 cr
MUS	304	Studies in Music	3 cr
MUS	401	Twentieth Century Music I	3 cr

PHYS	110	Introduction to Physical Science ⁶	3 cr
PHYS	270	Sound and Acoustics	3 cr

THE BACHELOR OF SCIENCE IN MUSIC EDUCATION

(New Jersey Public School Teaching Degree, K-12)

Two concentrations are offered in the B.S. program. Students who are admitted as performance majors in keyboard, guitar, or voice must ordinarily choose the concentration in the preparation for teaching Vocal/General Music in grades K-12.⁹

Students are admitted to the B.S. Music Education programs on a probationary status for the freshman and sophomore years. Full status as a music education major will be determined prior to the beginning of the junior year.

NOTE: Performance majors in keyboard, guitar or voice who desire to choose the INSTRUMENTAL concentration must also meet the entrance audition requirements on a band or orchestral instrument.

B.S. IN MUSIC EDUCATION (VOCAL CONCENTRATION)

A. Major Courses³

(total 61 cr)

MUS	101	Flute and Clarinet	1 cr
MUS	103	Trumpet Class	1 cr
MUS	105	Violin Class	1 cr
MUS	107	Guitar Class	1 cr
MUS	108	Percussion Class	1 cr
MUS	160	Freshman Comprehensive Musicianship I	3 cr
MUS	180	Freshman Ear Training I	1 cr
MUS	161	Freshman Comprehensive Musicianship II	3 cr
MUS	181	Freshman Ear Training II	1 cr
MUS	162	Applied Music Major	2 cr
MUS	163	Applied Music Major	2 cr
MUS	164	Functional Class Piano I	1 cr
MUS	165	Functional Class Piano II	1 cr
MUS	166	Voice Class I ¹⁰	1 cr
MUS	167	Voice Class II ¹⁰	1 cr
MUS	205	Applied Music Minor	1 cr

MUS	206	Applied Music Minor	1 cr
MUS	207	Music History and Literature I	3 cr
MUS	208	Music History and Literature II	3 cr
MUS	260	Sophomore Comprehensive Musicianship I	3 cr
MUS	280	Sophomore Ear Training I	1 cr
MUS	261	Sophomore Comprehensive Musicianship II	3 cr
MUS	281	Sophomore Ear Training II	1 cr
MUS	262	Applied Music Major	2 cr
MUS	263	Applied Music Major	2 cr
MUS	234	Sophomore Recital Performance	0 cr
MUS	266	Functional Class Piano-Advanced	1 cr
MUS	267	Functional Class Piano-Advanced	1 cr
MUS	301	Form and Analysis	3 cr
MUS	302	Arranging	3 cr
MUS	305	Applied Music Minor	1 cr
MUS	306	Applied Music Minor	1 cr
MUS	307	Elementary Conducting	2 cr
MUS	308	Choral Conducting	2 cr
MUS	362	Applied Music Major	2 cr
MUS	310	Junior Recital Performance I	0 cr
MUS	363	Applied Music Major	2 cr
MUS	311	Junior Recital Performance II	0 cr
MUS	462	Applied Music Major	2 cr
MUS	464	Senior Recital Performance	0 cr

NOTE: All students in this concentration are **required to attend 7 semesters of recital hour. 6 semesters of Vocal Seminar (MUS 209) are also required of voice majors.**

B. Directed Electives

(total 6 cr)

PHYS	110	Introduction to Physical Science ⁶	3 cr
PHYS	270	Sound and Acoustics	3 cr

C. Certification Requirements

(total 40 cr)

Students should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

NOTE: Students who are admitted as performance majors in band or orchestral instruments must choose the **CONCENTRATION IN INSTRUMENTAL MUSIC**. This concentration provides for specialization in the preparation for teaching **INSTRUMENTAL MUSIC**, grades K-12.⁹

B.S. IN MUSIC EDUCATION (INSTRUMENTAL CONCENTRATION)

A. Major Courses³

(total 61 cr)

MUS	101	Flute and Clarinet	1 cr
MUS	102	Double Reeds Class	1 cr
MUS	103	Trumpet Class	1 cr
MUS	104	Low Brass Class	1 cr
MUS	105	Violin Class	1 cr
MUS	106	Low Strings Class	1 cr
MUS	107	Guitar Class	1 cr
MUS	108	Percussion Class	1 cr
MUS	160	Freshman Comprehensive Musicianship I	3 cr
MUS	180	Freshman Ear Training I	1 cr
MUS	161	Freshman Comprehensive Musicianship II	3 cr
MUS	181	Freshman Ear Training II	1 cr
MUS	162	Applied Music Major	2 cr
MUS	163	Applied Music Major	2 cr
MUS	164	Functional Class Piano I	1 cr
MUS	165	Functional Class Piano II	1 cr
MUS	166	Voice Class I	1 cr
MUS	167	Voice Class II	1 cr
MUS	207	Music History and Literature I	3 cr
MUS	208	Music History and Literature II	3 cr
MUS	260	Sophomore Comprehensive Musicianship I	3 cr
MUS	280	Sophomore Ear Training I	1 cr
MUS	261	Sophomore Comprehensive Musicianship II	3 cr
MUS	281	Sophomore Ear Training II	1 cr
MUS	262	Applied Music Major	2 cr
MUS	263	Applied Music Major	2 cr

MUS	234	Sophomore Recital Performance	0 cr
MUS	264	Functional Class Piano III	1 cr
MUS	265	Functional Class Piano IV	1 cr
MUS	301	Form and Analysis	3 cr
MUS	302	Arranging	3 cr
MUS	307	Elementary Conducting	2 cr
MUS	309	Instrumental Conducting	3 cr
MUS	362	Applied Music Major	2 cr
MUS	310	Junior Recital Performance I	0 cr
MUS	363	Applied Music Major	2 cr
MUS	311	Junior Recital Performance II	0 cr
MUS	462	Applied Music Major	2 cr
MUS	464	Senior Recital Performance	0 cr

NOTE: All students in this concentration are **required to attend 7 semesters of recital hour**.

B. Directed Electives

(total 6 cr)

PHYS	110	Introduction to Physical Science ⁶	3 cr
PHYS	270	Sound and Acoustics	3 cr

C. Certification Requirements

(total 40 cr)

Students should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

NOTE: Students with previous college-level training may receive "credit by examination" and advanced placement in any music class. For example, most keyboard performance majors will not need to take four semesters of Functional Class Piano.

DIVISION OF HUMANITIES

HUMANITIES HONORS COURSES

The Humanities Division offers a series of inter-disciplinary courses and individual study opportunities for academically talented students in English, philosophy, history and foreign languages. The courses involving faculty from all these disciplines under the Associate Dean's direction, is

meant to provoke new excitement in learning as well as to provide solid and comprehensive humanistic education.

Students must fulfill fifteen hours of Honors work while majoring in any of the field of English, philosophy, history and foreign languages. Students outside the Humanities Division must apply to the respective Dean for special permission to enter the program. See page 105 for further information.

ENGLISH FACULTY

CHAIRPERSON — S. Hand

PROFESSORS — P. Cioffari, M. Davidow, D. Duclos, R. Jaarsma, R. Kloss, J. Mahoney, J. McRae, V. Mollenkott, R. Nickson, J. Runden

ASSOCIATE PROFESSORS — R. Atnally, E. DeGroot, J. Fulton, V. Granger, F. Manno, A. Mazzella, D. Thomas, S. Wertheim

ASSISTANT PROFESSORS — D. Edwards, S. Hand, J. Hartman, J. Hauser, J. Hoban, S. McNamara, S. Radner, D. Rollo, L. Vogt

INSTRUCTORS — A. Garcia, S. Kistler, E. Lowe, J. Sigel, B. Stevens

The English Faculty offers courses in English, American, and Comparative Literature; Linguistics, Criticism, and Writing; and Contemporary Themes, Drama, and Film, leading to the Bachelor of Arts Degree in English. The objectives of the program are to heighten students' awareness of their literary, linguistic, and cultural heritage; to increase their ability to articulate their ideas; and to prepare them for careers.

Students majoring in English often choose careers in teaching; law; journalism, publishing; editing; public relations; advertising; writing film and TV scripts, plays, novels, stories or poems; computer technology; and finance.

English majors who intend to teach in the secondary school should follow the Secondary Education (K-12) Certification requirements listed on page 81 under The College of Human Services. English majors

who intend to pursue a graduate program in English are strongly advised to satisfy the intermediate reading level in a foreign language.

The English Major

A. Major Courses³

(total 30 cr)

Survey Courses:

(Choose 5 out of 6)

15 cr

- | | | |
|-----|-----|--|
| ENG | 301 | English Literature through the Neoclassical Period |
| ENG | 302 | English Literature: Romantic through Modern |
| ENG | 303 | American Literature to 1865 |
| ENG | 304 | American Literature 1865-1914 |
| ENG | 305 | Literature of Western Europe to the Renaissance |
| ENG | 306 | Literature of Western Europe; Renaissance through Modern |

Period Courses:

(CHOOSE 2: at least ONE must be before 1900)

6 cr

Before 1900

- | | | |
|-----|-----|---|
| ENG | 310 | Elizabethan and Jacobean Drama |
| ENG | 311 | Literature of the English Renaissance |
| ENG | 312 | Donne, Jonson, and Their Contemporaries |
| ENG | 313 | The Age of Dryden, Pope, and Swift |
| ENG | 314 | The Age of Johnson |
| ENG | 315 | Romantic Movement in England |
| ENG | 316 | Victorian Literature |
| ENG | 320 | The English Novel: Defoe to Austen |
| ENG | 321 | The English Novel: Dickens to Hardy |
| ENG | 322 | Nineteenth Century European Novel |

After 1900

- | | | |
|-----|-----|------------------------------------|
| ENG | 317 | Modern American Literature |
| ENG | 318 | Modern British Literature |
| ENG | 319 | Modern British and American Poetry |

ENG 323 Twentieth Century
European Novel

PLUS: ONE of the following *writing*
courses: 3 cr

ENG 330 Critical Writing
ENG 331 Creative Writing
COMM 250 Journalism

PLUS: ONE of the following *language*
courses: 3 cr

ENG 401 Linguistics and
Grammar
ENG 402 Development of the
English Language

PLUS: ONE of the following
Specialized Author or Seminar
courses: 3 cr

ENG 410 Chaucer and His Age
ENG 411 Shakespeare:
Comedies and
Histories
ENG 412 Shakespeare:
Tragedies and
Romances
ENG 413 Milton
ENG 480 Seminar in English
Literature
ENG 481 Seminar in American
Literature

NOTE: The following course is
recommended for English majors:

ENG 200 Methods of Critical
Analysis 3 cr

It is advisable for the prospective
English major to take ENG 110 the
first semester of the freshman year
and ENG 200 the second semester.

B. Certification Requirements (total 40 cr)

Students who are interested in obtaining
teacher **certification in English** should
follow the *Secondary Education (K-12)*
Certification Requirements (letter D) as
explained on page 82.

In **ADDITION** to these requirements,
students seeking certification must
complete the following **ACADEMIC**
CONTENT REQUIREMENTS:

A course in Speech Arts or Dramatics 3 cr
(**ACADEMIC CONTENT TOTAL = 3 cr**)

THE MINOR IN ENGLISH

(total 18 cr)

ENG	301	English Literature through the Neoclassical Period	3 cr
ENG	302	English Literature: Romantic through Modern	3 cr
ENG	303	American Literature to 1865	3 cr
ENG	304	American Literature: 1865-1914	3 cr
ENG	305	Literature of Western Europe: to the Renaissance	3 cr
ENG	306	Literature of Western Europe: Renaissance through Modern	3 cr

NOTE: With the chairperson's
permission, 6 credits of other
English courses may be substituted
for two of the required courses in
the minor.

THE FOREIGN LANGUAGES FACULTY

CHAIRPERSON — W. Rubio

PROFESSOR — C. Barry

ASSOCIATE PROFESSORS — W. Rubio,
O. Saa

ASSISTANT PROFESSORS — A. Casey,
D. Chao, O. de la Suaree, A. Sully

INSTRUCTOR — J.L. Rose

The principal aim of the Faculty of Foreign
Languages is threefold: 1) to further the
development of majors and minors
(presently, majors and minors are offered
in Spanish and French); 2) to provide
courses which may be used in partial
fulfillment of the Liberal Studies
requirements in the Humanities; and 3) to
offer, whenever possible, free electives in
foreign language for the college and for the
community at large.

The most important single objective of the
Faculty is to develop major and minor
programs which will provide cultural
enrichment to the graduate of William
Paterson College.

Career opportunities stemming from a
major in foreign language may be found in
business or in social service careers in
which bilingualism is valued. Career

opportunities may also be found in researching, editing, translation, technical writing, airline positions, UN or other bilingual positions. Those who wish to pursue graduate work may aspire to college-level teaching positions. The most traditional career opportunity for the major in a foreign language lies in secondary school teaching or in FLES (Foreign Language Elementary School) programs.

Spanish and French majors who intend to teach in the secondary schools should follow the Secondary Education (K-12) Certification requirements listed on page 81 under The College of Human Services.

A Junior Year Abroad Program is available for qualified students who receive approval of the department.

THE SPANISH MAJOR

Pre-requisites for the Spanish Major

Three or four years of high school Spanish, or a minimum of 580 in CEEB, or a near native fluency.

Advanced placement may be obtained by standard examination or by decision of the Spanish Studies Committee.

Students with little or no Spanish background who wish to enter the Spanish Major should complete SPAN 110 (Basic Spanish I) SPAN 111 (Basic Spanish II), and SPAN 112 (Intermediate Spanish I).

A. Major Courses³

(total 31 cr)

SPAN	113	Intermediate Spanish II	4 cr
SPAN	221	Spanish: The Spoken Language	3 cr
SPAN	222	Advanced Spanish Conversation and Composition	3 cr

SPAN	230	Introduction to Spanish Literature I	3 cr
OR			

SPAN	231	Introduction to Spanish Literature II	
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SPAN	240	Hispanic Culture I: Spain	3 cr
OR			

SPAN	241	Hispanic Culture II: Spanish America	
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PLUS: ONE course from each of the following five groups: 15 cr

1. Golden Age

SPAN	331	The Golden Age of Spain	
SPAN	435	Cervantes and His Age	
SPAN	481	Spanish Seminar: Quevedo, The Spanish Mystics, The Picaresque Novel, etc.	

2. Nineteenth and Twentieth Century Literature of Spain

SPAN	330	Spanish Literature of the Twentieth Century	
SPAN	334	Romanticism in Spain: Prose and Poetry	
SPAN	434	The Nineteenth Century Novel of Spain	

3. Spanish American Literature to 1900

SPAN	430	The Literature of Spanish America to Modernism	
SPAN	432	The Novel in Spanish America I	
SPAN	436	The Modern Spanish American Essay	

4. Spanish American Literature: Modern

SPAN	431	The Modern Literature of Spanish America	
SPAN	433	The Novel in Spanish America II	
SPAN	480	Seminar	

5. Spanish Drama

SPAN	332	The Drama of the Golden Age	
SPAN	335	Modern Spanish American Drama	
SPAN	337	The Romantic Theatre in Spain	

B. Certification Requirements

(total 40 cr)

Students who are interested in obtaining teacher certification should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

THE MINOR IN SPANISH

(total 18 cr)

SPAN	221	Spanish: The Spoken Language	3 cr
OR			
SPAN	222	Advanced Spanish Conversation and Composition	

See footnotes, page 249.

SPAN 230 Introduction to
Spanish Literature I 3 cr

OR

SPAN 231 Introduction to
Spanish Literature II

SPAN 240 Hispanic Culture I:
Spain 3 cr

OR

SPAN 241 Hispanic Culture II:
Spanish America

PLUS: ONE course *from each* of the
following *three* groups: 9 cr

1. *Golden Age*

SPAN 331 The Golden Age of
Spain

SPAN 435 Cervantes and His Age

SPAN 481 Spanish Seminar:
Quevedo, The Spanish
Mystics, The
Picaresque Novel, etc.

2. *Spanish American Literature to 1900*

SPAN 430 The Literature of
Spanish America to
Modernism

SPAN 432 The Novel in Spanish
America I

SPAN 436 The Modern Spanish
American Essay

3. *Spanish Drama*

SPAN 332 The Drama of the
Golden Age

SPAN 335 Modern Spanish
American Drama

SPAN 337 The Romantic Theatre
in Spain

THE FRENCH MAJOR

(For students with background in the
language, as determined by placement
examinations or evidence of intermediate
college proficiency.)

Pre-requisites for the French Major

A minimum of 580 in the CEEB placement
examination.

Advanced placement may be obtained by
CEEB scores of 600 or above.

Students with little or no French
background who wish to enter the French
Major should complete FR 110 (Basic
French I), FR 111 (Basic French II), FR 112

(Intermediate French I), and FR 113
(Intermediate French II).

Junior Year Abroad Program

Students interested in the Junior Year
Abroad Program should make an
appointment with their major advisor who
will give them the information they need
about eligibility, procedures to be followed,
types of programs approved by the
College, credit transfers, etc.

A. Major Courses³

(total 30 cr)

(Courses in French literature in translation
may not be applied to the French Major.)

FR 222 Advanced French
Conversation and
Composition I 3 cr

OR

FR 223 Advanced French
Conversation and
Composition II

FR 230 Masterpieces of
French Literature from
Rabelais to
Robbe-Grillet 3 cr

FR 240 Cultural Heritage of
France 3 cr

OR

FR 241 Contemporary French
Culture and Problems

FR 331 The Twentieth Century
French Novel 3 cr

FR 435 Seventeenth Century
French Tragedy and
Comedy 3 cr

OR

Other literature course at the
300 level or above.

**PLUS: an additional 15 credits in
French** from the following group: 15 cr

FR 320 Interpreting French
Literature

FR 333 The Modern French
Theatre

FR 334 French Literature to
1600

FR	336	Great French Poetry from Villon to Our Times
FR	337	French Literature of Canada, the Antilles and Africa
FR	350	Advanced French Phonetics and Grammar
FR	351	Tutorial Laboratory in French
FR	399	Selected Topics
FR	432	The Nineteenth Century French Novel
FR	438	Literature of the French Enlightenment
FR	480	Senior Seminar
FR	499	Independent Study

B. Certification Requirements

(total 40 cr)

Students who are interested in obtaining teacher certification should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following **ACADEMIC CONTENT REQUIREMENTS**:

FR	350	Advanced French Phonetics and Grammar	3 cr
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(ACADEMIC CONTENT TOTAL = 3 cr)

THE MINOR IN FRENCH

(total 18 cr)

(Courses in French literature in translation may not be applied to the French minor.)

FR	222	Advanced French Conversation and Composition I	3 cr
OR			
FR	223	Advanced French Conversation and Composition II	

FR	230	Masterpieces of French Literature from Rabelais to Robbe-Grillet	3 cr
----	-----	--	------

FR	240	Cultural Heritage of France	3 cr
OR			

FR	241	Contemporary French Culture and Problems
----	-----	--

PLUS: THREE electives from the following group. (**One** elective must be in *literature*.) 9 cr

FR	320	Interpreting French Literature
FR	331	The Twentieth Century French Novel
FR	333	The Modern French Theatre
FR	334	French Literature to 1600
FR	336	Great French Poetry from Villon to Our Times
FR	337	French Literature of Canada, the Antilles, and Africa
FR	350	Advanced French Phonetics and Grammar
FR	399	Selected Topics
FR	432	The Nineteenth Century French Novel
FR	435	Seventeenth Century French Tragedy and Comedy
FR	438	Literature of the French Enlightenment
FR	480	Senior Seminar
FR	499	Independent Study

HISTORY FACULTY

CHAIRPERSON — T. Ripmaster

PROFESSORS — J. Brandes, H.L. Ellis, D. Li, L. Stecchini

ASSOCIATE PROFESSORS — J. Drabble, M. Edelstein, C. Gruber, R. Miller

ASSISTANT PROFESSORS — W. Baumgartner, V. Caporale, I. Nack, T. Ripmaster, G. Satra

INSTRUCTOR — E. Goldstein

The History Faculty at William Paterson College agrees vigorously with the philosopher, Santayana, who once stated that "Those who cannot remember the past are condemned to repeat it."

The History Major may concentrate in American and European history. Courses in

Asian and Latin American history are also offered. The courses examine economic, social, intellectual, political and diplomatic history, and they aim at developing the techniques of historical investigation as well as increasing the students' critical abilities in interpreting the past.

History majors who intend to teach in the secondary school should follow the Secondary Education (K-12) Certification requirements listed on page 81 under The College of Human Services.

THE HISTORY MAJOR

A. Major Courses³ (total 30 cr)

HIST 260 Historiography 3 cr

PLUS: At least 5 History courses at the 300 level 15 cr

PLUS: At least 2 History courses at the 400 level 6 cr

PLUS: 2 additional History courses at the 200 level or above 6 cr

(In selecting courses in History, the student must have at least two courses in *European history*, two courses in *American history*, and one course in either *Latin-American or Asian history*.)

B. Certification Requirements (total 40 cr)

Students who are interested in obtaining teacher **certification in comprehensive Social Studies** should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following **ACADEMIC CONTENT REQUIREMENTS**:

American History 6 cr
European History 3 cr
Economics¹¹ 3 cr
Political Science⁶ 3 cr
Sociology/Anthropology⁶ 3 cr
Geography⁶ 3 cr
Black Studies¹² 3 cr

(ACADEMIC CONTENT TOTAL = 24 cr)

THE MINOR IN HISTORY

(total 18 cr)

18 credits of electives by advisement, with no more than 12 credits in either American or European history.

See footnotes, page 249.

PHILOSOPHY FACULTY

CHAIRPERSON — A. Juffras

PROFESSORS — M. Hailparn, A. Juffras, W. McKeefery

ASSOCIATE PROFESSORS — S. Choi, M.L. Friquignon

ASSISTANT PROFESSORS — J. Etzweiler, R. Myatt, P. Struhl

INSTRUCTOR — K. Siegel

Very few people enter college as philosophy majors. Most students have heard the word occasionally but are not sure what it means. Nevertheless, after having had a course in philosophy, many students fall in love with the subject.

The meaning of philosophy has not changed much since it originated in Greece years ago. Philosophy means "love of wisdom." And people who love knowledge in all its varieties, with a keen interest in the arts, the physical sciences, the social sciences, and mathematics, who don't wish to yield their interest in any of these by concentrating in one major, find that philosophy alone allows and even requires the student to maintain his interest in the whole spectrum of knowledge.

Philosophy is very liberating because of its critical scrutiny of attitudes and beliefs normally taken for granted. An old George Gershwin tune, "It Ain't Necessarily So," is appropriate background music for the pursuit of philosophy.

Philosophy does not specifically prepare anyone for a professional career. However, the federal government, as well as many large employers, regard a college graduate (whether he is a philosophy, English, or history major) as an excellent and promising person who can be counted to grow in competence and assume responsible positions in business and government.

THE PHILOSOPHY MAJOR

(total 30 cr)

A. Major Courses³

PHIL 110 Introduction to Philosophy 3 cr
PHIL 200 Logic 3 cr
PHIL 320 Ethics 3 cr

PLUS: ONE course from the following group dealing with *Major Fields of Philosophy* 3 cr

- PHIL 312 Metaphysics
 - PHIL 317 Theory of Knowledge
 - PHIL 321 Philosophy of Art
-

PLUS: ONE course from the following group dealing with a *seminal thinker* 3 cr

- PHIL 326 Plato
 - PHIL 327 Aristotle
 - PHIL 330 David Hume and the Sceptic Tradition
 - PHIL 404 Classics in Philosophy, Seminar in . . .
 - PHIL 480 Senior Seminar
-

PLUS: TWO additional courses in the *history of philosophy* from among the following: 6 cr

- PHIL 201 The History of Ancient Philosophy
 - PHIL 202 The History of Modern Philosophy from Descartes to Kant
 - PHIL 331 19th-Century Philosophy: Post-Kantian German Idealism
-

PLUS: NINE credits of philosophy electives 9 cr

NOTE: The following courses are recommended for Philosophy majors: sufficient courses in both French and German to give a student a competent reading ability in each language. These and other recommended courses will make the student (in any field) more attractive to the graduate school to which he or she applies.

We recommend a concentration in one of the physical sciences; also courses in Mathematical Logic.

THE MINOR IN PHILOSOPHY

(total 18 cr)

18 credits of Philosophy electives, with no more than 6 credits on the 100 level.

See footnotes, page 249.

DIVISION OF MATHEMATICS AND NATURAL SCIENCES

DIVISIONAL ASSIGNMENTS

PROFESSORS — C. Lee, E. Hutter

BIOLOGICAL SCIENCES FACULTY

CHAIRPERSON — J. Voos

PROFESSORS — R. Callahan, R. Capella, L. Emrich, D. Levine, J. Rosengren, A. Shinn, J. Voos

ASSOCIATE PROFESSORS — N. Grant, J. Green, C. Hu, A. Isaacson, O. Newton, M. Sebetich, D. Weisbrot, J. Werth

ASSISTANT PROFESSORS — M. Hahn, S. Hanks, J. Hughes, R. Lovell, E. Wallace, J. Walters

The department of biological sciences offers a major and a minor in biology, as well as providing a wide scope of biology electives and service courses for students from other disciplines.

THE BIOLOGY MAJOR

The Biology Faculty offers a major leading to the Bachelor of Arts Degree in Biology.

To meet the needs of the modern biologist, the department has established a curriculum that provides broad basic training in the fundamentals of Biology as well as a concentration in one of the three levels of biological organization.

Directed Electives in Mathematics, Chemistry, and Physics are essential in preparing students in the Biological Sciences for advanced training or employment after graduation.

A graduate in Biology may pursue a career in governmental or industrial research, production or quality control, particularly in the expanding fields of environmental studies (pollution abatement; agricultural or natural resource management), medical,¹³ paramedical professions, or teaching.

Certification is available for those students interested in a career in teaching science on the secondary level. Interested students should follow the Secondary Education

(K-12) Certification Requirements listed on page 81 under The College of Human Services.

A. Major Courses³

(total 32-37 cr)

BIO	163	General Biology I	4 cr
BIO	164	General Biology II	4 cr

PLUS:

BIO	480	Biology Seminar	1 cr
OR			
BIO	499	Independent Study	

PLUS: ONE course from each of the following *four tracks*: 14-16 cr

(See course descriptions for credits of individual courses listed below.)

1. *Cell and Molecular Biology*

BIO	305	Cell Physiology	
BIO	320	General Bacteriology	
BIO	406	Protozoology	
BIO	412	Virology	
BIO	413	Environmental Microbiology	
BIO	425	Molecular Genetics	
BIO	428	Endocrinology	
CHEM	327	Biochemistry I	

2. *Organismal – Plant*

BIO	261	General Botany	
BIO	303	Plant Anatomy	
BIO	304	Plant Physiology	
BIO	335	Field Botany	
BIO	352	Economic Botany	
BIO	414	Mycology	
BIO	415	Systematics of Lower Plants	
BIO	418	Systematics of Higher Plants	

3. *Organismal – Animal*

BIO	219	Lower Invertebrate Zoology	
BIO	220	Higher Invertebrate Zoology	
BIO	301	Animal Physiology	
BIO	350	Animal Behavior	
BIO	404	Parasitology	
BIO	405	Comparative Vertebrate Anatomy	
BIO	407	Insect Physiology	
BIO	421	Embryology	
BIO	422	Human Physiology	
BIO	435	Vertebrate Zoology	

4. *Populational Biology*

BIO	302	Basic Genetics	
BIO	306	General Genetics	
BIO	323	Conservation	
BIO	351	Field Animal Behavior	
BIO	402	Limnology	
BIO	403	General Ecology	
BIO	444	Evolution	
BIO	445	Evolution Lab	
BIO	475	Population Genetics	
BIPY	475	Behavior Genetics	

PLUS: THREE additional courses in **ONE** of the above tracks 9-12 cr

NOTE: In addition to the courses listed in the above tracks, other biology courses may be substituted in the tracks with permission from the department chairperson. Detailed description of all courses offered may be found on pages 115 through 120.

B. Directed Electives

(total 30-32 cr)

CHEM	160	General Chemistry I	4 cr
CHEM	161	General Chemistry II	4 cr
CHEM	308	Organic Chemistry I	4 cr
CHEM*	309	Organic Chemistry II	4 cr

PLUS:

{	PHYS	260	General Physics I	4 cr
	AND			
{	PHYS	261	General Physics II	4 cr
	OR			
{	PHYS	255	College Physics I	
	AND			
{	PHYS	256	College Physics II	

PLUS: 6-8 credits in *Mathematics* by advisement 6-8 cr

C. Certification Requirements

(total 44 cr)

Students who are interested in obtaining teacher **certification in comprehensive Science** should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

THE MINOR IN BIOLOGY

(total 18-20 cr)

The minor in Biology includes General Biology I and II (8 credits) and 3 additional courses in Biology, at least one of which shall include a laboratory. These courses

See footnotes, page 249.

shall be chosen with the help of an advisor to fit with the student's choice of major.

Students choosing a minor in Biology are strongly urged to include in their background, a basic course in statistics and one year of General Chemistry.

CHEMISTRY FACULTY

CHAIRPERSON — L. Rivela

PROFESSORS — S.C. Hyman,
A. Merijanian, H. Sakal

ASSOCIATE PROFESSORS — C. Flanders,
G. Gerardi, R. Hall, S. Quo, L. Rivela,
A. Speert

ASSISTANT PROFESSOR — P. Delaney

The Chemistry Faculty offers a major program leading to the Bachelor of Arts degree, as well as various electives and special sequences for other science and non-science majors. The Chemistry major may prepare for graduate or professional schools, or for positions in industry, in research institutes, in teaching or in chemical sales or administration.

THE CHEMISTRY MAJOR

A. Major Courses³

(total 36 cr)

CHEM	160	General Chemistry I	4 cr
CHEM	161	General Chemistry II	4 cr
CHEM	201	Analytical Chemistry	5 cr
CHEM	308	Organic Chemistry I	4 cr
CHEM	309	Organic Chemistry II	5 cr
CHEM	311	Physical Chemistry I	4 cr
CHEM	312	Physical Chemistry II	5 cr
CHEM	320	Inorganic Chemistry	4 cr
CHEM	480	Seminar in Chemistry	1 cr

B. Directed Electives

(total 24 cr)

BIO	163	General Biology I	4 cr
BIO	164	General Biology II	4 cr
MATH	160	Calculus I	4 cr
MATH	161	Calculus II	4 cr
PHYS	260	General Physics I	4 cr
PHYS	261	General Physics II	4 cr

C. Certification Requirements

(total 44 cr)

Students who are interested in obtaining **certification in Comprehensive Science** should follow the *Secondary Education*

(K-12) Certification Requirements (letter D) as explained on page 82.

THE MINOR IN CHEMISTRY

(total 18 cr)

CHEM	160	General Chemistry I	4 cr
CHEM	161	General Chemistry II	4 cr

PLUS: an additional **10 credits** in

Chemistry by advisement 10 cr

NOTE: It is strongly recommended that the minor also elect the following: MATH 160 (Calculus I), MATH 161 (Calculus II), PHYS 260 (General Physics I), and PHYS 261 (General Physics II).

MATHEMATICS FACULTY

CHAIRPERSON — M. Kaplan

PROFESSORS — R. Stevenson, M. Tong,
R. Walter

ASSOCIATE PROFESSORS — L. Cheo,
R. Cienia, G. Dixon, E. Goldstein,
M. Kaplan, B. Levine, S. Ramanujam,
F. Servedio

ASSISTANT PROFESSORS —

N. Assimakopoulos, H. Dehlinger,
B. Eastman, S. Hyman, R. Kroeckel,
E. Phadia, T. Yip

INSTRUCTORS — V. Alexander, J. Coomes

Recent developments within mathematics and in the breadth of its applications make the study of mathematics at once stimulating to the student and vital to his community. The Department of Mathematics offers courses in the principal branches of mathematics and in computer science to prepare majors for professional careers and to service students in other departments.

The mathematics program, leading to a Bachelor of Arts Degree, prepares the student in the basic concepts of mathematics and, at the same time, provides him with the opportunity to elect courses consonant with his professional objectives.

Careers in secondary school teaching are available to qualified graduates who supplement their major with the necessary certification requirements. Interested students should follow the Secondary

Education (K-12) Certification
Requirements listed on page 81 under The College of Human Services.

Students may also seek a career as an applied mathematician in industry or government or prepare for further study in pure or applied mathematics.

Generally a mathematics major will begin his major in the freshman year by taking MATH 160 (Calculus I), and MATH 161 (Calculus II). Four years of high school preparatory mathematics, including trigonometry through inverse functions, is expected for Calculus I. Those not meeting this requirement but who have three years of high school mathematics, including a second year of algebra, should take MATH 156 (Pre-calculus). Students who have taken calculus in high school may apply for advanced placement with credit. Mathematics majors are encouraged to minor in areas in which mathematics can be extensively applied, such as Computer Science, Biology, Chemistry, Physics, Economics, Business Administration, and Psychology.

Mathematics Majors who intend to pursue a graduate program in mathematics are strongly advised to satisfy the intermediate reading level requirement in one of the following foreign languages: German, French or Russian.

Mathematics Majors, as well as all students at the college, will have access to a Computer Center for modern computation and research in applied sciences. The center is equipped with modern digital systems and is used for the solution of applied science problems arising in undergraduate and graduate courses and in faculty research.

THE MATHEMATICS MAJOR

A. Major Courses³

(total 33 cr)

MATH 160	Calculus I	4 cr
MATH 161	Calculus II	4 cr
MATH 200	Mathematical Logic and Set Theory	3 cr
MATH 201	Calculus III	4 cr
MATH 202	Linear Algebra	3 cr
MATH 301	Modern Algebra	3 cr
MATH 302	Advanced Calculus I	3 cr

PLUS: An additional **NINE** credits from among the following: 9 cr

MATH 303	Advanced Calculus II
MATH 322	Differential Equations
MATH 323	Foundations of Geometry
MATH 324	Probability
MATH 325	Topics from Applied Mathematics
MATH 380	Mathematical Models and Applications
MATH 399	Selected Topics
MATH 401	Applied Algebra
MATH 421	Mathematical Statistics
MATH 422	Complex Analysis
MATH 423	Real Analysis
MATH 424	Introduction to Numerical Analysis
MATH 425	Introduction to Topology
MATH 499	Independent Study

B. Certification Requirements

(total 40 cr)

Students who are interested in obtaining teacher **certification in Mathematics** should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following **ACADEMIC CONTENT REQUIREMENTS:**

MATH 323	Foundations of Geometry	3 cr
MATH 324	Probability	3 cr

(ACADEMIC CONTENT TOTAL = 6 cr)

THE MINOR IN MATHEMATICS

(total 20-21 cr)

MATH 160	Calculus I	4 cr
MATH 161	Calculus II	4 cr
MATH 202	Linear Algebra	3 cr

PLUS: THREE additional courses from among those listed above under the **MATH MAJOR**. At least **two** of the courses must be **at the 300 level or higher** 9-10 cr

THE MINOR IN MATHEMATICS

(for Students of Business, Economics, Biology, Psychology)

(total 18 cr)

MATH 120	Finite Math	3 cr
OR		
MATH 202	Linear Algebra	

PLUS:

MATH	130	Elementary Statistics I	3 cr
MATH	150	Applied Calculus I	3 cr
(may be replaced by both MATH 160 and MATH 161)			

PLUS: NINE credits of *Math* electives 9 cr

NOTE: Suggested Math electives are:

MATH 231 (Applied Statistics),
MATH 250 (Applied Calculus II),
MATH 318 (Mathematics of
Personal Finance), and
MATH 380 (Mathematical Models
and Applications)

THE MINOR IN COMPUTER SCIENCE

(for Mathematics Majors with traditional program)

(total 18 cr)

CS	140	Computer Science I	3 cr
CS	240	Computer Science II	3 cr
CS	280	Computer and Assembler Language	3 cr
CS	341	Computer Design	3 cr
CS	360	Computer Calculus	3 cr

PLUS: THREE credits of electives 3 cr

NOTE: Suggested electives for this minor are CS 341 (Computer Design), CS 342 (Programming Language and Data Structures), CS 361 (Combinatorial Computing), CS 362 (Elements of Computer Simulation)

THE MINOR IN COMPUTER SCIENCE

(for Biology, Chemistry, Physics, and Earth Science)

(total 18 cr)

CS	140	Computer Science I	3 cr
CS	240	Computer Science II	3 cr
CS	280	Computer and Assembler Language	3 cr
CS	362	Elements of Computer Simulation	3 cr

PLUS: SIX credits of electives 6 cr

NOTE: Suggested electives for this minor are: CS 341 (Computer Design), CS 342 (Programming Language and Data Structure), CS 360 (Computer Calculus) CS 361 (Combinatorial Computing)

THE MINOR IN COMPUTER SCIENCE

(for Business, Economics, and Accounting Majors)

(total 18 cr)

CS	140	Computer Science I	3 cr
CS	240	Computer Science II	3 cr
CS	280	Computer and Assembler Language	3 cr
CS	362	Elements of Computer Simulation	3 cr

PLUS: SIX credits of electives 6 cr

NOTE: Suggested electives for this minor are CS 152 (Cobol and Data Processing I), CS 252 (Cobol II), CS 341 (Computer Design), CS 342 (Programming Language and Data Structures), CS 360 (Computer Calculus), CS 361 (Combinatorial Computing)

THE MINOR IN COMPUTER SCIENCE

(for all other majors)

(total 18 cr)

CS	140	Computer Science I	3 cr
CS	240	Computer Science II	3 cr
CS	280	Computer and Assembler Language	3 cr

PLUS: NINE credits of *Computer Science* Electives 9 cr

PHYSICS-EARTH SCIENCE FACULTY

CHAIRPERSON - J. Edwards

PROFESSOR — E. Woodward

ASSOCIATE PROFESSORS — J. Edwards, S. La

ASSISTANT PROFESSORS — J. Bufano, T. Darkhosh, G. Mandeville, R. Smith, I. Youssefnia

The Physics-Earth Science Faculty offers a group of courses and concentrations designed to prepare students for science-oriented careers in industry, research, teaching, environmental or governmental work, or entry into graduate school.

The Faculty offers concentrations in Physics or Earth Science which may be selected as major tracks in the program leading to the degree of B.A. in Environmental Studies (See Track 4 —

Physics on page 101 and Track 3 — Earth Science on page 100. In addition, minors in both Physics and Earth Science are available.

The student may also elect to follow the course sequence for the Liberal Arts Major in the Math and Natural Science Division with a concentration in either physics or earth science. Students interested in this concentration should contact the Associate Dean of Mathematics and Natural Sciences.

In addition to liberal studies courses and electives, the Faculty also provides service courses which are required by other curricula.

THE MINOR IN PHYSICS

(total 27-28 cr)

PHYS	260	General Physics I	4 cr
PHYS	261	General Physics II	4 cr
PHYS	300	Mechanics	4 cr
PHYS	302	Electricity and Magnetism	4 cr

PLUS: An additional course in *Physics* by advisement 3-4 cr

PLUS:

MATH	160	Calculus I	4 cr
MATH	161	Calculus II	4 cr

NOTE: Additional courses in *Mathematics* are recommended.

THE MINOR IN EARTH SCIENCE

(total 18 cr)

Students wishing to obtain a minor in Earth Science will complete a minimum of 18 credits by advisement. They may elect courses under Earth Science and Astronomy in the section devoted to course descriptions.

DIVISION OF SOCIAL AND BEHAVIORAL SCIENCES

GEOGRAPHY FACULTY

CHAIRPERSON — F. Alliston

PROFESSORS — F. Alliston, P. Vouras

ASSOCIATE PROFESSORS —
J. Fitzsimmons, J. Hill, I. Kedar

ASSISTANT PROFESSOR — J. Gerlach

The Geography Faculty offers a major program leading to the degree of Bachelor

See footnotes, page 249.

of Arts. The functions and purposes of the Faculty are fourfold: 1) to widen the student's broadest perspectives about himself, 2) to enrich the general education and liberal studies program, 3) to provide geography courses for students who major and minor in geography, and 4) to establish working cooperative relations with other faculties in order to provide maximum educational benefits to the student. The objectives of the Geography Faculty are to introduce the student to the meaning of a relationship between the cultural and physical environments, to analyze the impact of the physical environment upon man and his work, and to study the changes that man's culture has fashioned upon the surface of the earth.

THE GEOGRAPHY MAJOR

A. Major Courses³ (total 30 cr)

Choose **TWO** of the following courses: 6 cr

GEO	110	Cultural Geography
GEO	120	Man's Physical World
GEO	130	Human Ecology

PLUS: THREE of the following courses: 9 cr

GEO	230	Population and Settlement Geography
GEO	233	World Resources and Industries
GEO	300	Geopolitics
GEO	310	Trade and Transportation Geography
GEO	350	Geo-economics of Energy and Man
GEO	360	Geo-economics of Food and Hunger
GEO	400	Urban Geography

PLUS: 15 credits of courses on the **200 level or higher**, selected from *Area Studies*, *Regional courses*, or *Specialized Topical Studies* (in any combination to suit the students' needs) 15 cr

B. Certification Requirements (total 40 cr)

Students who are interested in obtaining teacher certification in **comprehensive Social Studies** should follow the *Secondary*

Education (K-12) Certification Requirements (letter D) as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following **ACADEMIC CONTENT REQUIREMENTS**:

American History	6 cr
European History	3 cr
Economics ¹¹	3 cr
Political Science ⁶	3 cr
Sociology/Anthropology ⁶	3 cr
Black Studies ¹²	3 cr

(**ACADEMIC CONTENT TOTAL** =21 cr)

THE MINOR IN GEOGRAPHY

(total 18 cr)

GEO	120	Man's Physical World	3 cr
GEO	130	Human Ecology	3 cr

PLUS: 12 additional credits at the 200 level or higher 12 cr

POLITICAL SCIENCE FACULTY

CHAIRPERSON — G. Gregoriou

PROFESSOR — L. Rosenberg

ASSOCIATE PROFESSORS — M. Chadda,
D. Fox, S. Kyriakedes, W. Small

ASSISTANT PROFESSORS —

G. Gregoriou, R. Immerman, S. Shalom,
C. Sheffield, M. Weinstein, L. Wolf

The Faculty of Political Science offers a major leading to the degree of Bachelor of Arts. The purpose of instruction in Political Science is to offer all students the foundation for a lasting interest and participation in public affairs, in addition to encouraging the development of independent and informed judgments toward contemporary issues of government and politics. The curriculum is designed to give students an understanding of the political insights and a methodological approach to understanding the relation of the individual to government and of governments to one another.

The Political Science major with an appropriate graduate education will find career opportunities available in a variety of fields, depending upon his/her interests and capabilities. A major may find that a solid background in theoretical and

practical training will qualify him/her for career opportunities in research, public administration/urban affairs (at federal, state, and local levels), foreign service, law, journalism, ecology, and political or economic programs (on both the domestic and international level).

Political Science majors who intend to teach social studies in the secondary schools should follow the Secondary Education (K-12) Certification requirements listed on page 81 under The College of Human Services.

THE POLITICAL SCIENCE MAJOR

A. Major Courses³

(total 30 cr)

POL	120	American Government and Politics	3 cr
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POL	201	Early Modern Political Theory	3 cr
OR			
		Any other Political Theory Course	

PLUS:

POL	230	Comparative Politics: Development and Modernization	3 cr
POL	240	International Relations	3 cr
POL	480	Seminar in Political Science	3 cr

PLUS: 15 credits of additional *Political Science* electives 15 cr

NOTE: The required courses are prerequisites for advanced courses in each of the relevant areas. After consultation with an advisor, majors in Political Science are encouraged to select courses in such related areas as Economics and Business, Sociology, Black Studies, Psychology, and History. A basic course in statistics and in computer programming is strongly recommended for those who wish to pursue graduate work or enter the field of Public Administration.

B. Certification Requirements

(total 40 cr)

Students who are interested in obtaining

teacher **certification in comprehensive Social Studies** should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following **ACADEMIC CONTENT REQUIREMENTS**:

American History	6 cr
European History	3 cr
Economics ¹¹	3 cr
Sociology/Anthropology ⁶	3 cr
Geography ⁶	3 cr
Black Studies ¹²	3 cr

(ACADEMIC CONTENT TOTAL=21 cr)

THE MINOR IN POLITICAL SCIENCE

(total 18 cr)

POL	110	Introduction to Politics ⁶	3 cr
POL	120	American Government and Politics ⁶	3 cr

PLUS: 12 additional credits in *Political Science* courses 12 cr

PSYCHOLOGY FACULTY

CHAIRPERSON — E. Hudson

PROFESSORS — J. Houston, E. Hudson,
R. Nemoff, D. Sugarman, F. Tomedy,
R. White

ASSOCIATE PROFESSORS — J. Green,
T. Haver, R. Krate, D. Skillin,
D. Vardiman

ASSISTANT PROFESSORS — S. Boone,
D. Grey, D. Kleese, G. Leventhal,
P. Pakizegi, A. Schreiber,
T. Silverman-Dresner, B. Silverstein,
R. Silvestri

The Psychology Faculty offers a major leading to the degree of Bachelor of Arts in Psychology and offers basic service courses for other curricula in the college. The psychology major and the professional psychologist with an appropriate graduate education will find career opportunities available in a variety of fields, depending upon his interests and capabilities in relation to current social needs. Major occupational roles await the qualified clinical, developmental, social, or experimental psychologist. He may

function in an academic, industrial, or governmental setting. Some psychologists function as independent private consultants to individuals or groups.

THE PSYCHOLOGY MAJOR

Major Courses³

(total 32 cr)

PSY	110	General Psychology	3 cr
PSY	202	Experimental Psychology I: Applied Statistics	4 cr
PSY	203	Experimental Psychology II: Laboratory	4 cr
PSY	230	History of Psychology	3 cr
PSY	480	Seminar in Psychology	3 cr

PLUS: an additional 15 credits in *Psychology* 15 cr

NOTE: Psychology majors are urged to elect MATH 130 (Elementary Statistics I) as important background for PSY 202 (Experimental Psychology I: Applied Statistics).

Psychology majors are urged to complete PSY 202 and PSY 203 as soon as possible. As of Fall 1978, registration will be limited to Sophomores and Freshmen. Exceptions will normally be made only for transfer students or for students who change their major to psychology.

Psychology Majors who wish to pursue advanced work in graduate school are reminded that a reading knowledge of at least one foreign language is frequently required: French, German, or Russian are generally recommended. The Psychology major is advised to pursue such language study at the undergraduate level to achieve at least intermediate level proficiency.

THE MINOR IN PSYCHOLOGY

(total 18 cr)

PSY	110	General Psychology	3 cr
PSY	210	Developmental Psychology	3 cr
PSY	230	History of Psychology	3 cr
PSY	430	Social Psychology	3 cr

See footnotes, page 249.

PLUS: an additional **SIX CREDITS** of
Psychology courses 6 cr

**SOCIOLOGY/ANTHROPOLOGY
FACULTY**

CHAIRPERSON — J. Stimson

PROFESSORS — P. Chao, M. Weil

ASSOCIATE PROFESSORS — S. Dix,
V. Parrillo, A. Rosensteil, J. Stimson

ASSISTANT PROFESSORS — A. Ansari,
R. Mortorella, J. Pollak, S.M. Rhim

INSTRUCTORS — C. Magarelli, F. Pritchett

The Sociology/Anthropology Faculty offers a major program leading to the degree of Bachelor of Arts. The major program is designed to acquaint students with basic concepts necessary to understand human relationships in our modern pluralistic society, to help students prepare for a variety of positions needed to be filled in our society, especially the urban communities, and to prepare students for graduate work in sociology and social work. In addition, the faculty offers a variety of courses to reinforce other curricula in the college.

**THE SOCIOLOGY/ANTHROPOLOGY
MAJOR**

A. Major Courses³ (total 30 cr)

SOC 110 Principles of Sociology 3 cr
SOC 130 Social Anthropology 3 cr

PLUS:

SOC 402 Modern Sociological Theory 3 cr
OR
SOC 423 History of Social Theory

PLUS: An additional **21 CREDITS** in *Sociology electives*. It is strongly suggested that students consult their advisors before selecting among elective courses. 21 cr

B. Certification Requirements (total 40 cr)

Students who are interested in obtaining

See footnotes, page 249.

teacher **certification in comprehensive Social Studies** should follow the *Secondary Education (K-12) Certification Requirements (letter D)* as explained on page 82.

In **ADDITION** to these requirements, students seeking certification must complete the following **ACADEMIC CONTENT REQUIREMENTS:**

American History 6 cr
European History 3 cr
Economics¹¹ 3 cr
Political Science⁶ 3 cr
Geography⁶ 3 cr
Black Studies¹² 3 cr

(ACADEMIC CONTENT TOTAL = 21 cr)

THE MINOR IN SOCIOLOGY (total 18 cr)

SOC 110 Principles of Sociology 3 cr
SOC 130 Social Anthropology 3 cr

SOC 402 Modern Sociological Theory 3 cr
OR
SOC 423 History of Social Theory

PLUS: an additional **NINE CREDITS** in *Sociology* courses 9 cr

NOTE: Students should consult their advisors when selecting the Sociology electives.

**THE COLLEGE OF
HUMAN SERVICES**

Mark Karp, Ph.D., Acting Dean

DIVISION OF ADMINISTRATIVE STUDIES —
Ifeanyi Achebe, J.D., Acting Associate Dean

**DIVISION OF FIELD AND SIMULATED
EXPERIENCES — Vacant**

DIVISION OF SPECIAL SERVICES — Vacant

DIVISION OF TEACHER EDUCATION — Vacant

DIVISION OF URBAN STUDIES — William Willis, Ed.D., Acting Associate Dean

The College of Human Services consists of

all components of teacher education as well as urban studies (including Black Studies) and administrative studies (including Public Safety, Business, Economics, and Accounting¹).

The college cooperates with the various colleges of William Paterson College in offering multiple inter-disciplinary programs designed mainly to offer students varied and diversified career opportunities.

The college makes every effort to relate to the contemporary world in terms of both student needs and program innovations. Conceiving of education as an ongoing, constantly renewing experience, the Faculty of the College seeks to provide current innovative curricula in all their programs and services.

EDUCATION PROGRAM COMMITMENTS

General Responsibility

The College of Human Services is responsible for all programs in teacher education, and by arrangement with the New Jersey State Department of Education, approves its graduates for certification as teachers. These programs are generally acceptable in other states which recognize the standards of the National Commission for Accreditation of Teacher Education or the National Association of State Directors of Teacher Education and Certification.

Requirements for Assignment to Senior Field Experiences (Student Teaching)

A student must meet the following requirements for student teaching (now called Culminating Field Experience):

1. Approval of his major department, and, in the case of Arts and Sciences and Fine and Performing Arts, admission to the Secondary Education Department.
2. A cumulative grade point average of 2.0 at the close of the semester immediately preceding student teaching, and a cumulative grade point average of 2.0 in the major field, including Directed Electives.
3. Prior completion of the methods, curriculum, and practicum requirements for the particular major.
4. A minimum of 84 semester hours of

course credit at the end of the semester preceding student teaching.

The Following Rules Apply in the Selection of School, Grade, and Specialty for Student Teaching:

1. No student will attempt to effect his own placement.
2. An effort will be made to locate students within reasonable commuting distance, but assignments are based primarily on availability of suitable cooperating teachers and school districts.
3. A student will generally not be placed in the community in which he lives.
4. Placement will be in the major field in a public school district.
5. Students planning to do student teaching in the senior year must make application to the Office of Field Laboratory Experiences by February 1 of the junior year.
6. The student teaching fee of \$60 must be paid before processing of the application can begin.

The student is supervised and evaluated by a college supervisor and a cooperating teacher in the school district. A grade of P (pass) or F (fail) is assigned by the college supervisor after consultation with the cooperating teacher.

Undergraduate Evening Students

Regularly admitted evening students who are interested in pursuing a teacher education program must indicate their choice early and apply for admission to the major program. Normally, their last semester must be spent during the hours when schools are in session in the practicum appropriate to the major and in student teaching. Individualized alternatives for practicum may be possible if approved and arranged by the Office of Field Laboratory Experiences.

Teacher education sequences are available to undergraduate evening students in the following fields: Early Childhood, Elementary Education, Special Education, Urban Education, English, History, Biology, Mathematics, Communication, Speech Pathology, Art, Sociology, Political Science, and the Associate Media Specialist Program (formerly the Teacher-Librarian Program).

See footnotes, page 249.

DIVISION OF ADMINISTRATIVE STUDIES

ACCOUNTING — BUSINESS — ECONOMICS FACULTY¹

CHAIRPERSON — C. Liddicoat

PROFESSOR — M. Laurence

ASSOCIATE PROFESSORS — R. Davis,
G. Dorai, C. Leung, O. Nabe, P. Nayak

ASSISTANT PROFESSORS — I. Achebe,
R. Bing, A. Eapen, G. Kahn, H. Leib,
P. Levine, C. Liddicoat, C. Masheb,
L. Presby, F. Zanfino

INSTRUCTORS — B. Iatauro, S. Mahlahla,
R. Pirog

The Faculty of Accounting, Business and Economics offers major programs leading to a Bachelor of Arts degree in Accounting, Business Administration, and Economics. All these majors are designed to provide students with the analytical and practical skills necessary to pursue a career in today's highly competitive world. The Accounting major offers all the required courses necessary to qualify for the Certified Public Accountant Examination.

Furthermore, all these majors provide the necessary background for graduate work which opens up excellent opportunities in business, industry, government and academic institutions.

THE ACCOUNTING MAJOR

A. Major Courses³

(total 24 cr)

ACCT	211	Principles of Accounting I	3 cr
ACCT	212	Principles of Accounting II	3 cr
ACCT	311	Intermediate Accounting I	3 cr
ACCT	312	Intermediate Accounting II	3 cr
ACCT	340	Cost Accounting I	3 cr
ACCT	370	Auditing	3 cr
ACCT	410	Taxation I	3 cr
ACCT	420	Advanced Accounting	3 cr

B. Directed Electives

(total 21 cr)

ECON	201	Macroeconomic Principles	3 cr
ECON	202	Microeconomic Principles	3 cr
ECON	310	Money and Banking	3 cr
BUS	251	Business Law I	3 cr
BUS	252	Business Law II	3 cr
BUS	320	Corporation Finance	3 cr
MATH	152	Cobol and Data Processing I	3 cr

C. Required Additional Electives

(total 15 cr)

To satisfy this requirement, the student may **choose from any** *Accounting, Business, Economics, or Computer and statistics courses* other than Major Courses or Directed Electives.

NOTE: It is highly recommended that students take Cost Accounting II, Taxation II, and the CPA Review Course as required additional electives.

THE MINOR IN ACCOUNTING

(total 18 cr)

ACCT	211	Principles of Accounting I	3 cr
ACCT	212	Principles of Accounting II	3 cr
ACCT	311	Intermediate Accounting I	3 cr
ACCT	312	Intermediate Accounting II	3 cr
ACCT	340	Cost Accounting I	3 cr
ACCT	370	Auditing	3 cr

THE BUSINESS ADMINISTRATION MAJOR

A. Major Courses³

(total 36 cr)

BUS	201	Introduction to Management	3 cr
BUS	251	Business Law I	3 cr
BUS	252	Business Law II	3 cr
BUS	310	Marketing	3 cr
BUS	320	Corporation Finance	3 cr

PLUS: 21 credits of additional major elective courses selected from among the *BUSINESS Courses* with the catalog numbers **above BUS 300.**

21 cr

B. Directed Electives

(total 21 cr)

ACCT	211	Principles of Accounting I	3 cr
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¹See footnotes, page 249.

ACCT	212	Principles of Accounting II	3 cr
ECON	201	Macroeconomic Principles	3 cr
ECON	202	Microeconomic Principles	3 cr
ECON	210	Economic Statistics I	3 cr
ECON	211	Economic Statistics II	3 cr
MATH	152	Cobol and Data Processing I	3 cr

NOTE: All students in this major are strongly advised to take Mathematics courses or courses in quantitative methods and analysis. See your advisor.

THE MINOR IN BUSINESS ADMINISTRATION

(total 18 cr)

ECON	201	Macroeconomic Principles	3 cr
ECON	202	Microeconomic Principles	3 cr
BUS	201	Introduction to Management	3 cr
BUS	251	Business Law I	3 cr
BUS	310	Marketing	3 cr
ACCT	211	Principles of Accounting I	3 cr

THE ECONOMICS MAJOR

A. Major Courses³

(total 30 cr)

ECON	201	Macroeconomic Principles	3 cr
ECON	202	Microeconomic Principles	3 cr
ECON	210	Economic Statistics I	3 cr
ECON	211	Economic Statistics II	3 cr
ECON	301	Macroeconomic Theory	3 cr
ECON	302	Microeconomic Theory	3 cr

PLUS: 12 credits of additional major elective courses in *ECONOMICS* with catalog numbers **above ECON 302.** 12 cr

B. Directed Electives

(total 3 cr)

MATH	150	Applied Calculus I	3 cr
OR			
MATH	155	Intermediate Algebra for College Students	

NOTE: All students in this major are strongly advised to take

mathematics courses or courses in quantitative methods and analysis. See your advisor.

THE MINOR IN ECONOMICS

(total 18 cr)

ECON	201	Macroeconomic Principles	3 cr
ECON	202	Microeconomic Principles	3 cr

PLUS: 12 credits of additional courses in *ECONOMICS* with catalog numbers **above ECON 200.** 12 cr

NOTE: This minor is strongly recommended for all Business Administration majors, who after completing the requirements for a Business Administration major would need only 6 additional credit hours in Economics by advisement. This minor is also strongly recommended for Mathematics majors since Economics is a field in which mathematics can be extensively applied. Furthermore, a Mathematics major with a minor in Economics will be very well prepared to do graduate work in Economics.

PUBLIC SAFETY ADMINISTRATION FACULTY

CHAIRPERSON — G. Sheehan

ASSOCIATE PROFESSOR — W. Cusack

ASSISTANT PROFESSORS — B. Asaro, J. Berman, G. Sheehan, J. Victor

INSTRUCTOR — P. Kearney

The Public Safety Administration Program is part of the Division of Administrative Studies which, in turn, is contained within the College of Human Services. The four-year curriculum, leading to a Bachelor of Science Degree in Public Safety Administration, is designed expressly for students who are presently pursuing or are planning careers in the areas of criminal justice services. The major provides a behavioral science approach necessary in understanding the causes, prevention, and control of crime and delinquency. Students particularly interested in fire science or fire

safety also find the program valuable in view of the course offerings in this area.

THE PUBLIC SAFETY ADMINISTRATION MAJOR

A. Major Courses³

(total 30 cr)

PUBS	160	Principles of Public Safety	3 cr
PUBS	161	Public Safety Administration and Organization	3 cr
PUBS	203	Community Relations	3 cr
PUBS	302	Introduction to Criminology	3 cr
PUBS	480	Seminar in Public Safety Problems	3 cr

PLUS: 15 additional credits in any *Public Safety Courses* which have not been taken as a part of the Public Safety required courses. 15 cr

THE DIVISIONS OF TEACHER EDUCATION AND FIELD AND SIMULATED EXPERIENCES

These divisions are responsible for the education programs in the areas of Elementary Education, Secondary Education (Field Certification), Physical Education, the Associate Media Specialist Program (formerly Teacher-Librarian Program) and The Middle and Junior High School Program. The divisions also provide service courses, primarily those dealing with certification requirements, for other divisions within the College.

ELEMENTARY EDUCATION FACULTY

Field and Simulated Experiences

CHAIRPERSON — E. Ward

PROFESSORS — A. Annacone,
E. F. Arthur, T. Gerne, W. Savage,
G. Vitalone, E. Ward, D. White

ASSOCIATE PROFESSORS —
N. D'Ambrosio, W. Engels, C. Spinosa

ASSISTANT PROFESSORS — P. Buckley,
J. Huber, T. Kenefick, M. Lament,
D. Lauricella, A. Maffei, D. Malcolm,
J. Peer, G. Petine, E. Petkus,
J. Rockman, J. Tetens

INSTRUCTOR — F. Goldberg

Teacher Education

CHAIRPERSON — J. Canino

PROFESSORS — J. Canino, K. Job,
E. Siegel, L. Walter, L. Zappo

ASSISTANT PROFESSOR — E. Rinaldi

The Elementary Education program prepares students for teaching in a variety of classroom settings through a sequence of courses in educational foundations, methodology, professional subject matter and field experiences. The program focuses on pertinent subject matter preparation and a blend of theory and practice which is intended to give prospective teachers substantive backgrounds with a positive attitude toward self-evaluation, experimentation, innovation and change. While major focus is on the ability to create good learning situations in a variety of instructional and organizational patterns, students may need or wish to strengthen one or more subject matter areas. The program provides flexibility through electives for the individual student under guidance to design various concentrations in relevant areas of instruction.

The Teacher Education and Field and Simulated Experiences Faculties offer students courses and experiences to develop professionalized content backgrounds in the elementary school, educational psychology, the arts, mathematics, science and social studies.

THE ELEMENTARY EDUCATION MAJOR

A. Major Courses³

(total 34 cr)

TED	231	Concepts and Skills of Elementary Mathematics	3 cr
TED	300	The Elementary School	3 cr
FASE	301	Practicum in Elementary Education	3 cr

TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
RLA	320	Teaching Language Arts in the Elementary School	3 cr
RLA	323	Teaching Reading	3 cr
FASE	324	Teaching Mathematics in the Elementary School	2 cr
FASE	325	Teaching Art in the Elementary School	2 cr
FASE	326	Teaching Music in the Elementary School	2 cr
FASE	327	Teaching Science in the Elementary School	2 cr
FASE	328	Teaching Social Studies in the Elementary School	2 cr
RLA	423	Advanced Reading Techniques ¹⁴	3 cr
PE	310	Health and Physical Education Program in the Elementary School	3 cr

B. Directed Electives

(total 15 cr)

A	Math Course ⁶	3 cr
A	Science Course ⁶	3 cr
A	Social Science Course ⁶	3 cr
A	Literature Course ⁶	3 cr
A	History Course ⁶	3 cr

C. Professional Education Sequence (Certification Requirements)

(total 24 cr)

PSY	110	General Psychology ⁶	3 cr
PSY	210	Developmental Psychology ²⁵	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
FASE	404	Seminar in Student Teaching	1 cr

PLUS: ONE Elementary Education Content Course (See Education Elective List I on page 80.) 3 cr

PLUS: ONE Education Elective from the Human Relations Area (See Education Elective List II A on page 80.) 3 cr

PLUS: ONE Education Elective from the Professional Preparation Area (See Education Elective List II B on page 80.) 3 cr

EDUCATION ELECTIVE LIST I

ELEMENTARY EDUCATION CONTENT COURSES

(Choose One)

RLA	325	Children's Literature
TED	230	Explorations in Art
TED	232	Fundamentals of Music
TED	234	Concepts and Skills in the Social Studies
TED	235	Concepts and Skills in Elementary Science
LMS	203	Media Selection for Children
LMS	302	Media Selection for Adolescents

EDUCATION ELECTIVE LIST II

Education Electives for Elementary Majors, Early Childhood Majors, Teacher Library/Media (formerly Teach-Librarian) Majors.

A. Human Relations Area

(Choose **One** with advisement)

SED	381	Educational Sociology
SED	391	Challenge, Change and Commitment in Education
SED	432	Human Adaptations and Alternatives in the School
URED	482	The Inner City Child and his Environment

B. Professional Preparation

(Choose **One** with advisement)

LMS	304	Instructional Media and the Curriculum
LMS	323	Modern Educational Media
SED	329	The Competencies of Open Education
SED	380	Insights and Outlooks in Education
FASE	398	Simulated Laboratory Experiences in Elementary Schools
HSA	400	Modern Approaches to Measurement in the Classroom
SPS	410	Educational Testing and Evaluation
SED	480	Field Research Studies in Teacher Education

EDUCATION ELECTIVE LIST III

Education Electives for Secondary Majors, Speech Pathology Majors, Middle and Junior High Majors, Physical Education Majors and Special Education Majors.

A. Human Relations Area

(Choose **One** with advisement)

- SED 381 Educational Sociology
- SED 391 Challenge, Change and Commitment in Education
- SED 432 Human Adaptations and Alternatives in the School
- URED 482 The Inner City Child and His Environment

B. Professional Preparation Area

(Choose **One** with advisement)

- SED 329 The Competencies of Open Education
- SED 342 Ecology for Educators
- SED 380 Insights and Outlooks in Education
- SED 428 Simulated Laboratory Experiences in Secondary Schools
- SED 430 Teaching Literature to Young Adults: Grades 5-12
- SED 480 Field Research in Teacher Education
- LMS 323 Modern Educational Media

The Middle and Junior High School Program is an integral part of the Faculty of Secondary Education. The Secondary Education Faculty also provides certain service courses common to all teacher education programs.

The Faculty of Secondary Education offers certification (K-12) in connection with the following subject matter majors:

College Majors	Certification (for all levels)
Art	Art
Black Studies	Social Studies
Biology	Science
Chemistry	Science
Communication	Speech Arts
English	English
French	French
Geography	Social Studies
History	Social Studies
Mathematics	Mathematics
Music	Music
Political Science	Social Studies
Sociology	Social Studies
Spanish	Spanish
Urban Education	Social Studies

The Faculty of Secondary Education coordinates its program with the various subject major faculties in the College of Arts and Sciences and the College of Human Services. Advisement is provided cooperatively for students entering programs in the Faculty of Secondary Education. Special forms are available for individualized student advisement. These forms indicate the liberal studies requirement, major courses, professional educational sequence, and academic certification requirements.

Special attention is given to advisement with respect to responsibilities, program, and personal competencies of those students who select teaching as a career.

Professional semesters and other appropriately designed field experiences in each discipline provide the student with early field experiences, methods of teaching, and culminating field laboratories coordinated with seminars.

TEACHER CERTIFICATION IN SECONDARY EDUCATION (SUBJECT MATTER SPECIALIST)

A. Liberal Studies

total 30 cr

SECONDARY EDUCATION FACULTY

CHAIRPERSON — C. Hartman

PROFESSORS — S. Chao, S. Clarke,
A. DeBros, H. Gumaer

ASSOCIATE PROFESSORS — R. Fern,
A. Geyer, C. Hartman, M. Kessler,
R. Walker, S. Wollock, J. Zweig

ASSISTANT PROFESSORS — L. Hummel,
C. Mancuso

The Faculty of Secondary Education offers teacher education programs which provide teaching expertise and state certification in various individual academic fields and in the performing arts.

B. Major Courses ³			total cr dependent upon major	major . . . art and music majors are exempt)	3 cr
Specialized courses in the subject major must be completed to fulfill departmental requirements.					
C. Directed Electives			total cr dependent upon major		
D. Secondary Education (K-12) Teaching Certification Requirements					
PSY	110	General Psychology ⁶	3 cr		
HSC	120	Current Health Problems ⁶	3 cr		

TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr		
		OR			
PSY	210	Developmental Psychology (for majors in art and music)	3 cr		

SED	340	Exploring the Teaching Field (A Pre-Student Teaching Requirement)	1 cr		
SED	302	Discovering Your Teaching Self (K-12)	3 cr		
RLA	329	Foundations of Reading	3 cr		
RLA	330	Reading Strategies for the Content Areas ¹⁶	3 cr		
SED	301	Curriculum and its Implementation (Art and music majors are exempt)	3 cr		

SED	330	Implementing Your Teaching Major (K-12) (Dependent upon major . . . art and music majors are exempt)	3 cr		
		OR			
SED	331	Implementing Your Teaching Major (K-12) (Dependent upon			

EDUC	403	Culminating Field Experience (Formerly Student Teaching)	8 cr
SED	404	Instructional Seminar for Student Teaching	1 cr

PLUS: One course from the *Human Relations Area* (See Education Elective List III A on page 81.) 3 cr

PLUS: One course from the *Professional Preparation Area* (See Education Elective List III B on page 81.) 3 cr

SED	326	Art, Children and Learning Vitality (for art majors only)	3 cr
SED	327	Art Education in the Secondary School (for art majors only)	3 cr
FASE	405	Art Education in the Elementary School (for art majors only)	3 cr

SED	324	Music Education in the Secondary School (for music majors only)	3 cr
FASE	406	Music Education in the Elementary School (for music majors only)	3 cr

SED	451	Education Lab: Crafts and Strategies in Earth Science (for biology and chemistry majors only)	4 cr
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NOTE: In addition to the above requirements, majors in art, black studies, communication, English, French, geography, history, mathematics, political science, sociology/anthropology, and urban education must fulfill certain **ACADEMIC CONTENT REQUIREMENTS** which are listed under the relevant major.
(The total number of credits which a student must take to complete the

Certification Requirements will differ with the respective majors. **Certification Requirements** for majors other than those listed under the Faculty of Secondary Education may be found associated with the respective major in the curriculum portion of the catalog.)

THE MIDDLE AND JUNIOR HIGH SCHOOL PROGRAM

The Middle and Junior High School Major leads to a Bachelor of Arts degree and to teaching certification in either social studies and English or mathematics and science concentrations. The minimum credits needed to complete the concentration in social studies or science is 30 credits; in English or mathematics, 24 credits.

The major provides expertise in the teaching of early adolescents in differing school settings. The teaching certification in New Jersey is valid for all levels in the fields of concentration. Regular and specific advisement is essential for students in this broad major.

THE MIDDLE AND JUNIOR HIGH SCHOOL MAJOR

A. Major Courses³

(total 24 cr)

SED	350	Teaching the Intermediate Years	3 cr
SED	351	Field Experience and Seminar-Stratum I	3 cr
SED	352	Curriculum of the Intermediate and Junior High School	3 cr

PLUS: TWO of the following: 6 cr

SED	360	New Perspectives in English ¹⁷	
SED	361	New Perspectives in Social Studies ¹⁷	
SED	362	New Perspectives in Science ¹⁷	
SED	363	New Perspectives in Mathematics ¹⁷	

PLUS:

PSY	319	Psychology of Early Adolescence	3 cr
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See footnotes, page 249.

RLA	329	Foundations of Reading	3 cr
SED	383	Teaching Reading in Grades 5-12	3 cr

B. Directed Electives

Majors must choose two concentrations (social studies and English or science and mathematics) and elect a specified number of credits within each concentration. The minimum number of Directed Elective credits needed to complete a concentration in *social studies or science* is **30 credits**; in *English or mathematics*, **24 credits**. Some of these courses may be taken in partial fulfillment of the Liberal Studies requirement.

C. Professional Education Sequence (Certification Requirements)

(total 24 cr)

PSY	110	General Psychology ⁶	3 cr
HSC	120	Current Health Problems ⁶	3 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
SED	404	Instructional Seminar for Student Teaching	1 cr

PLUS: ONE Education Elective from the *Human Relations Area* (See Education Elective List III A on page 81.) 3 cr

PLUS: ONE Education Elective from the *Professional Preparation Area* (See Education Elective List III B on page 81.) 3 cr

D. Academic Content Requirements (ADDITIONAL CERTIFICATION REQUIREMENTS)

In **ADDITION** to the requirements listed above under the Professional Education Sequence, students seeking certification must complete the following requirements in each area of concentration:

SOCIAL STUDIES

Students must take a minimum of 30 credits (see Directed Elective requirement) **to include:**

American History	6 cr
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European History	3 cr
Economics ¹¹	3 cr
Political Science ⁶	3 cr
Sociology/Anthropology ⁶	3 cr
Geography ⁶	3 cr
Black Studies ¹²	3 cr

ENGLISH

Students must take a minimum of 24 credits (see Directed Elective requirement) **to include at least 3 credits from each** of the following categories:

- Composition⁶
- Literature⁶
- Speech arts or dramatics⁶
- Communication arts⁶

SCIENCE

Students must take a minimum of 30 credits (see Directed Elective requirement) **to include at least 3 credits from each** of the following categories:

- Biological science⁶
- Physics⁶
- Chemistry⁶
- Earth Science⁶

MATHEMATICS

Students must take a minimum of 24 credits (see Directed Elective requirement) **to include at least 3 credits from each** of the following categories:

- Algebra
- Geometry
- Calculus⁶

PHYSICAL EDUCATION AND RECREATION FACULTY

CHAIRPERSON — T. Jable

ASSOCIATE PROFESSORS — L. Fonken,
T. Jable, S. Laubach, W. Myers, S. Silas

ASSISTANT PROFESSORS —
M.J. Cheesman, L. Dye, P. Huber,
V. Overdorf, A. Raidy

INSTRUCTORS — S. Becker, H. Breene,
F. Flaster, B. Rosen

The Faculty of Physical Education and Recreation offers major programs for men and women leading to the Bachelor of Arts Degree in Physical Education. This program is centered around a Human Movement Core leading to Professional Physical Education Studies with opportunity to specialize in Adapted

Physical Education, Athletic Training, Elementary or Secondary Physical Education, Coaching and Athletics, and Dance. Field laboratory experiences include pre-internship; intra-departmental; practicum and student teaching opportunities.

Students seeking certification in both Health and Physical Education are afforded this opportunity through interdisciplinary studies with Health Sciences. Minors are offered in recreation and physical education. Elective courses are offered to satisfy, in part, the liberal studies requirement and to fulfill recreational outlets. Extensive co-curricular programs in intercollegiate athletics, sports clubs, dance, intramurals and recreation are open to all men and women undergraduates.

Demonstration of Competency in Physical Education

All students admitted to the Physical Education Major must demonstrate competency in Physical Education by satisfactorily completing the basic core course — PE 160 (Human Movement and Skills I) See page 181 for description. PE 160 must be taken during a student's first semester in the Physical Education Major. In order to complete PE 160 (Human Movement and Skills I) satisfactorily, a student must earn the grade of "A," "B," or "C." If a student scores below the grade of "C," he/she shall receive the grade of "N" or "no credit." If a student earns the grade of "N," he/she must repeat the course and pass it with a grade of "C" or better in order to continue in the Physical Education Major. If a student earns the grade of "N" a second time, he/she cannot continue as a Physical Education Major.

Annual Review of Physical Education Majors

The Physical Education Department maintains a performance standard by which students are reviewed for continuing eligibility as majors. Details of this performance standard are provided by department advisors to those who intend to major in Physical Education.

THE PHYSICAL EDUCATION MAJOR

A. Major Courses³

(total 36 cr)

Human Movement Core

PE	160	Human Movement Activities and Skills I	3 cr
PE	162	Human Movement Activities and Skills II	3 cr
PE	380	Kinesiology	3 cr
PE	382	Physiology of Exercise	3 cr
PE	410	Psychology of Sport	3 cr
PE	411	Concepts and Principles of Motor Learning	3 cr
PE	412	Sociology of Sport	3 cr

PLUS: 2 or more credits in each of the following *EMPHASIS AREAS* to include a total of 15 credits. (**At least 6 credits must be in one area**) 15 cr

- Individual and Dual Sports
- Team Sports
- Aquatics
- Gymnastics
- Dance

B. Directed Electives

(total 6 cr)

BIO	210	Basic Anatomy and Physiology I	3 cr
BIO	211	Basic Anatomy and Physiology II	3 cr

C. Professional Education Sequence (Certification Requirements)

(total 42 cr)

PSY	110	General Psychology ⁶	3 cr
PSY	210	Developmental Psychology	3 cr
HSC	120	Current Health Problems ⁶	3 cr
PE	301	First Aid and Safety	1 cr
PE	383	Historical, Philosophical and Curricular Constructs of Physical Education	3 cr
PE	384	Teaching Human Movement and Physical Education	3 cr
PE	388	Adapted Physical Education	3 cr
PE	391	Practicum I	1 cr
PE	392	Practicum II	1 cr
PE	470	Tests and Measurements	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
PE	404	Seminar in Student Teaching	1 cr

RLA	329	Foundations of Reading	3 cr
RLA	330	Reading Strategies for the Content Areas ¹⁶	3 cr

PLUS: ONE Education Elective from the *Human Relations Area* (See Education Elective List III A on page 81) 3 cr

THE HEALTH EDUCATION CERTIFICATION ENDORSEMENT

(for Physical Education teaching Majors Only)

(total 24 cr)

BIO	170	Basic Microbiology	3 cr
BIO	302	Basic Genetics	3 cr
SOC	120	Marriage and the Family	3 cr
HSC	200	Consumer Health	3 cr
HSC	300	Community Health	3 cr
HSC	320	Nutrition	3 cr
HSC	351	Methods and Curriculum in School and Community Health Education	3 cr
HSC	490	Human Sexuality	3 cr

CONCENTRATIONS WITHIN PHYSICAL EDUCATION

A. Adapted Physical Education

(Open to Physical Education Majors and Minors, and Special Education Majors)

(total 15 cr)

PE	388	Adapted Physical Education	3 cr
SPED	201	Psychology and Education of Handicapped	3 cr
PSY	210	Developmental Psychology	3 cr

PLUS: TWO courses from the following: 6 cr

PE	393	Physical Education for the Orthopedically Handicapped	
PE	394	Physical Education for the Mentally Retarded	
PE	395	Physical Education for the Perceptually Impaired and/or Emotionally Disturbed	
REC	300	Introduction to Therapeutic Recreation	

B. Athletic Training¹⁸

(Physical Education Majors and Minors can specialize in Athletic Training. This program prepares the student for the National Athletic Trainers Association examination required for certification as an athletic trainer.)

(total 21 cr)			
PE	301	First Aid and Safety	1 cr
PE	381	Prevention and Care of Athletic Injuries	3 cr
PE	393	Physical Education for the Orthopedically Handicapped	3 cr
PE	397	Athletic Training Internship I	2 cr
PE	398	Athletic Training Internship II	2 cr
PE	415	Advanced Athletic Training	3 cr
PE	497	Athletic Training Internship III	2 cr
PE	498	Athletic Training Internship IV	2 cr
HSC	320	Nutrition	3 cr
PLUS:		Cardio-Pulmonary Resuscitation, Rescuer Level II	

C. Dance

(Open to all students, but particularly suitable for Education Majors, Recreation Minors, Theatre Majors, and Liberal Arts Majors)

(total 24 cr)			
PE	112	Ballet I ⁶	2 cr
PE	113	Ballet II ⁶	2 cr
PE	114	Modern Dance I ⁶	2 cr
PE	115	Modern Dance II ⁶	2 cr
PE	130	Introduction to Art of Dance ⁶	3 cr
PE	373	Choreography	3 cr
PE	376	Dance Performance Workshop I	2 cr
PE	377	Dance Performance Workshop II	2cr
PLUS: SIX credits to be chosen from among the following:			6 cr
PE	117	Folk, Square and Ballroom Dancing	
PE	370	Folk and Square Dance Leadership	
PE	217	Modern Jazz Dance Techniques	
PE	271	Teaching Dance	
PE	375	Advanced Choreography and Dance Production	

THE MINOR IN PHYSICAL EDUCATION

(Open to majors other than Physical Education. This minor does not result in certification that will permit students to teach in the public schools.)

(total 24 cr)

PE	160	Human Movement Activities and Skills I	3 cr
PE	162	Human Movement Activities and Skills II	3 cr
BIO	210	Basic Anatomy and Physiology I	3 cr
BIO	211	Basic Anatomy and Physiology II	3 cr

PE	388	Adapted Physical Education	3 cr
OR			
PE	470	Tests and Measurements	

PLUS:

PE	380	Kinesiology	3 cr
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PLUS: SIX credits of *Activity courses*

6 cr

THE MINOR IN RECREATION AND LEISURE STUDIES

(Open to all students)

(total 24 cr)

REC	110	Foundations in Leisure Studies	3 cr
REC	291	Recreational Leadership	3 cr
REC	292	Programs in Recreation	3 cr
REC	390	Field Work in Recreation	3 cr

PLUS: TWELVE credits from the following:

12 cr

PE	100-129	Leisure Time and Recreational Activities	
TED	221	Crafts in the School	
REC	290	Camp Counseling	
REC	300	Introduction to Therapeutic Recreation	
PE	301	First Aid and Safety	
REC	305	Community Recreation	
REC	306	Recreation Facilities and Management	
REC	307	Social Recreation	

- REC 310 Recreation for the Aging
- REC 400 Organization and Administration of Recreation
- REC 481 Recreation for Adults
- REC 482 Leisure Crafts and Activities in Recreation

NOTE: One or more of the following courses in related disciplines may be used in lieu of an elective listed above with the consent of your advisor:

- PE 130 Introduction to Art of Dance
- TED 224 Pupperty
- LMS 321 Visual Media
- THEA 311 Drama for Children
- PE 370 Folk and Square Dance Leadership
- PE 386 Rhythmic Activities and Games for Children
- PE 388 Adapted Physical Education
- PE 393 Physical Education for the Orthopedically Handicapped
- SED 437 Adult and Continuing Education
- URED 480 Ethnic Dance

FACULTY OF READING AND LANGUAGE ARTS

CHAIRPERSON — M. Wittick

PROFESSORS — B. Grant, M. Karp, M. Wittick

ASSOCIATE PROFESSORS — G. Brown, J. Feeley

ASSISTANT PROFESSORS — M. Dougherty, D. Franchino, A. Pachtman, M. Turkish, H. Wilkins

INSTRUCTOR — A. Havriliak

The Faculty of Reading and Language Arts provides the following courses to serve the Elementary Education majors:

- RLA 320 Teaching Language Arts in the Elementary School
- RLA 323 Teaching Reading
- RLA 324 Reading Practicum
- RLA 325 Children's Literature

- RLA 423 Advanced Reading Techniques
- RLA 427 Special Reading Field Services
- RLA 495 Reading Improvement and Practicum
- RLA 499 Independent Study

These same courses are open as service courses for other Education majors. With approval, some graduate courses in Reading and Language Arts are open to students with a strong academic record.

For non-Elementary majors, the department offers:

- RLA 329 Foundations of Reading
- RLA 330 Reading Strategies for the Content Areas
- RLA 331 Reading Practicum

TEACHER LIBRARY/MEDIA SPECIALIST PROGRAM

The Teacher-Library/Media Major qualifies its graduates for two New Jersey school certificates: Elementary teaching certificate and Associate Educational Media Specialist certificate.

Students in this curriculum may prepare for graduate schools of library science and educational media or seek employment as an elementary teacher or as an Associate Educational Media Specialist.

An Associate Educational Media Specialist Endorsement, to go with another teaching field, is also offered.

THE TEACHER LIBRARY/MEDIA SPECIALIST MAJOR

A. Major Courses³

(total 50 cr)

- | | | | |
|-------|-----|--|------|
| LMS | 201 | Introduction to Library/Media Services | 3 cr |
| LMS | 202 | Information Sources | 3 cr |
| ----- | | | |
| LMS | 203 | Media Selection for Children | 3 cr |
| | | OR | |
| LMS | 302 | Media Selection for Adolescents | |
| ----- | | | |

PLUS:

- | | | | |
|-----|-----|-----------------------------------|------|
| LMS | 303 | Organization of Information Media | 3 cr |
|-----|-----|-----------------------------------|------|

LMS	304	Instructional Media and the Curriculum	3 cr
LMS	323	Modern Educational Media	3 cr
LMS	401	Preparation of Media Materials	3 cr
LMS	402	Services of School Library/Media Center	3 cr
TED	300	The Elementary School	3 cr
FASE	301	Practicum in Elementary Education	3 cr
RLA	320	Teaching Language Arts in the Elementary School	3 cr
RLA	323	Teaching Reading	3 cr
FASE	324	Teaching Mathematics in the Elementary School	2 cr

FASE	325	Teaching Art in the Elementary School	2 cr
OR			
FASE	326	Teaching Music in the Elementary School	

PLUS:

FASE	327	Teaching Science in the Elementary School	2 cr
FASE	328	Teaching Social Studies in the Elementary School	2 cr
PE	310	Health and Physical Education Programs in the Elementary Schools	3 cr
RLA	423	Advanced Reading Techniques	3 cr

B. Directed Electives

(total 9 cr)

A	Science Course ⁶	3 cr
A	History Course ⁶	3 cr
A	Literature Course ⁶	3 cr

C. Professional Education Sequence (Certification Requirements)

(total 21-22 cr)

LMS	305	Library/Media Field Experience (optional)	1 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
LMS	397	Library/Media Internship	3 cr

EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
FASE	404	Seminar in Student Teaching	1 cr

PLUS: ONE Elementary Education

Content Course (See Education Elective List I on page 80.) 3 cr

PLUS: ONE Education Elective from

the *Human Relations Area* (See Education Elective List II A on page 80.) 3 cr

THE ASSOCIATE EDUCATIONAL MEDIA SPECIALIST ENDORSEMENT (for

undergraduate teaching majors who wish certification as an Associate Educational Media Specialist)

(total 21 credits)

LMS	201	Introduction to Library/Media Services	3 cr
LMS	202	Information Sources	3 cr
LMS	303	Organization of Information Media	3 cr
LMS	397	Library/Media Internship (Practicum)	3 cr
LMS	401	Preparation of Media Materials	3 cr
LMS	402	Services of School Library/Media Center	3 cr

PLUS: ONE course to be taken from the following:

3 cr

LMS	203	Media Selection for Children	
LMS	302	Media Selection for Adolescents	
LMS	304	Instructional Media and the Curriculum	

DIVISION OF SPECIAL SERVICES

THE SPECIAL EDUCATION FACULTY

CHAIRPERSON — M. Swack

PROFESSORS — M. Gruenert, L. Stoia, M. Swack, W. Younie

ASSOCIATE PROFESSORS — E. Abare, H. Ferster, L. Hayes

ASSISTANT PROFESSORS — G. Ford, M. Heller, K. Leicht

INSTRUCTORS — S. Kuveke, J. Pollack

The Special Education Program offers a broad liberal education together with intensive specialized study leading to a Bachelor of Arts degree in educating the handicapped student. The major emphasizes the area of mental retardation along with emotional disturbance, physical handicaps, and learning disabilities. The department offers many practical experiences in classroom management. The use of instructional materials exposes the student to the various structures used in the education of exceptional children and presents various modes of curriculum planning for exceptional children. Students majoring in Special Education are prepared for teaching positions in all areas with the exception of the blind and the deaf, in public and private schools and residential institutions. They are eligible upon successful completion of the program to be certified as teachers of the handicapped by the State of New Jersey. Graduates may teach the maladjusted, multiple handicapped, and orthopedically handicapped. Major students who elect the prescribed elementary school endorsement sequence will also receive elementary certification upon graduation.

Entrance Requirements to the Special Education Major

Students requesting admission to the Special Education department must present documentation or evidence of having worked with handicapped children (120 clock hours, non-public school).

THE SPECIAL EDUCATION MAJOR

A. Major Courses³

(total 36 cr)

SPED	201	Psychology and Education of the Handicapped	3 cr
SPED	301	Education of the Trainable Mentally Retarded	3 cr
SPED	302	Education of the Educable Mentally Retarded I	3 cr
SPED	303	Education of the Educable Mentally Retarded II	3 cr
SPED	304	Teaching Reading to the Mentally Retarded	3 cr

SPED	305	Art Activities in Special Education	3 cr
SPED	320	Practicum in Special Education	3 cr
SPED	410	Counseling and Vocational Guidance for Handicapped Children	3 cr
SPED	411	Prescriptive Teaching	3 cr
SPED	412	Education of Emotionally and Socially Maladjusted	3 cr
SPED	413	Education of the Neurologically Impaired and Physically Handicapped	3 cr
RLA	423	Advanced Reading Techniques	3 cr

B. Directed Electives

(total 13 cr)

PE	388	Adapted Physical Education	3 cr
PATH	261	Speech Disorders	3 cr
PSY	210	Developmental Psychology	3 cr
BIO	214	Applied Anatomy and Physiology	4 cr

C. Professional Education Sequence (Certification Requirements)

(total 24 cr)

PSY	110	General Psychology ⁶	3 cr
HSC	120	Current Health Problems ⁶	3 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
SPED	404	Seminar in Student Teaching	1 cr

PLUS: ONE Education Elective from the *Human Relations Area* (See Education Elective List III A on page 81.) 3 cr

PLUS: ONE Education Elective from the *Professional Preparation Area* (See Elective List III B on page 81.) 3 cr

NOTE: A teacher aide experience is arranged during the Fall Semester.

It is called *The Pre-Practicum Experience* with no course credit given. One full day must be kept open to accommodate this requirement.

Practicum: A practicum, SPED 320, is required of all majors in their junior year. The practicum affords the student the opportunity to work with handicapped children in a realistic setting. This is done in either a public school, a private or state institution, or agencies during the Spring Semester.

The Office of Field Laboratory Experiences, 201-595-2109, or the Department of Special Education, 201-595-2118, may be contacted for further information.

**THE ELEMENTARY EDUCATION
ENDORSEMENT** (for Special Education
Majors only)

(total 15 cr)

TED	300	The Elementary School	3 cr
EC	351	Math in Early Childhood	3 cr
RLA	320	Teaching Language Arts in the Elementary School	3 cr
FASE	326	Teaching Music in the Elementary School	2 cr
FASE	327	Teaching Science in the Elementary School	2 cr
FASE	328	Teaching the Social Studies in the Elementary School	2 cr

SPECIAL EDUCATION COURSES (for
students in another teaching major who
wish courses in Special Education)

(total 21 cr)

SPED	201	Psychology and Education of the Handicapped	3 cr
SPED	301	Education of the Trainable Mentally Retarded	3 cr
SPED	302	Education of the Educable Mentally Retarded I	3 cr
SPED	303	Education of the Educable Mentally Retarded II	3 cr
SPED	304	Teaching Reading to the Mentally Retarded	3 cr

SPED	410	Counseling and Vocational Guidance for Handicapped Children	3 cr
SPED	411	Prescriptive Teaching	3 cr

**SPEECH PATHOLOGY AND
AUDIOLOGY FACULTY**

CHAIRPERSON — W. Hill

PROFESSORS — F. Cohen, W. Hill

ASSISTANT PROFESSORS — E. Chopek,
A. Freund, J. Haskell, A. Ramer

INSTRUCTOR — G. Walsh

A major in speech pathology leading to a Bachelor of Arts Degree prepares the student for a position as a speech correctionist. The undergraduate program in speech pathology has been planned in conjunction with the graduate course work so that a student may complete the academic and clinical requirements for a master's degree and certification by the American Speech and Hearing Association in five years. One hundred and fifty hours of clinical experience are required of all students. A minimum of 90 hours must be completed in the college speech and hearing clinics. Of those clinical hours acquired during the student teaching experience, 60 may be applied toward the 150 hour total requirement. Students who do not choose to complete student teaching must fulfill their 150 hours of clinical experience in the college speech and hearing clinics. Transfer students or students declaring their major in speech pathology during the sophomore year or later should be prepared to complete at least one additional semester of course work. An appointment should be arranged with a member of the Speech Pathology Faculty for a personal interview and speech evaluation to be accepted as a major.

THE SPEECH PATHOLOGY MAJOR

A. Major Courses³

(total 31 cr)

PATH	160	Phonetics	3 cr
PATH	262	Orientation to Speech Pathology and Audiology	3 cr
PATH	205	Speech Laboratory I	1 cr
PATH	263	Articulation Disorders	3 cr

PATH	302	Speech Laboratory II	1 cr
PATH	361	Anatomy and Physiology of Auditory and Vocal Mechanisms	3 cr
PATH	363	Introduction to Audiology	3 cr
PATH	312	Speech Laboratory III	1 cr
PATH	365	Voice Disorders in Children	3 cr
PATH	366	Language Theory and Therapy	3 cr

PATH	402	Speech Laboratory IV	1 cr
		OR	
PATH	412	Language Laboratory V	
		OR	
PATH	413	Voice Laboratory VI	

PLUS:

PATH	462	Auditory Rehabilitation	3 cr
PATH	463	Stuttering and Other Rhythm Disorders	3 cr

B. Directed Electives

(total 7 cr)

SPED	201	Psychology and Education of the Handicapped	3 cr
BIO	214	Applied Anatomy and Physiology	4 cr

**C. Professional Education Sequence
(Certification Requirements)**

(total 30 cr)

PSY	110	General Psychology ⁶	3 cr
HSC	120	Current Health Problems ⁶	3 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
PATH	404	Seminar in Student Teaching	1 cr
PATH	425	Teaching Speech	3 cr
PATH	426	Organizing Speech and Hearing Programs	3 cr

PLUS: ONE Education Elective from the *Human Relations Area* (See

See footnotes, page 249.

Education Elective List III A on page 81.) 3 cr

PLUS: ONE Education Elective from the *Professional Preparation Area* (See Education Elective List III B on page 81.) 3 cr

NOTE: Though not required, the following 6/9 credits of reading are recommended:

RLA	329	Foundations of Reading (basic course)
RLA	423	Advanced Reading Techniques
		OR
RLA	495	Reading Improvement and Practicum

THE DIVISION OF URBAN STUDIES

The Division of Urban Studies is composed of the Black Studies, Early Childhood and Urban Education faculties, each of which offers a program leading to a bachelor's degree. A program leading to certification in Bilingual Education and in the Teaching of English as a Second Language is also offered.

The purpose of the Division is to enable students to apply sound educational and social science principles toward the improvement of human services and the resolution of human problems.

Emphasis is placed upon exploring ways of improving the learning process and teaching techniques in order to affect a healthy development of the human mind as early as its infant stages.

The urban milieu is examined in light of its relationship to the larger metropolitan environment, and in particular, the manner in which social arrangements such as family, political, economic and educational structures impact upon the quality of life.

The plight of the poor and of racial and ethnic minorities is examined in both contemporary and historical contexts. Differences in the quality of educational, environmental, and social conditions between urban, rural and suburban settings are observed.

BLACK STUDIES FACULTY

CHAIRPERSON — J. Waiguchu

ASSOCIATE PROFESSORS — E. Bell,
J. Waiguchu

ASSISTANT PROFESSORS — L. Jones,
J. Jordon, V. McClean

The Black Studies Faculty offers both a major and a minor program, plus a variety of ethnic courses as free electives for students in other major programs. The Black Studies major may be combined with various certification sequences to provide the student with Elementary Education, Early Childhood Education or Social Studies certification. The program and courses in Black Studies are intended to offer all students an introduction to the history of African and Afro-American peoples; to provide more extensive training in these areas for students with a suitable background for graduate work in African and Afro-American studies; to prepare students for careers in urban study and community work; and to provide leadership opportunities for minority groups.

THE BLACK STUDIES MAJOR

A. Major Courses³

(total 33 cr)

BLST	100	Introduction to Black Studies	3 cr
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PLUS: 30 additional credits

distributed evenly through the following areas: *Historical, Cultural, Political, Social-Psychological, and Community Affairs* 30 cr

B. Certification in Elementary Education (taken in conjunction with the Black Studies Major)

(total 81 cr)

FASE	303	Education Laboratory: Crafts and Strategies in Elementary Mathematics	4 cr
FASE	301	Practicum in Elementary Education	3 cr
FASE	305	The Urban and Suburban Elementary Schools: Problems and Issues	4 cr
FASE	324	Teaching Math in the Elementary School	2 cr

PLUS:

{	FASE	325	Teaching Art in the Elementary School	2 cr
	AND			
{	FASE	326	Teaching Music in the Elementary School	2 cr
	OR			
	FASE	306	Aesthetic Laboratory in Music and Art (4 cr)	

PLUS:

FASE	327	Teaching Science in the Elementary School	2 cr
FASE	328	Teaching Social Studies in the Elementary School	2 cr
RLA	320	Teaching Language Arts in the Elementary School	3 cr
RLA	323	Teaching Reading	3 cr
RLA	423	Advanced Reading Techniques	3 cr
		<i>A Math Course⁶</i>	3 cr
		<i>A Science Course⁶</i>	3 cr
		<i>A Social Science Course⁶</i>	3 cr
		<i>A Literature Course⁶</i>	3 cr
		<i>A History Course⁶</i>	3 cr

PSY	110	General Psychology ⁶	3 cr
TED	210	Educational Psychology: Multidimensional Characteristics of People and Habitats	3 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
URED	482	The Inner City Child and His Environment	3 cr
PE	310	Health and Physical Education Program in the Elementary School	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
FASE	404	Seminar in Student Teaching	1 cr
TBED	301	Theories and Practices of Bilingual Education and E.S.L.	3 cr
URED	110	Introduction to Urban Studies	3 cr

PLUS: ONE Elementary Education Content Course (See Elementary

Education Elective List I
on page 80.) 3 cr

PLUS: ONE Education Elective from
the *Professional Preparation Area*
(See Education Elective List II B
on page 80.) 3 cr

C. Certification in Secondary Social Studies
(Field Certification) taken in conjunction
with the Black Studies Major.
(total 64 cr)

PSY	110	General Psychology ⁶	3 cr
HSC	120	Current Health Problems ⁶	3 cr
SED	302	Discovering Your Teaching Self (K-12)	3 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
URED	482	The Inner City Child and His Environment	3 cr
SED	301	Curriculum and Its Implementation	3 cr
SED	331	Implementing Your Teaching Major (K-12): Social Studies	3 cr
SED	340	Exploring the Teaching Field	1 cr
SED	404	Instructional Seminar for Student Teaching	1 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
RLA	329	Foundations of Reading	3 cr
RLA	330	Reading Strategies for the Content Areas ¹⁶	3 cr
TBED	301	Theories and Practices of Bilingual Education and E.S.L.	3 cr

PLUS: ONE Education Elective from
the *Professional Preparation Area*
(See Education Elective List III B
on page 81.) 3 cr

PLUS:	American History	6 cr
	European History	3 cr
	Economics ¹¹	3 cr
	Political Science ⁶	3 cr
	Sociology/ Anthropology ⁶	3 cr
	Geography ⁶	3 cr

D. Certification in Early Childhood
Education (taken in conjunction with the

Black Studies Major)
(total 76 cr)

EC	201	Creative Art for Early Childhood	3 cr
EC	202	Music and the Young Child	3 cr
EC	220	Reading and the Young Child	3 cr
EC	221	The Young Child and Language Arts	3 cr
EC	300	Practicum in Early Childhood Education	4 cr
EC	320	Early Childhood Curriculum I	6 cr
EC	321	Early Childhood Curriculum II	6 cr
EC	351	Mathematics in Early Childhood Education	3 cr
EC	364	Workshop in Reading and Learning Problems of Young Child	3 cr
PSY	210	Developmental Psychology	3 cr
PATH	410	Language Development and Speech Improvement	3 cr
SPED	430	Education of the Exceptional Child	3 cr
		<i>A History Course⁶</i>	3 cr
		<i>A Science Course⁶</i>	3 cr
		<i>A Math Course⁶</i>	3 cr
PSY	110	General Psychology ⁶	3 cr
HSC	321	Nutrition in Early Childhood	3 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
EC	404	Seminar in Early Childhood	1 cr

PLUS: ONE Education Elective from
the *Human Relations Area* (See
Education Elective List II A on
page 80.) 3 cr

PLUS: ONE Education Elective from
the *Professional Preparation Area*
(See Education Elective List II B
on page 80.) 3 cr

EARLY CHILDHOOD FACULTY

CHAIRPERSON — M. Moreno

PROFESSOR — M. Moreno

ASSOCIATE PROFESSORS — A. Callandro,
A. Colletta

ASSISTANT PROFESSORS — L. Aitken,
J. Juncker, C. Nyandaro

INSTRUCTOR — P. Boyson

The Early Childhood Education Program provides the student with a broad background of liberal studies together with an intensive program of theoretical and practical courses and experiences as preparation for teaching young children (0 through 8) in nursery schools, day care centers, Head Start Programs, public schools and other child development programs. Graduates of this program receive a Bachelor of Arts degree and New Jersey Certification (K-8) with a Nursery School endorsement.

THE EARLY CHILDHOOD MAJOR

A. Major Courses³

(total 34 cr)

EC	201	Creative Art for Early Childhood	3 cr
EC	202	Music and the Young Child	3 cr
EC	220	Reading and the Young Child	3 cr
EC	221	The Young Child and Language Arts	3 cr
EC	300	Practicum in Early Childhood Education	4 cr
EC	320	Early Childhood Curriculum I	6 cr
EC	321	Early Childhood Curriculum II	6 cr
EC	351	Mathematics in Early Childhood Education	3 cr
EC	364	Workshop in Reading and Learning Problems of Young Child	3 cr

B. Directed Electives

(total 18 cr)

PSY	210	Developmental Psychology	3 cr
PATH	410	Language Development and Speech Improvement	3 cr
SPED	430	Education of the Exceptional Child	3 cr
<i>A History Course⁶</i>			3 cr

A Science Course⁶ 3 cr

A Math Course⁶ 3 cr

C. Professional Education Sequence (Certification Requirements)

(total 24 cr)

PSY	110	General Psychology ⁶	3 cr
HSC	321	Nutrition in Early Childhood	3 cr
TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
EC	404	Seminar in Early Childhood	1 cr

PLUS: One Education Elective from the *Human Relations Area* (See Education Elective List II A on page 80.) 3 cr

PLUS: One Education Elective from the *Professional Preparation Area* (See Education Elective List II B on page 80.) 3 cr

URBAN EDUCATION AND COMMUNITY AFFAIRS FACULTY

CHAIRPERSON — V. Baldassano

PROFESSORS — J. Baines, L. Hilton,
R. Klein, G. Vitalone

ASSOCIATE PROFESSORS — G. Keller,
R. Simmons, W. Small, W. Willis

ASSISTANT PROFESSORS —
V. Baldassano, J. Cobarrubias, J. Gallo,
J. Mamone, W. Mason, E. Ordonez,
S. Valle-Killeen

The Urban Education and Community Affairs Faculty offers a program in urban education which is designed to provide knowledgeable and sensitive professionals for all areas and types of urban learning situations.

Students may select from any one of three educational tracks:

1. Urban Education with Nursery, Kindergarten, and Elementary Certification;
2. Urban Education with Elementary Certification;
3. Urban Education with Secondary School Social Studies Certification (Field Certification)

THE URBAN EDUCATION MAJOR

A. Major Courses³

(total 30-33 cr)

URED	200	Introduction to Urban Education	3 cr
URED	301	Community Affairs Seminars and Field Study	3-6 cr
URED	482	The Inner City Child and His Environment	3 cr
PSY	323	Race and Social Class in Psychological Development	3 cr

PLUS: 18 credits to be selected from the following: 18 cr

CHEM	110	Crisis of the Environment	
ECON	350	Urban and Welfare Economics	
GEO	400	Urban Geography	
HIST	425	U.S. Immigration in the Growth of America	
REC	292	Programs in Recreation	
POL	254	Urban and Suburban Politics	
POL	350	Public Administration: Management in the Public Service	
PUBS	203	Community Relations	
SED	381	Educational Sociology	
SOC	250	Urban Sociology	
SOC	251	Minority Groups I	
SOC	252	Minority Groups II	
PATH	410	Language Development and Speech Improvement	
SPED	430	Education of the Exceptional Child	
URED	210	Drug Use and Abuse	
URED	304	Education of Self	
URED	372	Development and Change in Education	
URED	480	Ethnic Dance	
URED	491	Urban Colloquial Spanish	

B. Certification in Elementary Education (taken in conjunction with the Urban Education Major)

(total 78 cr)

FASE	303	Education Laboratory: Crafts and Strategies in Elementary Mathematics	4 cr
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FASE	301	Practicum in Elementary Education	3 cr
FASE	305	The Urban and Suburban Elementary Schools: Problems and Issues	4 cr
FASE	324	Teaching Math in the Elementary School	2 cr

PLUS:

{	FASE	325	Teaching Art in the Elementary School	2 cr
	AND			
	FASE	326	Teaching Music in the Elementary School	2 cr
OR				
	FASE	306	Aesthetic Laboratory in Music and Art (4 cr)	

PLUS:

FASE	327	Teaching Science in the Elementary School	2 cr
FASE	328	Teaching Social Studies in the Elementary School	2 cr
RLA	320	Teaching Language Arts in the Elementary School	3 cr
RLA	323	Teaching Reading	3 cr
RLA	423	Advanced Reading Techniques	3 cr
		<i>A Math Course⁶</i>	3 cr
		<i>A Science Course⁶</i>	3 cr
		<i>A Social Science Course⁶</i>	3 cr
		<i>A Literature Course⁶</i>	3 cr
		<i>A History Course⁶</i>	3 cr

TED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3 cr
PSY	110	General Psychology ⁶	3 cr
TED	210	Educational Psychology: Multidimensional Characteristics of People and Habitats	3 cr
PE	310	Health and Physical Education Program in the Elementary School	3 cr
EDUC	403	Culminating Field Experience (formerly Student Teaching)	8 cr
FASE	404	Seminar in Student Teaching	1 cr
BLST	100	Introduction to Black Studies	3 cr

TBED 301 Theories and Practices of Bilingual Education and E.S.L. 3 cr

PLUS: ONE Elementary Education Content Course (See Elementary Education Elective List I on page 80.) 3 cr

PLUS: ONE Education Elective from the *Professional Preparation Area* (See Education Elective List II B on page 80.) 3 cr

C. Certification in Secondary Social Studies (Field Certification) taken in conjunction with the Urban Education/Urban Studies Major.

(total 61 cr)

PSY 110 General Psychology⁶ 3 cr

HSC 120 Current Health Problems⁶ 3 cr

SED 302 Discovering Your Teaching Self (K-12) 3 cr

TED 310 Educational Psychology: Adaptations and Interventions in the Classroom 3 cr

SED 301 Curriculum and Its Implementation 3 cr

SED 331 Implementing Your Teaching Major (K-12): Social Studies 3 cr

SED 340 Exploring the Teaching Field 1 cr

SED 404 Instructional Seminar for Student Teaching 1 cr

EDUC 403 Culminating Field Experience (Formerly Student Teaching) 8 cr

RLA 329 Foundations of Reading 3 cr

RLA 330 Reading Strategies for the Content Areas¹⁶ 3 cr

TBED 301 Theories and Practices of Bilingual Education and E.S.L. 3 cr

PLUS: ONE Education Elective from the *Professional Preparation Area* (See Education Elective List III B on page 81.) 3 cr

PLUS: American History 6 cr
European History 3 cr
Economics¹¹ 3 cr
Political Science⁶ 3 cr
Sociology/
Anthropology⁶ 3 cr
Geography⁶ 3 cr

D. Certification in Early Childhood Education (taken in conjunction with the Urban Education Major)

(total 76 cr)

EC 201 Creative Arts for Early Childhood 3 cr

EC 202 Music and the Young Child 3 cr

EC 220 Reading and the Young Child 3 cr

EC 221 The Young Child and Language Arts 3 cr

EC 300 Practicum in Early Childhood Education 4 cr

ED 320 Early Childhood Curriculum I 6 cr

EC 321 Early Childhood Curriculum II 6 cr

EC 351 Mathematics in Early Childhood Education 3 cr

EC 364 Workshop in Reading and Learning Problems of Young Child 3 cr

PSY 210 Developmental Psychology 3 cr

PATH 410 Language Development and Speech Improvement 3 cr

SPED 430 Education of the Exceptional Child 3 cr

*A History Course*⁶ 3 cr

*A Science Course*⁶ 3 cr

*A Math Course*⁶ 3 cr

PSY 110 General Psychology⁶ 3 cr

HSC 321 Nutrition in Early Childhood 3 cr

TED 310 Educational Psychology: Adaptations and Interventions in the Classroom 3 cr

EDUC 403 Culminating Field Experience (formerly Student Teaching) 8 cr

EC 404 Seminar in Early Childhood 1 cr

PLUS: ONE Education Elective from the *Human Relations Area* (See Education Elective List II A on page 80.) 3 cr

PLUS: ONE Education Elective from the *Professional Preparation Area* (See Education Elective List II B on page 80.) 3 cr

ENDORSEMENT IN BILINGUAL/ BICULTURAL EDUCATION

(for any teaching major)

(total 24 cr)

TBED 301 Theories and Practices
in Bilingual Education
and E.S.L. 3 cr

TBED 302 Children of Caribbean
Cultures 3 cr

TBED 303 Minority Children in
the Urban Setting 3 cr

OR

URED 482 The Inner City Child
and His Environment

PLUS:

TBED 309 Applied Linguistics 3 cr

TBED 402 Methodology of
Second Language
Teaching I 3 cr

TBED 304 Curriculum
Development and
Evaluation in Bilingual
Education 3 cr

TBED 318 Field Experience
(Spanish) 3 cr

OR

TBED 319 Field Experience
(English)

PLUS: Any *bilingual/bicultural* course
or *practicum* 3 cr

NOTE: The State proficiency
examination in English and
Spanish must be passed.

ENDORSEMENT IN TEACHING ENGLISH AS A SECOND LANGUAGE

(for any teaching major)

(total 30 cr)

TBED 301 Theories and Practices
in Bilingual Education
and E.S.L. 3 cr

TBED 302 Children of Caribbean
Cultures 3 cr

TBED 303 Minority Children in
the Urban Setting 3 cr

OR

URED 482 The Inner City Child
and His Environment

PLUS:

TBED 309 Applied Linguistics 3 cr

ENG 401 Linguistics and
Grammar 3 cr

ENG 402 Development of the
English Language 3 cr

A Linguistics Elective 3 cr

TBED 402 Methodology of
Second Language
Teaching I 3 cr

TBED 319 Field Experience
(English) 3 cr

PLUS: A course in a language other
than English 3 cr

NOTE: The State proficiency
examination in English must be
passed.

THE SCHOOL OF NURSING AND ALLIED HEALTH

Kathleen Connolly, M. Ed., Acting Dean

THE NURSING FACULTY

CHAIRPERSON — I. Foti

PROFESSOR — M. Marshall

ASSOCIATE PROFESSORS — A. Cerchio,
A. Flynn, H. Maciorowski

ASSISTANT PROFESSORS — D. Booker,
B. Cohen, K. Connolly, D. D'Amico,
K. Enge, I. Foti, H. Hakerem, D. Holahan,
S. Lang, E. Marvel, M. McElgunn,
W. McLeod, P. Munhall, M. O'Donnell,
B. Parigoris, J. Parikh, L. Pedlar,
C. Ringer, E. Robertson, O. Sobolak,
A. Soderholm, C. Strobeck, A. Sudduth

INSTRUCTORS — A. Capo, J. Cope,
J. Crane, S. Everett, P. Frammigen,
R. Mitchell, I. Von Drateln

The School of Nursing is nationally
accredited by the National League for
Nursing. Its major mission is the education
of students who will serve as professional
practitioners of nursing in agencies and
settings in which delivery of health care is a
service of the organization. The major
offering of the School includes a major in
professional nursing supported by a
concentration in the biological and physical

sciences and a broad base of liberal studies courses.

Transfer students and students who are changing their major are eligible for admission to the major following acceptance by the Admissions Committee of the School of Nursing, but should be aware that the development of the major begins at the sophomore level.

The Nursing Department maintains a performance standard by which students are reviewed for continuing eligibility as majors. Details of this performance standard are provided by Department Advisors to those who intend to major in Nursing.

Graduates of this program are awarded the Bachelor of Science degree with a major in Nursing and a Minor in the Biological Sciences.

Graduates are eligible to take the licensure examination administered by the New Jersey Board of Nurse Examiners under the regulations of the Department of Law and Public Safety. Success on the licensing examination is indicated by consent to use the designation, Registered Professional Nurse (R.N.) following the name.

THE NURSING MAJOR

A. Major Courses³

(total 58 cr)

NUR	201	Nursing Science I	8 cr
NUR	202	Nursing Science II	8 cr
NUR	301	Nursing Science III	9 cr
NUR	302	Nursing Science IV	9 cr
NUR	401	Nursing Science V	12 cr
NUR	402	Nursing Science VI	12 cr

B. Directed Electives

(total 35 cr)

CHEM	164	College Chemistry ⁶	4 cr
CHEM	165	Organic Biochemistry	4 cr
BIO	170	Basic Microbiology	3 cr
PSY	110	General Psychology ⁶	3 cr
PSY	210	Developmental Psychology	3 cr
PSY	430	Social Psychology	3 cr
BIO	212	General Anatomy and Physiology I	4 cr
BIO	213	General Anatomy and Physiology II	4 cr
BIO	302	Basic Genetics	3 cr
BIO	312	Advanced Anatomy and Physiology	4 cr

HEALTH SCIENCES FACULTY

CHAIRPERSON — S. Lisbe

PROFESSOR — S. Lisbe

ASSOCIATE PROFESSORS — A. Hudis,
R. Shipley

ASSISTANT PROFESSORS — R.L. Daniels,
M. Steinberg

INSTRUCTORS — G. Diem, A. Molnar,
M. Park

The Health Science Faculty offers a major program leading to a Bachelor of Science degree in Community Health Education and/or School Health Education. The Faculty also offers certification in School Health Education for Physical Education majors as well as service and elective courses designed to promote more effective living through health education. The major in Community Health Education is designed to prepare individuals to work with professionals in health and allied fields and with the community in planning, carrying out, and evaluating the educational component of community health services. The program provides a varied background for students who desire to pursue a graduate degree in the health profession.

Health educators are employed by local, state & federal and voluntary health agencies, community health centers, hospitals, clinics, health maintenance organizations, and private industry.

THE COMMUNITY HEALTH EDUCATION MAJOR

A. Major Courses³

(total 45-52 cr)

HSC	200	Consumer Health	3 cr
HSC	300	Community Health	3 cr
HSC	310	Health Care Systems	3 cr
HSC	322	Nutrition for Health Professions	3 cr
HSC	330	Human Behavior and Health Education	3 cr
HSC	351	Methods and Curriculum in School and Community Health Education	3 cr
HSC	360	Health Problems of Minority Groups	3 cr

³See footnotes, page 249.

HSC	390	Epidemiology	3 cr
HSC	440	Research Analysis and Evaluation in Health ¹⁹	3 cr
HSC	450	Administration and Supervision of Health Institutions and Organizations	3 cr
HSC	490	Human Sexuality	3 cr
HSC	491	Alcohol and Drug Abuse Problems	3 cr
HSC	497	Field Work in Community Health	8 or 15 cr
HSC	498	Seminar in Community Health	1 cr

B. Directed Electives

(total 39 cr)

BIO	170	Basic Microbiology	3 cr
BIO	212	General Anatomy and Physiology I	4 cr
BIO	213	General Anatomy and Physiology II	4 cr
BIO	302	Basic Genetics	3 cr
HSC	460	Biostatistics ²⁰	3 cr
PSY	210	Developmental Psychology	3 cr

SOC	251	Minority Groups I	3 cr
		OR	
SOC	252	Minority Groups II	

PLUS:

BIO	140	Biosphere ⁶	3 cr
CHEM	164	College Chemistry ⁶	4 cr
SOC	120	Marriage and the Family ⁶	3 cr
PSY	110	General Psychology ⁶	3 cr

PLUS: A minimum of **3 credits** in *Spanish*⁶ 3 cr

NOTE: A certification program for School Health Education has been submitted for approval. Students interested in this certification program should contact The Office of Field Laboratory Experiences.

MULTIDISCIPLINARY PROGRAMS

ENVIRONMENTAL STUDIES PROGRAM

COORDINATOR — E. Hutter

PROFESSORS — E. Hutter, C. Lee

The Environmental Studies Program offers the student a comprehensive general study of both scientific and sociological factors of importance to our environment. This material is presented in the "Core I" and "Core II" courses which the student generally takes in his or her freshman and sophomore years.

Specialization in one of a number of "tracks" during the junior and senior years allows the student to graduate with a competence in a specific field matching his or her interest and career goals. During the last two years, the student also participates in Environmental Seminars and in the Field Experience, where he or she actively works one day a week during one semester in a unit of local government, education, or industry concerned with environmental problems.

THE ENVIRONMENTAL STUDIES MAJOR

A. Required Courses (for all students in the program)

(total 35 cr)

The following Core I Curriculum:

CHEM	110	Crisis of the Environment ⁶	3 cr
PHYS	165	Energy and Earth's Natural Resources ⁶	3 cr
BIO	140	The Biosphere ⁶	3 cr
GEO	110	Cultural Geography ⁶	3 cr

PLUS: The following Core II Curriculum:

ECON	230	Economics of the Environment ⁶	3 cr
POL	222	Politics of the Environment ⁶	3 cr
PSY	360	Environmental Psychology ⁶	3 cr
SOC	406	Social and Environmental Change ⁶	3 cr

PLUS: The following courses:

ENV	301	Field Experience	3 cr
ENV	380	Junior Seminar	2 cr
ENV	381	Junior Seminar	2 cr
ENV	480	Senior Seminar	2 cr
ENV	481	Senior Seminar	2 cr

B. Courses for selected Fields of Concentration

1. Track 1-Biology

a) Major Courses

(total 24 cr)

BIO	163	General Biology I	4 cr
BIO	164	General Biology II	4 cr

BIO	323	Conservation	4 cr
OR			
BIO	403	General Ecology	

PLUS: 12 credits from the following courses to be selected by advisement (8 credits if both BIO 323 and BIO 403 are taken) 8 or 12 cr

BIO	261	General Botany	
BIO	230	Field Biology	
BIO	352	Economic Botany	
BIO	302	Basic Genetics	
BIO	320	General Bacteriology	
BIO	219	Lower Invertebrate Zoology	
BIO	220	Higher Invertebrate Zoology	

NOTE: Alternative Biology Courses by advisement

b) Directed Electives

(total 26 cr)

MATH	230	Statistics for Science Majors	3 cr
CHEM	160	General Chemistry I	4 cr
CHEM	161	General Chemistry II	4 cr
CHEM	308	Organic Chemistry I	4 cr
<i>A Math Course by advisement</i>			3 cr
PHYS	260	General Physics I ²¹	4 cr
PHYS	261	General Physics II ²²	4 cr

2) Track 2-Chemistry

a) Major Courses

(total 29 cr)

CHEM	160	General Chemistry I	4 cr
CHEM	161	General Chemistry II	4 cr
CHEM	308	Organic Chemistry I	4 cr
CHEM	309	Organic Chemistry II	5 cr
CHEM	322	Environmental Chemistry	4 cr

PLUS: 8 credits from the

following group: 8 cr

CHEM	327	Biochemistry I	
CHEM	311	Physical Chemistry I	
CHEM	201	Analytical Chemistry	
CHEM	499	Independent Study	

b) Directed Electives

(total 24 cr)

MATH	160	Calculus I	4 cr
MATH	161	Calculus II	4 cr
PHYS	260	General Physics I	4 cr
PHYS	261	General Physics II	4 cr

PLUS: Biology Lab Courses (not Liberal Studies) by advisement 8 cr

3) Track 3-Earth Sciences

a) Major Courses

(total 28 cr)

PHYS	120	Physical Geology	4 cr
PHYS	220	Historical Geology	4 cr
PHYS	225	Mineralogy and Petrology	4 cr
PHYS	315	Introduction to Oceanography	3 cr
PHYS	327	Geomorphology	3 cr
PHYS	420	Structural and Field Geology	4 cr

PLUS: 6 credits from the following group: 6 cr

PHYS	150	Meteorology	
PHYS	320	Paleontology	
PHYS	325	Environmental Geology	
PHYS	329	Stratigraphy and Sedimentation	
GEO	233	World Resources and Industries	

NOTE: Alternative Major Courses by advisement

b) Directed Electives

(total 22-24 cr)

CHEM	160	General Chemistry I	4 cr
CHEM	161	General Chemistry II	4 cr

PLUS:

MATH	160	Calculus I	4 cr
MATH	161	Calculus II	4 cr
PHYS	260	General Physics I	4 cr
PHYS	261	General Physics II	4 cr

OR

MATH	(By advisement)	6-8 cr
PHYS 255	College Physics I	4 cr
PHYS 256	College Physics II	4 cr

4) Track 4-Physics

a) Major Courses

(total 31 cr)

PHYS 260	General Physics I	4 cr
PHYS 261	General Physics II	4 cr
PHYS 300	Mechanics	4 cr
PHYS 301	Thermal Physics	3 cr
PHYS 302	Electricity and Magnetism	4 cr
PHYS 410	Electronics I	4 cr

PLUS: 8 credits from the following group: 8 cr

PHYS 304	Optics
PHYS 411	Electronics II
PHYS 403	Modern Physics I
PHYS 404	Modern Physics II

NOTE: Alternative Major courses by advisement

b) Directed Electives

(total 23 cr)

CHEM 160	General Chemistry I	4 cr
CHEM 161	General Chemistry II	4 cr
MATH 160	Calculus I	4 cr
MATH 161	Calculus II	4 cr
MATH 201	Calculus III	4 cr
MATH 322	Differential Equations	3 cr

5) Track 5-Applied Mathematics

a) Major Courses

(total 27 cr)

MATH 160	Calculus I	4 cr
MATH 161	Calculus II	4 cr
MATH 201	Calculus III	4 cr
MATH 202	Linear Algebra	3 cr
MATH 301	Modern Algebra	3 cr
MATH 322	Differential Equations	3 cr

PLUS: 6 credits from the following group: 6 cr

MATH 231	Applied Statistics
MATH 380	Mathematical Models and Applications
MATH 430	Probabilistic Modeling

b) Directed Electives

(total 21 cr)

CS 140	Computer Science I	3 cr
CS 240	Computer Science II	3 cr
CS 362	Elements of Computer Simulation	3 cr
PHYS 260	General Physics I	4 cr
PHYS 261	General Physics II	4 cr

PLUS: A BIOLOGY or CHEMISTRY Lab Science (not Liberal Studies) by advisement 4 cr

6) Track 6-Business

a) Major Courses

(total 24 cr)

BUS 201	Introduction to Management	3 cr
BUS 231	Legal Implications of the Environmental Crisis	3 cr
ACCT 211	Principles of Accounting I	3 cr
ACCT 212	Principles of Accounting II	3 cr
BUS 301	Personnel Management	3 cr
BUS 310	Marketing	3 cr
BUS 320	Corporation Finance	3 cr
BUS 340	Labor and Management in the American Economy	3 cr

b) Directed Electives

(total 17 cr)

A Lab Science Course	(not Liberal Studies) by advisement	8 cr
MATH 130	Elementary Statistics I	3 cr

PLUS: 6 credits of *Behavioral Science* (other than business) by advisement. 6 cr

7) Track 7-Economics

a) Major Courses

(total 24 cr)

ECON 201	Macroeconomic Principles	3 cr
ECON 202	Microeconomic Principles	3 cr
ECON 210	Economic Statistics I	3 cr
ECON 211	Economic Statistics II	3 cr
ECON 321	Public Finance	3 cr

ECON	350	Urban and Welfare Economics	3 cr
ECON	360	Theory of Economic Growth and Development	3 cr
ECON	370	International Economics	3 cr

b) Directed Electives

(total 20 cr)

MATH	155	Intermediate Algebra for College Students ²³	3 cr
BUS	231	Legal Implications of the Environmental Crisis	3 cr

PLUS: 6 credits of Behavioral Science (other than economics) by advisement 6 cr

PLUS: A Lab Science (not Liberal Studies) by advisement 8 cr

8) Track 8-Geography

a) Major Courses

(total 24 cr)

GEO	120	Man's Physical World	3 cr
GEO	130	Human Ecology	3 cr
GEO	233	World Resources and Industries	3 cr
GEO	230	Population and Settlement Geograpy	3 cr

PLUS: 12 credits from the following: 12 cr

GEO	365	Man, Nature and Wildlife	
GEO	400	Urban Geography	
GEO	405	The Geography of Oceans	
GEO	350	Geo-economics of Energy and Man	
GEO	310	Trade and Transportation Geography	
GEO	360	Geo-economics of Food and Hunger	

b) Directed Electives

(total 23 cr)

MATH	130	Elementary Statistics I	3 cr
BIO	230	Field Biology	3 cr
BIO	323	Conservation	4 cr

BIO	403	General Ecology	4 cr
BIO	335	Field Botany	3 cr
PHYS	315	Introduction to Oceanography	3 cr
PHYS	325	Environmental Geology	3 cr

9) Track 9-Political Science

a) Major Courses

(total 30 cr)

POL	221	State and Local Government	3 cr
POL	232	Politics of the Third World	3 cr
POL	240	International Relations	3 cr
POL	250	Public Administration: The Administrative Process	3 cr
POL	254	Urban and Suburban Politics	3 cr

PLUS: 15 credits from the following: 15 cr

POL	130	Black Politics in America	
POL	230	Comparative Politics: Development and Modernization	
POL	310	Political Socialization	
POL	326	Constitutional Law: Civil Liberties and Civil Rights	
POL	341	International Organizations and Multinational Corporations	
POL	354	Urban Policies and Problems	
POL	403	Capitalism and Socialism	

b) Directed Electives

(total 11 cr)

Lab Science Courses (not Liberal Studies) by advisement 8 cr			
MATH	130	Elementary Statistics I	3 cr

10) Track 10-Psychology

a) Major Courses

(total 25 cr)

PSY	110	General Psychology	3 cr
PSY	202	Experimental	

		Psychology I:	
		Applied Statistics	4 cr
PSY	420	Perception	3 cr
PSY	430	Social Psychology	3 cr
PSY	440	Human Factors	3 cr

PLUS: 9 credits from the following courses: 9 cr

PSY	130	Psychology in Business and Industry	
PSY	210	Developmental Psychology	
PSY	350	Theories of Personality	
PSY	351	Abnormal Psychology	
PSY	380	Field Methods in Psychology	

b) Directed Electives

(total 17 cr)

MATH	130	Elementary Statistics I	3 cr
PLUS:		Lab Science Courses (not Liberal Studies) by advisement	8 cr

PLUS: 6 cr of *Behavioral Sciences* (other than Psychology) by advisement 6 cr

11) *Track 11-Sociology*

a) Major Courses

(total 27 cr)

SOC	110	Principles of Sociology	3 cr
SOC	130	Social Anthropology	3 cr
SOC	253	Elementary Sociological Statistics	3 cr

SOC	402	Modern Sociological Theory	3 cr
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OR

SOC	423	History of Social Theory	
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PLUS: 15 credits from the following group: 15 cr

SOC	250	Urban Sociology	
SOC	251	Minority Groups I	
SOC	252	Minority Groups II	
SOC	300	Social Welfare Policy	

SOC	322	Bureaucratic Organization	
SOC	325	The Sociology of Social Movements	
SOC	327	Collective Behavior	
SOC	354	Social Stratification	
SOC	365	Social Deviance	
SOC	409	Social Problems and Social Policy	
SOC	421	The Sociology of Revolution	

b) Directed Electives

(total 17 cr)

MATH	155	Intermediate Algebra for College Students ²³	3 cr
PLUS:		Behavioral Science Courses (not sociology) by advisement	6 cr
PLUS:		Lab Science Courses (not Liberal Studies) by advisement	8 cr

12) *Track 12-Liberal Arts*

a) Major Courses

(total 32 cr)

The major courses required for a Liberal Arts Concentration in Environmental Studies are to be selected as described on page 104 under "The Liberal Studies Program." The distribution of courses selected must meet the requirements described there. However, only 32 credits in major courses are required for the Environmental Studies Liberal Arts Track.

b) Directed Electives

(total 18 cr)

MATH	130	Elementary Statistics I	3 cr
MATH	155	Intermediate Algebra for College Students ²³	3 cr
PLUS:		Lab Science Courses (not Liberal Studies) by advisement	12 cr

LIBERAL STUDIES PROGRAM

The Liberal Studies Major provides the

student with an opportunity to develop under the most careful advisement, a program of studies more varied in scope and more individually tailored to his needs and interests than would be normally found within a more traditional major. The student will concentrate in one of the four Divisions of the College of Arts and Sciences — Fine and Performing Arts, Humanities, Mathematics and Natural Sciences, and Social and Behavioral Sciences. Within the Division selected, the student will be able to take his course work in several areas, rather than in just one. Thus a broader, more varied education will be provided to him. In close consultation with a faculty advisor, the student will develop a unifying rationale for the courses selected. Therefore if, for example, a student opts to choose as his unifying rationale a specialization in American Studies, he might take courses in the English, History and Philosophy faculties. Many other possibilities are, of course, also open.

In exceptional cases, the student may wish to pursue an interdivisional or inter-college major. Such majors must be approved by the appropriate deans or associate deans, as well as by the faculty advisor.

Various possibilities exist for students to take Computer Science courses as a core: for instance, a student may develop a concentration of computer science courses within the Liberal Studies Major by electing business courses from the division of Administrative Studies, by electing methodology or content courses from the Division of Social and Behavioral Sciences or by adding additional mathematics courses to the Computer Science core.

THE LIBERAL STUDIES MAJOR

Major Courses

(total 48 cr)

Students will select a concentration in one of the following Divisions:

- Fine and Performing Arts
- Humanities
- Mathematics and Natural Sciences
- Social and Behavioral Sciences
- Inter-Divisional or Inter-College Option

Students will select upper level courses with their advisor's approval, from at least three disciplines within the division of their concentration.

A total of 48 credits at, or above, the 200 level from one division determines the area of concentration in liberal arts, except in those disciplines in which courses at the 100 level may be required as prerequisites to the 200 level courses, including art, biology, chemistry, economics, history, mathematics, music, physical science, political science, psychology, and sociology. In these cases, the 100 level prerequisites shall be credited toward the 48 credit major requirement.

In the case of the inter-divisional or inter-college option, special permission must be granted by the appropriate deans or associate deans to vary from this pattern.

PEACE STUDIES CONCENTRATION

Peace Studies, which is the systematic study of armed conflict and of human behavior, institutions and ideologies which contribute to the perpetuation of armed conflict, may be selected as an area of concentration in the Liberal Studies Major.

Courses in the Peace Science Program are listed in various faculties of the Division of Social and Behavioral Sciences and are offered by the faculties throughout the college.

In order to develop a Peace Science Concentration, it is necessary to select thirty credits from the following courses:

ECON	320	History of Economic Theory	3 cr
ECON	370	International Economics	3 cr
ECON	390	Comparative Economic Systems	3 cr
GEO	300	Geopolitics	3 cr
POL	240	International Relations	3 cr
POL	241	War and Peace	3 cr
POL	310	Political Socialization	3 cr
POL	345	United States Foreign Policy	3 cr
POL	440	Problems in International Relations	3 cr
PSY	120	Psychology of Social Issues	3 cr
PSY	430	Social Psychology	3 cr
SOC	130	Social Anthropology	3 cr
SOC	353	Human Types (A	

		Comparative Study on Cultures)	3 cr
SOC	439	Basic Peace Studies	3 cr
SOC	440	Alternatives to Armed Force and Aggression	3 cr

HUMANITIES HONORS COURSES

The Humanities Division offers a special series of Honors courses taught by different members of the Division under the direction of the Associate Dean. These courses are designed to challenge to the fullest the student's capacities through structured multidisciplinary seminars and intensive individual study. The courses' general aims are 1) to promote intellectual excellence within a common scholarly community; 2) to foster an awareness of various disciplines and their unity; 3) to offer opportunities for self-direction of future goals.

A student may concentrate in any major in the Humanities Division (fulfilling individual faculty requirements) and at the same time participate in the courses by fulfilling the minimum requirements outlined below. Admission into and continuance is determined by a Humanities Honors Advisory Committee, whose individual members will also act as academic advisors to students involved.

Honors Courses

(total 15 cr)

HUM	199	Humanities Honors Seminar I: Representations of Humanity Past and Present	3 cr
HUM	200	Humanities Honors Seminar II: Representations of Humanity Past and Present	3 cr

PLUS: One of the following courses:

3 cr

HUM	300	Humanities Honors Colloquium: 20th Century and its Discontents
HUM	301	Humanities Honors Colloquium: The Enlightenment:

		Origins of Modern Consciousness
HUM	302	Humanities Honors Colloquium: Medieval and Renaissance Culture
HUM	303	Humanities Honors Colloquium: Classical Tradition and Christian Civilization

PLUS:

HUM	449	Humanities Honors Research: Independent Study	3 cr
HUM	1499	Humanities Honors Thesis: Independent Study	3 cr

COOPERATIVE EDUCATION

Donald E. Roy, Director

The William Paterson College Cooperative Education Program has been established on a trimester basis. Co-op work periods can be arranged during any of the following periods:

Fall.....September-January

Spring.....January-June

SummerJune-September

A student can complete as many as three co-op work periods during four years at WPC by alternating periods of full-time school with periods of full-time work. This is accomplished by utilizing the summer months for either course work or co-op assignments.

In most major fields, students participating in the co-op program will be able to earn credits in addition to their salaried positions. For example, a student will receive the following:

3 credits for the first work experience,

6 credits for the second work experience,

6 credits for the third work experience.

Three credit hours of the last work experience may be applied toward credit requirements in a student's chosen major. Learning contracts between the student and faculty advisor arrange the co-op assignment to fulfill educational goals.

Majors Offering Cooperative Education

This program is offered as an option to all students through the following academic areas:

- Accounting
- Biology
- Business Administration
- Chemistry
- Communications
- Economics
- Environmental Studies
- Geography
- Mathematics
- Political Science
- Public Safety
- Sociology-Anthropology
- Urban Studies

In addition, of course, students whose major is undeclared may seek a co-op placement, an experience often helpful in the selection of a major. Too, where majors are not yet identified with Co-operative Education, a placement may serve as elective credit.

The dynamics of cooperative education benefit the entire community. Cooperative Education is a partnership among the student, the employer and the college.

PART III: THE COURSES

ACCOUNTING

ACCT 211 Principles of Accounting I **3 credits**

Introductory course in the fundamental principles of accounting, the theory of debit and credit, account classification, preparation of working papers, adjusting, closing, reversing entries, and preparation of basic financial statements.

ACCT 212 Principles of Accounting II **3 credits**

(Prerequisite: ACCT 211)

Introduces accounting for partnerships and corporations as well as basic concepts of cost accounting, taxation, and the use of accounting as a decision-making tool for management.

ACCT 311 Intermediate Accounting I **3 credits**

(Prerequisite: ACCT 212)

Review of basic financial statements and in-depth study of accounting principles advanced by responsible professional organizations in the classification, presentation, and disclosures of assets required for external users of financial information.

ACCT 312 Intermediate Accounting II **3 credits**

(Prerequisite: ACCT 311)

In-depth study of accounting principles advanced by responsible professional organizations in the classification, presentation, and disclosures of liabilities and stockholders' equity required for external users of financial information.

ACCT 340 Cost Accounting I **3 credits**

(Prerequisite: ACCT 312)

Cost accounting and its contribution to management, the cost accounting cycle, and cost data accumulation, job order costing, process cost accounting procedures, materials, labor and overhead costing and control, costing of by-products, co-products, and joint products.

ACCT 341 Cost Accounting II **3 credits**

(Prerequisite: ACCT 340)

Planning of profits, costs, and sales, budgeting and forecasting, standard cost systems, techniques of accumulating, reporting, and evaluating costs and variances, break even and cost volume profit analysis.

ACCT 370 Auditing **3 credits**

(Prerequisite: ACCT 312)

Review of the procedures and practices used in auditing the financial transactions and statements of an organization. Internal control, test of transactions and audit standards employed are discussed and demonstrated by actually doing an audit of a practice company

ACCT 410 Taxation I (same as BUS 410) **3 credits**

(Prerequisite: ACCT 212)

A study of the U.S. Internal Revenue Code with emphasis on income taxation of individuals. Practice is provided in the preparation of tax returns and solution of case problems. The course concentrates on the problems of U.S. Individual Income Tax, but taxation of corporations and partnerships will also be examined.

ACCT 411 Taxation II (same as BUS 411) **3 credits**

(Prerequisite: ACCT 410)

A study of the U.S. Internal Revenue Code with emphasis on the taxation of corporations, partnerships, estates, and trusts. Federal payroll, gift, and estate and New Jersey taxes will also be covered.

ACCT 420 Advanced Accounting **3 credits**

(Prerequisite: ACCT 312)

In-depth study of accounting principles used in accounting for parent and subsidiary companies, partnerships and other specialized areas of accounting.

ACCT 430 CPA Review Course 3 credits

(Prerequisite: ACCT 370)

This course provides intensive review and analysis of basic and advanced concepts, skills, and principles necessary for students who are intending to apply for a certifying examination for practice of the accounting profession.

ACCT 499 Independent Study 1-3 credits

As approved and to be arranged.

ART

ART 110 Modern Art I 3 credits

A study of the history of art from the French Revolution through the 19th Century and the various movements of the 20th Century. Emphasis is placed upon the development of major schools and styles as well as significant individual contributions.

ART 111 Modern Art II 3 credits

A study of American and European painting, architecture and sculpture from about 1910 through about 1960.

ART 120 Ideas in Contemporary Art 3 credits

Problems and ideas in the fields of painting, sculpture, cinema, architecture, and interior and commercial design of our time. Investigation to achieve a meaningful and profitable understanding of visual languages.

ART 130 World Art 3 credits

This course will familiarize the student with selected major periods in art history and specific major monuments and artists. The aim is to introduce the student to the arts of painting, sculpture, and architecture and to develop his visual sensitivity as well as to make the vocabulary of art history meaningful.

CLOSED TO ART MAJORS.

ART 140 History of Film 3 credits

Screening of important films in the history of this vital art form. Lectures and discussions lead to an understanding of film as a visual medium.

ART 160 Graphic Delineation 3 credits

Basic course in graphic and instrument drawing techniques. Lettering and graphic presentation, free hand and instrument studies in ortho-graphic, isometric, and perspective projections. Outside assignments are required.

ART 161 Drawing 3 credits

Study of the fundamentals of drawing. Work with various media to develop a firm basis for the comprehension and the visual articulation of form. Outside assignments are required.

ART 162 Two-D Design 3 credits

Studies in the ordering and structuring of two-dimensional space. The student conceives and executes problems which involve the elements of art and their varied interrelationships to develop aesthetic judgments and sensitivity. Outside assignments are required.

ART 163 Color 3 credits

Intensive study of the action and interaction of color through practice as opposed to theory. A sequence of interrelated problems develops an awareness of the relativity of color, as well as a process of thought about color and, by extension, about art and its perception. Outside assignments are required.

ART 164 Three-D Design 3 credits

Design as it applies to three-dimensional forms. Skill in handling tools and various sculptural materials is stressed, as is the creative approach to the student's projects. Outside assignments are required.

ART 232 Modern European Film 3 credits

(Prerequisite: ART 140)

A survey of the major European works and their aesthetic, social and technical importance from World War II to the present.

ART 233 History of Non-Fiction Film 3 credits

The history of the so-called "documentary" cinema. The material to be covered includes cinema from the political,

historical, social, governmental, industrial and propaganda fields. The course covers the development of documentary and factual film from its beginnings in the early twentieth century to the present. The course emphasizes non-fiction film from Western Europe, Russia, Great Britain and America.

ART 234 Art and Film 3 credits

The study of film as a non-narrative medium emphasizing the history of the independent film. Recent films and video tapes produced by artists will serve as a basis for production of films by the students in class.

ART 291 Western Art I 3 credits

Art of the prehistoric period to 1400. A study of the development of painting, sculpture, and architecture of the prehistoric, Egyptian, Mesopotamian, Aegean, Greek, Early Christian, Byzantine, Romanesque, and Gothic civilizations.

ART 292 Western Art II 3 credits

Art from 1400 to 1850. A study of the development of Western European painting, sculpture, and architecture of the Renaissance, Baroque, Rococo, Neoclassic, and Romantic periods.

ART 301 Life Drawing 3 credits

(Prerequisites: ART 160, 162, 163)

An introduction to the graphic design professions, providing students with a basic working knowledge of techniques and vocabulary. The course will survey employment opportunities, typography, illustration techniques, mechanical production, use of color for reproduction, professional skills such as portfolio presentation and comp preparation, basic lettering and type rendering. It will inform students of current trends in graphic design and will make them more critically aware of their visual environment.

ART 311 Graphic Design I — Visual Communication 3 credits

An introduction to the graphic design professions, providing students with a basic working knowledge of techniques and vocabulary. The course will survey employment opportunities, typography,

illustration techniques, mechanical production, use of color for reproduction, professional skills such as portfolio presentation and comp preparation, basic lettering and type rendering. It will inform students of current trends in graphic design and will make them more critically aware of their visual environment.

ART 312 Graphic Design II — Typography and Illustration 3 credits

(Prerequisite: ART 311)

An intermediate course for students considering a career in graphic design and/or illustration. Projects will involve the integration of typography and illustration within a communicative design. Students will be encouraged to proceed from detailed analysis of a problem to an inventive solution and, finally, to an effective visual presentation of the solution.

ART 321 Painting I — Methods and Materials 3 credits

(Prerequisites: ART 162 and 163)

The principles of painting, through a series of visual problems. The student gains understanding of pictorial space through control of drawing, value, and color. Introduction to a variety of technical processes and media. Outside assignments required.

ART 322 Painting II 3 credits

(Prerequisite: ART 321)

Continuation of Painting I with increased emphasis on the student's selection of problems and media. Outside assignments required.

ART 323 Watercolor 3 credits

(Prerequisites: ART 161 and 163)

Exploration in all water color media and techniques, with emphasis upon the development of imaginative design and an individual point of view. Outside assignments required.

ART 333 Textile Design I 3 credits

(Prerequisites: ART 162, 163)

The origination and application of design to

textiles by various techniques including block print, silk screen, batik. Outside assignments required.

ART 334 Textile Design II **3 credits**

(Prerequisite: ART 333)

Advanced problems in techniques. Use of various dyes and dye paste formulations. Combination of techniques with a given problem. Printing on a variety of materials: silk, linen, wool, velvet, plastics. Outside assignments required.

ART 335 Weaving I **3 credits**

(Prerequisites: ART 162, 163)

Fundamentals and techniques of weaving. Warping and dressing the loom, sample weaving. Experimental approaches to design, color and texture in fabric construction. Outside assignments required.

ART 336 Weaving II **3 credits**

(Prerequisite: ART 335)

Advanced techniques in weaving and pattern drafting. Related problems in design. Further experience in sample warps and yardage weaving. Outside assignments required.

ART 337 Jewelry I **3 credits**

(Prerequisite: ART 331)

The design and making of jewelry in sterling silver by construction and casting techniques. Also problems in lapidary. Outside assignments required.

ART 339 Metalsmithing I **3 credits**

(Prerequisite: ART 331)

The design and execution of flatware and hollow ware in copper and sterling silver sheet metals by the hand forming techniques of forging, raising and stretching. Also problems in enameling. Outside assignments required.

ART 341 Sculpture I **3 credits**

(Prerequisites: ART 160, 164)

An introductory course in sculpture using a variety of materials and techniques to create three-dimensional forms. Outside assignments required.

ART 342 Sculpture II — Methods and Materials **3 credits**

(Prerequisite: ART 341)

Exploratory course in three-dimensional materials and techniques, including welding, casting, plastics, and other fabrication techniques. Outside assignments required.

ART 351 Printmaking I **3 credits**

(Prerequisites: ART 161, 162)

Introduction to printmaking involving relief, intaglio and silk screen techniques. Outside assignments required.

ART 352 Printmaking II **3 credits**

(Prerequisite: ART 351)

Continued development of student selected techniques. Advanced intaglio, relief, silk screen and experimental techniques. Emphasis on color printing as well as black and white. Other options available dependent upon background and interest. Outside assignments required.

ART 361 Ceramics I **3 credits**

(Prerequisites: ART 161, 164)

Physical properties of clay and methods of hand construction and wheel throwing. Complete processing through firing and glazing. Outside assignments required.

ART 362 Ceramics II **3 credits**

(Prerequisite: ART 361)

Further study of creative possibilities of clay as a plastic medium. Emphasis on the development of the individual craftsman. Outside assignments required.

ART 363 Furniture Design **3 credits**

(Prerequisites: ART 160, 164)

The investigation of advanced wood studio techniques, involving laminating of solid wood and vacuum forming of plywood. The utilization of various types of wood finishes to enhance materials of completed objects. Economy and utility of design will be stressed. The total concept of planning and execution of projects will be evaluated in determining the level of professionalism.

ART 371 Photography I 3 credits

(Prerequisite: ART 162)

Experiences in the use of the camera, basic developing of black and white film printing, enlarging, toning, and experimental photography as a means of visual expression. Major emphasis on design. Outside assignments required.

ART 372 Photography II 3 credits

(Prerequisite: ART 371)

Each student develops his own area of interest through consultation with the instructor. This course will allow the student to pursue one or more aspects of photography in depth. Outside assignments required.

ART 390 Neo-classical Art 3 credits

A study of Neo-classic and Romantic painting, sculpture and architecture from 1750-1850; concentrating on countermovements, innovation and nostalgia for the past, reform, overthrow and revival. The concepts of Romanticism and Neo-classicism are shown to be shifting, constantly changing, sometimes similar, sometimes antithetical, but always alternative and simultaneous expressions of thoughts and feelings in a time of revolution and questioning.

ART 392 Ancient Art 3 credits

(Prerequisite: one course in art history)

Ancient art traces the development of the arts of sculpture, painting, and architecture from the prehistoric period of the cave paintings, through the Near Eastern, Egyptian and Greek civilizations, culminating in Roman Art. Emphasis will be placed on an understanding of structure and materials, as well as on the influence of ancient art on western civilization. Throughout the course, the cultural context of art will be stressed; the basic theme of the course will be the close relationship in ancient culture between the arts, religion and the state.

ART 393 Medieval Art 3 credits

(Prerequisite: one course in art history)

Medieval art is a study of the history of art from the Conversion of Constantine in the Fourth Century A.D. to the first stages of

Renaissance style in Europe. Emphasis is placed on the religious character of the Middle Ages with special reference to Christian dogma and themes.

ART 394 Northern Renaissance Art 3 credits

(Prerequisite: one course in art history)

A study of the art of Germany, the Netherlands, France and Spain from approximately 1325 to 1550. Northern Renaissance Art is an examination of the various arts of painting, sculpture and the burgeoning graphic media. Among the artists studied are Jan van Eyck, Rogier van der Weyden, Jean Fouquet, Albrecht Durer, Michael Pacher, Hieronymus Bosch, and Pieter Bruegel. Topics given special consideration include the development of narrative, printing and graphic processes, vernacular uses of traditional symbolism and themes, the persistence of medieval patterns of thought and vision, and the social content—with particular reference to the Protestant Reformation—of Northern Renaissance Art.

ART 395 Renaissance Art (Italian) 3 credits

(Prerequisite: one course in art history)

A study of a period of great rebirth in the visual arts in Italy from 1300 to 1600 and of its significance to our cultural heritage.

ART 396 Baroque and Rococo 3 credits

(Prerequisite: one course in art history)

A study of painting, sculpture, and architecture in Western Europe from 1600 to 1800. The Baroque and Rococo styles are studied in relation to their cultural backgrounds with particular emphasis on the individual styles of such masters as Bernini, Rubens, Rembrandt, Poussin, and Watteau.

ART 398 Oriental Art 3 credits

(Prerequisite: one course in art history)

Survey of the arts of India, China, and Japan presented in their historical and cultural contexts.

ART 401 Drawing Studio — Special Problems in Drawing 3 credits

(Prerequisites: ART 161 and permission of instructor)

Problems of the student's own choice in various media, to develop fluency in drawing. Outside assignments required.

ART 411 Graphic Design Workshop 3 credits

(Prerequisites: ART 311, 312)

This course introduces the student to the experimental investigation between design and technology in the area of graphic arts. It will provide the student with the technical training of the printer and the art-oriented training of the graphic designer; thus, introducing the student to printing processes, typefaces, platemaking, copy camera, photo-serigraphy, and paper stocks. The course is designed to prepare the student to meet the needs of a growing area of communication through the print and the printing process as a potential area of specialization.

ART 416 Introduction to Art Therapy 3 credits

(Prerequisite: ART 161)

The course will be a survey in the basic conceptual foundations of Art Therapy. Emphasis will be placed on the major theories of various practitioners such as Naumburg and Kramer, and there will be discussion of various schools including present-day developments such as Gestalt Art Therapy. The distinctions between diagnostic and therapeutic applications of art therapy will be drawn.

ART 421 Painting III 3 credits

Prerequisite: ART 322)

Creative exploration of more advanced problems in painting, placing particular emphasis upon the development of individual visual ideas. Outside assignments required.

ART 422 Painting IV 3 credits

(Prerequisite: ART 421)

Continuation of Painting III. Outside assignments required.

ART 423 Painting Studio 3 credits

(Prerequisites: ART 422 and permission of instructor)

An experimental course. Problems of student's own choice. Possible combination of various media and techniques. Outside assignments required.

ART 431 Jewelry and Metalsmithing 3 credits

(Prerequisites: ART 337, 339)

Concentration in jewelry or metalsmithing design and fabrication using a variety of techniques which may include construction, casting, forging, raising and stretching. Also lapidary and enameling problems may be selected. Outside assignments required.

ART 432 Metal Studio — Special Problems 3 credits

(Prerequisite: ART 431)

Continuation of ART 431. The refinement of acquired knowledge in design and execution and the exploration of additional ideas and techniques through selected advanced problems. Outside assignments required.

ART 433 Textile Studio — Special Problems in Textiles and/or Weaving 3 credits

(Prerequisites: ART 334 and/or ART 336)

Advanced techniques and specialization in weaving or textile design. Techniques previously introduced may be elected for further development. Outside assignments required.

ART 434 Handweaving and Tapestry 3 credits

(Open Elective)

Introduction to off loom weaving including tapestry and pile weave techniques. Fundamentals of basketry, involving coiling, twining and plaiting. Outside assignments required.

ART 438 Jewelry II 3 credits

(Prerequisite: ART 337)

Continuation of ART 337. Outside assignments required.

ART 441 Sculpture III 3 credits

(Prerequisite: ART 342)

Advanced work in three-dimensional media and techniques. Emphasis upon individual problems and their solutions. Outside assignments required.

ART 442 Sculpture IV 3 credits

(Prerequisite: ART 441)

Continuation of Sculpture III. Outside assignments required.

ART 443 Sculpture Studio 3 credits

(Prerequisites: ART 442 and permission of instructor)

An experimental course. Problems of student's own choice. Possible combination of various media and techniques. Outside assignments required.

ART 451 Printmaking III — Lithography and Silk Screen 3 credits

(Prerequisite: ART 351)

Investigation of and experiments in lithographic and silkscreen techniques and processes. Outside assignments required.

ART 452 Printmaking Studio — Advanced Technique 3 credits

(Prerequisite: ART 451 and one additional print course)

Individual procedures of the students in concepts and techniques presented in previous courses. Outside assignments required.

ART 461 Ceramics III 3 credits

(Prerequisite: ART 362)

Advanced projects in ceramics involving personal and experimental ideas and techniques. Outside assignments required.

ART 462 Ceramics IV 3 credits

(Prerequisite: ART 461)

The student works with a series of problems of his own choice. Outside assignments required.

ART 480 Studio Seminar 3 credits

The course covers selected topics in the areas of Art History, Art Criticism, Art Technology and Art Theory as they pertain to a professional career in Studio Art.

ART 490 Islamic Art and Architecture 3 credits

(Prerequisite: 3 credits in art history)

An in-depth study of painting, decorative arts and architecture within their cultural context in countries whose art forms were influenced by the Muslim religion. The emphasis will be on Iran. Other countries will include Egypt, Spain, Turkey, Iraq, Syria and India, from the founding of Islam in the 7th century through the 17th century.

ART 491 The Age of Neo-Classicism 3 credits

(Prerequisite: 3 credits in art history)

A study of Neo-classic and Romantic painting, sculpture and architecture from 1750 to 1850; concentrating on France, Germany, Italy, Scandinavia and England. Movements and countermovements, innovation and nostalgia for the past, reform, overthrow and revival; the concepts of Romanticism and Neo-classicism are shown to be shifting, constantly changing, sometimes similar, sometimes antithetical, but always alternative and simultaneous expressions of thoughts and feelings in a time of revolution and questioning.

ART 493 Masterpieces of the Illuminated Manuscript 3 credits

(Prerequisite: ART 295)

A study of manuscript illumination from the fifth century through humanist Italian sixteenth century manuscripts. Special emphasis will be given to the relationship of patrons, such as Charlemagne, to their manuscripts as well as to some outstanding cycles of illustrations in the texts of the Apocalypse, Virgil, Dante, and Boccaccio.

ART 494 Byzantine Art 3 credits

A study of architecture, painting and sculpture in the Eastern Mediterranean, the Balkans, and Italy from 315 AD to 1453. Byzantine art will be interpreted as:
1) the preserver of the Greco-Roman heritage; 2) the expression of a Christian imperial state and 3) a model for Western European art during the Middle Age.

ART 499 Independent Study
1-3 credits

As approved and to be arranged.

BILINGUAL EDUCATION

**TBED 301 Theories and Practices of
Bilingual Education and
E.S.L. 3 credits**

The course examines the history of bilingual education in the U.S.A. It also discusses the basic philosophy throughout the analysis of various known models of bilingual programs, definitions and common terminology, problems and values of bilingualism.

**TBED 302 Children of the Caribbean
Cultures 3 credits**

The course will examine linguistic, cultural and social factors affecting the psychological and intellectual development of Hispanic children of the Caribbean as they develop in their natural, physical and social environment.

**TBED 303 Minority Children in the
Urban Setting 3 credits**

This course will examine the problems faced by Hispanic children in the Urban Setting in American schools as a result of linguistic, cultural, social and psychological factors.

**TBED 304 Curriculum Development and
Evaluation in Bilingual
Education 3 credits**

Analysis of available materials for bilingual programs and their attitudes toward minority language and cultures. The course will also point out the racism and sexism in the illustrations, within the context, projection of life styles, interrelations, self-image and others. The development of instructional modules in the students' area of interest in both languages will be a major course component. Emphasis in the creation of teacher-made audio-visual materials will take place in this course, as well as demonstration classes utilizing their innovative materials. All these will seek developmental continuity by utilizing a sequential skills developmental approach.

TBED 309 Applied Linguistics 3 credits

(Prerequisite: Functionally Bilingual: Spanish/English)

This course will familiarize the students with the basic techniques of linguistic analysis with particular emphasis on the applications of these to Spanish and English contrastive analysis.

**TBED 318 Field Experience (Spanish)
3 credits**

(Prerequisites: Three Courses in the program and advanced application with the Office of Field Laboratory Experiences)

A field experience in classes in Spanish in a bilingual school program approved by the Bilingual Office of the College, one full day per week for the semester, arranged by the college. The student serves as observer and teacher's aide. Emphasis is on participation in a bilingual teaching situation. In addition, practicum seminars are conducted in alternate weeks.

**TBED 319 Field Experience (English)
3 credits**

(Prerequisites: Three courses in the program and advanced application with the Office of Field Laboratory Experiences)

A field experience in classes in English in a bilingual school program approved by the Bilingual Office of the College, one full day per week for the semester, arranged by the college. The student serves as observer and teacher's aide. Emphasis is on participation in a bilingual teaching situation. In addition, practicum seminars are conducted in alternate weeks.

**TBED 400 Teaching Reading in Spanish
to Spanish Children 3 credits**

(Prerequisite: Knowledge of the four communication skills in Spanish)

The main thrust of the course will be geared toward the development of new approaches that will enhance a desire to read as a pleasurable task or skill. This will be attained by associating the immediate environment to the written symbols so as to awaken the potentialities of the learner.

**TBED 402 Methodology of Second
Language Teaching 3 credits**

(To be taught in English)

This course emphasizes the language techniques and methods necessary to teach a second language to students. Attention will be given to the audio-lingual approach and how it differs from the formalistic reading-writing methods.

An introduction of grammatical drills and exercises using teacher constructed work sheets and charts. Vocabulary building methods, listening for comprehension techniques, fundamentals of speaking, reading skills, writing skills, cultural understanding and testing will be researched, studied, discussed and demonstrated.

BIOLOGY

BIO 110 Biology of Plants and Animals-Lecture and Laboratory 3 credits

(Not open to Biology Majors)

The principles of ecology, the evolutionary history of life, the biological aspects of overpopulation and environmental pollution, the conservation ethic, and the future prospects of the human race are explored in depth.

BIO 120 Biology of Man — Lecture and Laboratory 3 credits

(Not open to Biology Majors)

Accent is placed on man's structure, function and behavior; his genetic makeup and hereditary potential; and his evolutionary history. The laboratory features the dissection of the fetal pig as an example of mammalian anatomy, as well as varied exercises in human physiology, genetics and evolution.

BIO 140 The Biosphere — Lecture Only 3 credits

(Required for Environmental Studies)

A study of the living organisms in man's surroundings in terms of today's environmental crisis. The course concerns itself with the origin, evolution and interrelationships among these organisms. The impact of man's past, present and future activities on the biosphere is considered.

BIO 163-164 General Biology I and II — Lecture and Laboratory 4 credits each

(For students intending to major in Biology)

(Prerequisite: BIO 163 is a pre or corequisite for BIO 164)

General Biology I and II provide the biology major with a background in biological principles. The similarities as well as the differences between living organisms, both plant and animal, will be discussed.

Biology I includes subcellular and cellular structure and function. Cellular respiration, photosynthesis and protein synthesis are also discussed.

Biology II is concerned with the underlying principles of whole organism structure and function. The principles of evolution and ecology are also discussed.

BIO 170 Basic Microbiology — Lecture and Laboratory 3 credits

(Required of Nursing Majors; open to others)

The structure, function, nutrition, etc. of the various groups of micro-organisms are discussed. Their relationship to environment and other organisms and their medical importance is also considered, particularly infectious disease and immunity.

BIO 200 Biotechniques — Lecture and Laboratory 4 credits

(Prerequisites: BIO 163, 164, 1 year Chemistry)

Biotechniques teaches specific laboratory skills useful in biological research, industry and teaching. These skills include: techniques in immunology; preparation of permanent slides of plant and animal tissues; use of auto analyzer; methods of chromatography and electrophoresis, as well as spectrophotometry.

BIO 210-211 Basic Anatomy and Physiology I and II — Lecture and Laboratory 3 credits each

(Prerequisites: BIO 210 is prerequisite to BIO 211. Open to all, required of Physical Education Majors)

A study of the anatomy and physiology of

the human organism showing relationships between structure and function, the integration of the various systems and maintenance of homeostasis. Skeletal, muscular, respiratory and circulatory systems are studied in the first semester. The second semester includes study of nervous, digestive, reproductive, urinary, and endocrine systems.

BIO 212-213 General Anatomy and Physiology I and II — Lecture and Laboratory
4 credits each

(Prerequisites: CHEM 160 and 161 or CHEM 164 and 165.)

(Open to all, required of Nursing Majors)

A study of the structural and functional relationships of the human body. Includes a detailed study of the individual organism. Cell functions, histology, the integumentary, skeletal, muscular, respiratory and circulatory systems are studied in the first semester. The first semester laboratory includes a dissection of the cat.

The second semester includes the nervous, endocrine, reproductive, digestive, and urinary systems. Metabolism, acid-base balance and water and electrolyte balance are also discussed in the second semester. The second semester laboratory stresses physiology.

BIO 214 Applied Anatomy and Physiology — Lecture and Laboratory
4 credits

(Required of Psychology, Speech, Pathology and Special Education Majors)

A study of human anatomy and physiology with emphasis on developing an understanding of the inter-relationships of the body systems in maintaining homeostasis in both health and disease. Emphasis will be placed on the nervous and endocrine control mechanisms, the muscular system, and the respiratory system.

BIO 219 Lower Invertebrate Zoology — Lecture and Laboratory
4 credits

(Prerequisites: BIO 163, 164)

The study of all invertebrate groups except

arthropods. Morphology, culturing, life cycles, ecology, economic importance will be considered. Each student will do a detailed study of one minor group. One or two Saturday field trips.

BIO 220 Higher Invertebrate Zoology — Lecture and Field Laboratory
4 credits

(Prerequisites: BIO 163, 164)

The study of arthropods in the field and laboratory. Morphology, culturing, life cycles, economic importance and means of control will be considered. One Saturday field trip.

BIO 230 Field Biology — Lecture and Field Laboratory
3 credits

An introduction to plants and animals of New Jersey intended to develop competence in recognition of biotic groups and an understanding of the necessity of harmonious relationships among man, plants, and animals.

BIO 261 General Botany — Lecture and Laboratory
4 credits

(Formerly BIO 161, Botany)

(Prerequisites: BIO 163, 164)

An introduction to the biology of the plant kingdom; the course treats the structural, functional, economical, ecological and evolutionary aspects of plants.

BIO 301 Animal Physiology — Lecture and Laboratory
4 credits

(Formerly General Physics)

(Prerequisite: BIO 305)

A comparative approach to the basic physiological processes of animals. Emphasis will be on the functional modifications of the basic systems animals develop in order to cope with their environment.

BIO 302 Basic Genetics — Lecture Only
3 credits

(Prerequisite: 6 credits of Biology; Elementary Statistics strongly advised)

(Required of all Nursing Majors)

A lecture course on the basic tenets of genetics; a study of the organization,

function and regulation of hereditary material with emphasis on human and medical applications.

BIO 303 Plant Anatomy — Lecture and Laboratory 4 credits

(Prerequisite: BIO 261 or permission)

A comparative study of the relationship of phylogeny, ontogeny, and ecology to the anatomical and morphological variations among vascular plants.

BIO 304 Plant Physiology — Lecture and Laboratory 4 credits

(Prerequisite: BIO 261)

Fundamental principles of plant physiology with emphasis on growth and development of vascular plants, including studies of experimental embryogenesis, seed germination, growth regulators, plant water relations, juvenility, flowering, dormancy, and environmental physiology.

BIO 305 Cell Physiology — Lecture and Laboratory 4 credits

(Formerly Cell Biology)

(Prerequisites: BIO 163, 164, and 1 year of Chemistry)

A study of the physiological and biochemical processes that regulate and maintain cell function. Cellular and subcellular structures will be discussed, but only as they are applicable to cell function. Various experimental techniques will be employed to demonstrate the principles of cell function.

BIO 306 General Genetics — Lecture and Laboratory 4 credits

(Prerequisites: BIO 163, 164)

A study of the organization, function, regulation and transfer of hereditary material in viruses, bacteria, and eukaryotes, including man.

BIO 312 Advanced Anatomy and Physiology — Lecture and Laboratory 4 credits

(Prerequisites: BIO 212, 213 or permission)

(Open to all; required of Nursing Majors)

An introduction to advanced studies on Human Physiology. Stress is placed on

cardiology, circulation, acid-base balance, water balance and disorders of the nervous system. The laboratory involves physiological tests and measurements of human subjects.

BIO 320 General Bacteriology — Lecture and Laboratory 4 credits

(Prerequisites: BIO 163, 164, 1 year chemistry)

This course is concerned with the structure and function of micro-organisms with emphasis on bacteria and viruses. The cultivation of micro-organisms, microbial physiology, microbial genetics, microbial ecology, immunology and virology are discussed.

BIO 323 Conservation — Lecture and Laboratory 4 credits

(For Biology majors)

(Prerequisites: BIO 163, 164)

A critical survey of soil, water, biota and the air, as basic resources to be conserved and utilized to yield maximum benefit to man. Emphasis is placed on principles and issues involved in the management of these resources.

BIO 335 Field Botany — Lecture and Laboratory 3 credits

(Prerequisites: BIO 163, 164 or permission)

This course is a survey of the native seed plants commonly found in the New Jersey environs. Emphasis will be of field work, identification of specimens in the laboratory and the field and the taxonomic relationship of different species.

BIO 350 Animal Behavior — Lecture Only 3 credits

(Prerequisites: BIO 163, 164, or permission)

This course is a survey of animal behavior, the physiological aspects thereof, as well as the ecological and adaptive implications.

BIO 351 Field Animal Behavior — Lecture, Laboratory and Field 3 credits

(Prerequisites: BIO 350 or PSY 460 and permission of instructor)

(Biology and Psychology Majors)

A course to provide a concrete understanding of aspects of animal behavior in laboratory and field. Students will design and carry out self-selected research projects under faculty guidance, to explore problems in animal behavior at the behavioral, physiological and genetic level.

BIO 352 Economic Botany — Lecture Only 3 credits

(Prerequisite: BIO 261 or Permission of Instructor)

This course deals with the relationship between crops and human populations from both historical and biological perspectives. Essential features of plant structure and development, as well as geographical and economical aspects are considered.

BIO 380 Biology of Sex — Lecture Only 3 credits

(Prerequisite: One term-Biology)

(Open to majors and non-majors)

This course involves a detailed study of the biological aspects of sex, with special emphasis on human sexual structure and function, both normal and abnormal.

BIO 382 Heredity, Environment and Society — Lecture Only 3 credits

(Elective for non-science majors)

The roles of heredity and environment in individual development will be described. The role of modern genetic research and techniques with respect to the future of mankind will be investigated.

BIO 402 Limnology — Lecture and Field Laboratory 4 credits

(Prerequisites: BIO 403 or Permission of Instructor)

A critical examination of the ecology of fresh water biota with special attention to the physical features of the environment; surveys are made of streams, ponds, and lakes in the environs, and three all-day field trips are included.

BIO 403 General Ecology — Lecture and Laboratory 4 credits

(Prerequisite: BIO 261 or Permission of Instructor)

A study of the basic structural and functional aspects of our ecosystem, including detailed study at the community, population, and organismal levels.

BIO 404 Parasitology — Lecture and Laboratory 4 credits

(Prerequisites: BIO 219-220 or Permission of Instructor)

Basic principles of parasitic life with emphasis on relationships between hosts and parasites. Selected living specimens will be used.

BIO 405 Comparative Vertebrate Anatomy — Lecture and Laboratory 4 credits

(Prerequisites: BIO 163, 164)

This course includes the phylogenetic history of each chordate system, including the integument, skeleton, muscles, digestive tract, circulatory, excretory, respiratory, nervous and reproductive systems; laboratory includes dissection of representative chordates (lamprey, shark, necturus, cat).

BIO 406 Protozoology — Lecture and Laboratory 3 credits

(Prerequisite: BIO 305 or Permission of Instructor)

A study of the morphology, physiology, taxonomy and ecology of protozoans. The life history and adaptations of free living protozoans and some parasitic forms will be discussed.

BIO 407 Insect Physiology — Lecture and Laboratory 3 credits

(Prerequisite: BIO 220 or Permission of Instructor)

A study of the physiology of the systems of insects with special emphasis on the relationship between the physiology of insect organs and their behavior in their environment.

BIO 408 Fungi of the Woodlands — Field Identification and Lecture 3 credits

(Prerequisites: BIO 163-164 or Permission of Instructor)

The role of fungi in nature will be explored

primarily through field collecting trips. The Myxomycophyta, Ascomycetes, and Basidiomycetes of the area will be identified, and their ecological importance stressed.

BIO 412 Virology — Lecture Only
3 credits

(Prerequisite: BIO 320 or Permission of Instructor)

Bacterial, plant and animal viruses with special reference to morphology, physical-chemical properties, multiplication and host responses are the topics of this course.

BIO 413 Environmental Microbiology
3 credits

(Prerequisite: Microbiology or Permission of Instructor)

A study of the beneficial and the harmful relationships of microorganisms with plants, animals, and man. Special attention will be paid to the microorganisms of water, soil, food and air.

BIO 414 Mycology — Lecture and Laboratory
4 credits

(Prerequisite: BIO 261 or Permission of Instructor)

A study of the fungi with emphasis on the microscopic species as they are found in different ecological environments; their relationship to each other will be considered as well as those to the plant and animal kingdom as a whole.

BIO 415 Systematics of Lower Plants — Lecture and Field Laboratory
3 credits

(Formerly Phycology)

(Prerequisite: BIO 261 or Permission of Instructor)

The structure, function and life-cycles of algae, mosses and liverworts are the topics of this course; taxonomic and ecological aspects of this group of plants will be stressed.

BIO 418 Systematics of Higher Plants — Lecture and Field Laboratory
3 credits

(Formerly Plant Association)

(Prerequisite: BIO 261 or Permission of Instructor)

This course deals with the lifecycles of members of the Embryophyta, with emphasis on phylogeny and classification — field work with native species of ferns and seedplants is part of this course.

BIO 421 Embryology
4 credits

(Prerequisite: BIO 305 or Permission of Instructor)

Primarily a study of vertebrate embryology, although a brief comparison is made with the development of the starfish. The frog, the chick and pig development is studied in laboratory. Living frog and chick material is studied.

BIO 422 Human Physiology — Lecture Only
3 credits

(Prerequisites: BIO 212-213 or Permission of Instructor)

This course is designed to develop a clear understanding of the human body. Emphasis will be placed on major principles and processes of human circulatory, nervous and endocrine physiology; the functioning of human body systems and their interrelationships will receive the main focus of attention.

BIO 425 Molecular Genetics — Lecture Only
3 credits

(Prerequisite: BIO 305)

This is a non-laboratory course designed to study the nature, function and control mechanisms of the hereditary material at the molecular level; microbial research data will be stressed.

BIO 428 Endocrinology — Lecture and Laboratory
4 credits

The endocrine organs as functional regulators and integrators on all levels of biological organization. Emphasis is placed upon the endocrine mechanisms in mammals, including man. Laboratory in experimental endocrinology.

BIO 432 Research Methods in Biology — Lecture Only
3 credits

(Prerequisites: two years of Biology and Junior Standing)

This course is designed to acquaint advanced undergraduates and graduate students with methodological, philosophical design, and practical aspects of biological research.

BIO 435 Vertebrate Zoology — Lecture Only 3 credits

(Prerequisites: BIO 163-164)

(Formerly Coldblooded Vertebrates and Warmblooded Vertebrates)

This course covers the phylum Chordata. An outline of their organization and diversity based on an evolutionary perspective will be given. Topics will include paleontology, functional morphology classification and natural history. Areas of current research will be explored.

BIO 444 Evolution — Lecture Only 3 credits

(Prerequisite: two years of Biology)

A study of the history of evolutionary theory, heredity, populations, classification, speciation, adaptation, evidence for organic evolution, vertebrate and human evolution, and the problem of human population.

BIO 445 Evolution Laboratory 1 credit

(Prerequisite: two years of Biology; may be taken at the same time as BIO 444, or subsequently. NOTE: BIO444 may be taken alone.)

Laboratory will include work with fossils, skeletal materials, variation, museum trips and one or two Saturday field trips to several fossil locations.

BIO 475 Population Genetics — Lecture and Laboratory 4 credits

(Prerequisites: BIO 306 and 403)

The study of population dynamics with emphasis on measurements of population change and factors affecting the change.

BIO 480 Biology Seminar 1 credit

(Restricted to Biology Majors)

A discussion group of biology majors and biology faculty, featuring an in-depth study of a selected topic. Each student will select one aspect of the topic, do a library

research of related literature, and prepare a written report of his findings which will be delivered orally to the group as a basis for discussion.

BIO 482 Science and Social Responsibility — Lecture and Seminar 3 credits

(Elective for science and non-science majors)

A lecture-discussion, seminar course concerned with man's responsibility for the social economic and political ramifications of his inventions and discoveries.

BIO 484 Scanning Electron Microscopy — Lecture and Laboratory 4 credits

(Prerequisites: BIO 200, Junior standing)

This course is to provide an understanding of the theory and functioning of the SEM. Each student is required to carry out a project.

BIO 485 Transmission Electron Microscopy — Lecture and Laboratory 4 credits

(Prerequisite: BIO 305 or Permission of Instructor)

An introduction to the principles and practice of transmission electron microscopy, including theory, electron optics, specimen preparation, operation of electron microscope, photography, related instruments and techniques.

BIO 497 Readings in Biology 1-3 credits

(See also courses listed under Bio-Psychology.)

A course to permit a student to study a particular field of biology under the personal direction of a faculty member.

BIO 498 Field Experience in Biology 1-3 credits

A pass/fail course to permit a student to become involved in a supervised educational experience outside of the regular departmental program.

BIO 499 Independent Study 1-3 credits

Individual research projects under the direction of a faculty member. May be substituted for Biology Seminar.

BIO-PSYCHOLOGY

BIPY 474 Introduction to Neuroscience **3 credits**

Basic functional anatomy, chemistry, electrical activity and histology of the central nervous system and selected receptor or motor systems. Topics include nerve cell structure and ultra-structure, physiology of nerve conduction, synaptic function, etc. The objective is a three dimensional understanding of the brain, including physiological measures of attention, memory, habituation, etc. Lecture and laboratory procedures.

BIPY 475 Behavior Genetics — **Laboratory Included 4 credits**

(Prerequisite: Permission of Instructor)

This course is an introduction to the concept of gene-environment interaction as a determiner of both animal and human behavior. Students will be exposed to various methods of investigation, such as genetic crosses, heritability estimates, and selective breeding, and the information which has been obtained using these methods. Consideration will be given to both experimental and correlational types of investigations.

BIPY 476 Developmental Biopsychology **3 credits**

This course is designed to introduce students to the scope and methods of a psychobiological approach to development. As such, it will stress the phylogenetic and ontogenetic processes influencing individuals, groups, species and phyla, with special emphasis on human groups. Phenomena will be set within the lifespan context. Additional emphasis will be on: 1) genex environmental interaction, influencing behavior, pre-peri and post-natal; 2) post-natal development of sensory and learning systems and social behavior.

BLACK STUDIES

BLST 100 Introduction to Black Studies **3 credits**

An introductory course in Black Studies which familiarizes the student with the diasporic and interdisciplinary nature of the Black presence in the world. The

student surveys concepts such as Negritude, Ujamaa, Black capitalism, Black survival, etc.

BLST 101 Afro-Caribbean Dance **3 credits**

(also PE 116)

Preparation of the body through conditioning exercises and dance sequence to perform ethnic dance forms from Africa and the Caribbean. Examination of African French and Spanish sources. Students may choose a field trip to a professional performance, or more capable students may examine the dance forms more closely by composing a dance sequence using the ethnic materials from class. During the spring semester, performance in Dance Concert may be arranged with the instructor.

BLST 102 Contemporary Afro-American Dance **3 credits**

Dance—choreographed movement to musical sound—as a means of understanding the contemporary Afro-American experience.

BLST 105 Linguistic Adaptation of Today's Minorities **3 credits**

This course will investigate what has variously been known as Black English and the Spanish-English introduced by Puerto Rican residents of urban areas in an attempt to identify ways of bridging the gap with traditional English.

BLST 110 Afro-American History to 1865 **3 credits**

This course begins with the African heritage to the end of slavery. After survey of the African background, a study will be made of the history of people of African descent in their New World environment. The role of Afro-Americans in the development of the U.S. to the Civil War will be examined.

BLST 111 Afro-American History Since 1865 **3 credits**

Beginning with an examination of the period of Reconstruction, the course will continue through the various survival tactics of Afro-Americans and the effects of governmental and societal action or inaction on their lives up to the present.

BLST 112 The Black Child 3 credits

A review of the literature and studies on children of Afro-American descent. Students will be assigned to work as volunteers tutoring elementary school children.

BLST 120 Afro-American Music 3 credits

The music of Africa and Black people in the United States has become interwoven with that of America. The purpose of this course is to present a brief analysis of such musical forms as Black Spirituals, Jazz, and the utilization of such African forms of expression as the drums, the guitar, the bass fiddle and other means of musical expression. Interpretive analysis will also be presented.

BLST 130 Black Politics 3 credits

An examination and analysis of the political power structure and relationships in the Black community. Emphasis is on those factors which make Black communities relatively powerless and how this state of powerlessness can be ameliorated. Study will also concentrate on Black Political interaction in New Jersey.

BLST 131 Afro-American Social Thought 3 credits

Concentration is on the significant trends of social thought of Black Americans in the 19th century regarding the nature of being, circumstances and fortunes of Black people. Range of views begin with David Walker & Martin Delaney and concludes with Malcolm X, Stokely Carmichael and Bayard Rustin.

BLST 201 The Civilizations of Ancient Africa 3 credits

Egypt, Kush, Ghana, Mali, Songhai, Benin and Ife are among the civilizations of ancient Africa which are discussed. Particular concern is given the controversy surrounding the African origin of all civilizations.

BLST 202 African Family Life 3 credits

This course traces and examines the origin and development of the African family system, marriage, sex and child rearing. Focus is also on the primacy of the family in African life.

BLST 203 Colonialism in Africa 3 credits

Describes the exploration, conquest and colonization of Africa during the 19th and 20th centuries. Also highlights the beginning of the transformation of the African traditional society to a modern society.

BLST 204 African Cultural Systems 3 credits

This course deals with both the nature and processes of African culture. It focuses on the African being, his religion, music, art, economic and political systems.

BLST 205 Pan Africanism and the Black Experience 3 credits

An analysis of the philosophy and philosophers of Pan Africanism and the African experience in the diaspora; emphasis is on those forces that identify, unite and disunite Black people all over the world as they strive to control their destiny.

BLST 206 Elementary Swahili 3 credits

This course presents the fundamentals of Kiswahili: simple grammatical construction and forms, building of broad and commonly used vocabulary and idiomatic expressions, developing reading, writing and conversational skills with emphasis on the grammatical principles and their application to the language.

BLST 207 Blacks and the Mass Media 3 credits

(6 credits with lab or field activities)

The course examines the history and roles of Blacks in the American media.

BLST 208 Blacks and the Criminal Justice System in the U.S. 3 credits

This course analyzes the presence of racism in the formulation and implementation of the law, in the courts, penal institutions and in the police department. An effort is also made to examine the relevance of social, economic and political factors in the administration of justice.

BLST 209 Beginners Karate 3 credits

The course attempts to positively influence and guide the general behavior of our

students through and by means of martial arts. Students are introduced to the various forms of martial arts as a form of art and as a sport. By use of martial arts, the student is taught the meaning of "peace" "tranquility" "no force" "give the way" and such other principles of non-aggression.

BLST 210 Intermediate Karate 3 credits

This course is designed to develop a higher understanding of the art of Karate, to introduce the principles and philosophies related to the Martial Arts, to develop greater skill and knowledge in the combative part of Karate and self-defense, to introduce the basic skills in teaching the art of Karate and to receive a Karate rank related to ability.

BLST 211 Advanced Karate 3 credits

This section of the course refines further the Martial Arts fundamentals introduced in BLST 209 and 210.

BLST 228 The Afro-American Literary Experience I 3 credits

This course deals with the Black Experience as depicted in literature by and about Black people. The course focuses on biographies, autobiographies and fiction.

BLST 229 The Afro-American Literary Experience II 3 credits

Here the main focus is on Afro-American drama, poetry and essays.

BLST 230 Roots of Racism in the United States 3 credits

A survey of American Institutions, literature and history to trace, develop and analyze American racism. The course focuses on the American Constitution, distortion of the African background, Slavery, Reconstruction and Jim Crow Laws. Of great importance in understanding racism are: Christianity and Capitalism.

BLST 233 Introduction to the Art of Africa 3 credits

An introductory course designed to explore and examine the origin, evolution and the meaning of African Art; in addition to highlighting the forms, styles and expressions of the African Art, the course

will show the role of art in African life.

BLST 238 African Politics 3 credits

The course deals with the post-independence governmental political parties and ideological inclinations among the African states. Emphasis is on the origin and evolution of political institutions and their functions within the framework of contemporary Africa and the world in general.

BLST 239 The Black Athlete 3 credits

One of the few areas of human endeavor that Blacks have excelled in is the field of sports. This course traces and examines the socio-psychological significance of sports both in Black athletes and their communities. Also of concern in the course is the entire sports phenomenon as it relates to Black people in all spheres.

BLST 240 Afro-Caribbean History 3 credits

The course examines the history of the Caribbean starting with the discovery of the islands, colonization, slavery and evolution of a distinctly Afro-Caribbean personality and culture. The course encompasses the colonial period.

BLST 245 The Caribbean in the 20th Century 3 credits

An investigation of the local and international factors which have influenced the Caribbean states and played roles in their economic, social and political development. The influence of the U.S., England, and Cuba, among others, will be studied.

BLST 255 The Black Woman Experience 3 credits

The course examines what it is to be a Black woman in racist and sexist America. It highlights the predicament of being caught up between the Black man and the white man and the achievements of Black women.

BLST 258 Black Psychology 3 credits

This course will examine the history of Black psychology and its philosophical considerations. The myth of psychology as an objective discipline will be treated.

**BLST 260 Psychological Testing of
Minority Children 3 credits**

This course explores and analyzes the pros and cons of psychological testing of Black children in a racist society.

**BLST 265 Unity/Diversity in The Black
Community 3 credits**

A discussion of the opposing, political, religious and economic thoughts in the black community, such as community control; separation vs. integration. Within the Diversity of the Black Community, there is also the Unity of Afro-Americans which is discussed.

BLST 280 Minority Enterprises 3 credits

This course deals with the structure, patterns and problems of minority owned and/or operated enterprises in the Black and other minority communities. Emphasis on ways and means by which Black and other minority owned and operated business can be improved both quantitatively and qualitatively.

**BLST 288 Blacks and the Business World
3 credits**

The course deals with the nature and scope of managerial skills that a member of the minority must have in order to compete and be effective in the American corporate system and bureaucracy. Emphasis is on establishing and developing that type of managerial know-how which would be more applicable to minority communities as well as the larger society.

**BLST 299 Student Community Service
3 credits**

This course is designed to give the student an opportunity to coordinate his learning experience through performance in different areas which encompass aspects of practicum, education as a profession, student teaching, early childhood, secondary education and so forth. The course involves working with organized groups of inner city children in the areas of remedial teaching, basic skill development, recreational and cultural enrichment. May be repeated once for credit.

BLST 300 The Black Family 3 credits

This course is a socio-cultural and historical

introduction to the various forces that have continuously eroded the social fabric and stability of the Black Family. It offers theoretical exposition of the nature and features of the Black Family with comparative reference to the African background, and proceeds on to examine and analyze the concepts and practice of love, marriage, divorce, illegitimacy, homosexuality and other various aspects in the Black Family.

BLST 301 Contemporary Africa 3 credits

Deals with social, economic, political and technological aspects of contemporary Africa: the organization and management of these socio-economic and political forces determines both internal and external policies relative to the problem of nation building.

BLST 302 The Black Church 3 credits

Examines and analyzes the social and historical development of the Black Church in the Black Community. The course attempts to show the role of the Church in the survival and struggles of Black people...there is also an attempt to show how the role of the church has been adjusted to changing circumstances and environment.

BLST 307 Intermediate Swahili 3 credits

The emphasis of the course will be primarily on conversation and basic grammar. The class will meet formally twice a week and, in addition, the student will work with tapes in the language lab. In time, the writing system will be introduced, but during the first year the approach will be concentrated on Phonology, Morphology, and Vocabulary.

**BLST 308 Police and the Black
Community 3 credits**

This course is designed to investigate and describe the causes and nature of the conflicts existing between the roles and duties of the police force on one hand and the interests and rights of the Black Community on the other. There will be an emphasis on inviting people presently involved in Police and/or Community Relations.

**BLST 310 Recent Interpretations in
Afro-American Studies 3 credits**

This course is a presentation of the differing points of view on current topics in Afro-American Studies and Black Scholarship.

BLST 311 African Literature 3 credits

Examines contemporary African writing, essays, drama, poetry and/or fiction; attempt is also made to explore the themes common in most African writing and the problems of cultural identification.

BLST 312 Blacks and the Performing Arts 6 credits

Deals with the Black Experience in arts: dance, theater, singing, drama and such other entertainment occupations. The course attempts to introduce the student to the contributions of Blacks in the arts, the obstacles and fulfillment. Also the course attempts to provide basic skills in these areas.

BLST 313 Afro-American Theatre 3 credits

An exploration of the black experience through the medium of theatre.

**BLST 314 Afro-American Theatre
Production 6 credits**

The objective of this course is to stage a full-scale production at the end of the semester in which it is given. Obviously some theatrical background is required.

**BLST 315 Afro-American Background for
Teachers 3 credits**

This course is a general course for prospective teachers which will introduce various current and historical precepts for analysis and will enable the student to identify the roots of the Black American Experience. The student will visit areas of cultural interest to Afro-Americans in the Metropolitan-New York-New Jersey Area. Through the discipline of his interest, the student will identify the role of the Afro-American.

BLST 320 Career Guidance 3 credits

The course is designed to enable students

to be more easily placed into the world of work and to prepare them in the area of public relations; expose them to the job market, interview techniques, resume preparation, and various ways of self preparation and presentation.

**BLST 330 Images of the Black Man in
Early American Art, 1600-1800 3 credits**

An investigation of the depiction of black men in American art from its beginning and the influence these early images have on the contemporary perceptions of blacks will be covered.

**BLST 331 The Philosophical Problems of
Slavery During the Era of the
American Revolution, 1770-1800 3 credits**

The persistent paradox that this country became free while actively supporting slavery is investigated.

**BLST 340 Creative Teaching Through
Performing Arts 3 credits**

A study of the performing arts as a teaching/learning device in the classroom. Exploration of the performing arts as a means to develop the child's self expression and awareness of reality. Investigation of performing arts as a curriculum tool for the teacher.

**BLST 410 Problems and Practices of the
Ethnic Markets 3 credits**

After an introduction to principles of marketing and consumerism, the course surveys consumer items common among Black people and the existing range of advertisement plus how the existing market can be expanded and improved for the overall community development.

BLST 412 Fundamentals of Social Work 3 credits

This course prepares the student who plans to go to a graduate school of Social Work. Emphasis is on the basics of social work and how these basics relate to the social problems of the inner city areas.

**BLST 420 Economic Structure of the
Black Community 3 credits**

The course starts with an introduction to

economics, defines the ghetto or the inner city and examines the economic relations between the ghetto and the rest of the economy. The ghetto is likened to a colony because there is no economic community control. That economic control is exercised from outside.

BLST 480 Research Methods and the Minorities 3 credits

This course introduces students to methodological approaches in research in the minority communities.

BLST 499 Independent Study 1-3 credits

As approved and to be arranged.

BUSINESS

BUS 120 Basic Legal Principles 3 credits

An introductory law course for students in all curricula. This course will examine the practical functioning of the legal system in American Society. A study will be made of the court system in the U.S. and selected basic legal concepts. Open to all students.

BUS 201 Introduction to Management 3 credits

(Prerequisite: ECON 201)

This course introduces basic principles, policies, problems, and successful methods of business organization and management. Emphasis is placed on management's ability to analyze, plan, coordinate, and control the varied activities of production, personnel, finance, and marketing. Social responsibility and environmental factors affecting business policy and operation are also examined.

BUS 231 Legal Implications of the Environmental Crisis 3 credits

(Prerequisite: ECON 230)

This course is designed to probe the legal problems involved in the movement to preserve our environment. Present protection laws are thoroughly analyzed and their effectiveness is evaluated.

BUS 251 Business Law I 3 credits

A survey of the American judicial system as the preserver and enforcer of the legal rights of businessmen. This survey will be

followed by extensive analysis of the legal principles involved in contracts.

BUS 252 Business Law II 3 credits

(Prerequisite: BUS 251)

The presentation and analysis of the legal principles pertaining to the areas of commercial law under the Uniform Commercial Code. Case problems are analyzed in class in order to develop the student's ability to clearly define legal problems and to point out probable solutions.

BUS 253 Business Law III — Business Organization 3 credits

(Prerequisite: BUS 251)

An analysis of the legal framework of business organizations would be undertaken in this course. Among the topics covered would be the corporate structure, the law of partnership, securities regulation and bankruptcy. The structure of the corporation will be stressed.

BUS 301 Personnel Management 3 credits

(Prerequisites: BUS 201, 310)

The efficiency with which any organization can be operated will depend to a considerable measure upon how effectively its personnel can be managed and utilized. Every manager, therefore, must be able to work effectively with people and to resolve satisfactorily the many and varied problems that the management of these people may entail. Effective Personnel Management also requires the development of a program that will permit employees to be selected and trained for those jobs that are most appropriate to their developed abilities.

BUS 302 Materials Management 3 credits

(Prerequisites: BUS 201, 301, ECON 201, 202, 210)

The principles of materials management are surveyed with emphasis on industrial procurement—its organization and its analytical methods and techniques. The successful operation of any modern industrial manufacturing concern depends in large measure on procuring the proper

equipment, materials, and supplies of the right qualities, in the right quantities, at the right prices, and at the right time.

BUS 303 Manpower Management
3 credits

(Prerequisites: BUS 201, 301, ECON 201, 202)

Manpower management is the study of how labor as a resource is utilized in the production of goods and service in an organized society. Because we are faced with the dynamics of managing in a changing world, we must be alert to significant trends such as those effecting the composition of our labor forces and economic well-being of our population.

In developing and utilizing human resources, each step in employment can make important contribution toward meaningful team work. Recruitment, selection, induction, training, appraisal, constructive discipline and job change—each of these at various levels play an important part in motivation and in the most productive manpower utilization. Where special needs exist, as among professional or for minority groups, the employment and training program must be adapted to those needs.

BUS 305 Management and the External Environment
3 credits

(Prerequisites: BUS 201, 301, 231, ECON 201 or 202)

This course is concerned with systematic analysis of environments conceived as dynamic systems of interrelated components. It identifies and forecasts trends in the environment of special concern to corporate management. It also confronts the difficult problems of political, economic, and social analysis in a business setting. Particular emphasis is upon problems of evaluating national economic policy, special interest groups, government regulation, consumerism and ecology.

BUS 306 Organizational Behavior
3 credits

(Prerequisites: BUS 201, 301)

Contemporary organizations are complex and dynamic. The management of such organizations must be adaptive and based

on situational reality. This course deals with the methodology of attaining this reality. Organization design must accommodate not only present requirements but also change, growth, and future planning. The student of organizations must have the ability to deal with rapid change; he must be able to analyze and solve real world situations based on his knowledge of the theoretical foundations of organization philosophy, concepts and processes.

BUS 307 Organizational Decision Making
3 credits

(Prerequisites: BUS 201, 301, ECON 201 or 202, MATH 160, 161)

(Open to Seniors Only)

This course focuses on the integration and application of both the quantitative and qualitative aspects, concepts and tools of managerial action necessary to the evaluation and selection of alternatives in the administrative decision making process.

BUS 309 International Management
3 credits

(Prerequisites: BUS 201, 301, ECON 201, 202)

This course presents a framework for the analysis of international management problems. The course defines the nature of the international, multinational and transnational company, examines the evolution of these types of enterprises, and develops a model of a multinational firm in a dynamic, global setting. It provides a bridge among the disciplines of economics, sociology, political science and international management.

BUS 310 Marketing
3 credits

(Prerequisites: ECON 201, 202, BUS 201)

Major phase of study includes the technique for solving business problems, the development of marketing policies, and the sale of consumer and industrial products. Various marketing decisions are examined with respect to product-planning, channel of distribution, promotion activity, selling and sales management, pricing and international marketing.

BUS 311 Money and Banking 3 credits

(Same as ECON 310)

(Prerequisites: ECON 201, 202)

An analysis of the nature of money, credit and the banking system of the United States. Topics include the various functions of money, the history of banking in this country, the operation of commercial banks, the Federal Reserve System and the monetary instruments, survey of monetary and income theories, monetary policy as a stabilizing tool and international monetary system.

BUS 314 Advertising 3 credits

(Prerequisites: BUS 310, ACCT 211, 212)

This course discusses the dynamic role played by advertising in the American economy. It involves the study of basic advertising methods and media. The course examines the function of the corporate advertising department in both the manufacturing and retailing firms as well as the advertising agency.

BUS 320 Corporation Finance 3 credits

(Prerequisites: ECON 201, 202, ACCT 211, 212)

Offers a study of the financial principles and practices involved in the reorganization, administration, and dissolution of private business corporations. Deals with the acquisition and efficient use of the funds required by the business firm.

BUS 340 Labor and Management in the American Economy 3 credits

(Same as ECON 340)

(Prerequisites: ECON 201, 202)

A study of the labor and management problem through theoretical, empirical and institutional approaches. Topics will include the history of labor movement in the United States, functions of labor markets, wage theory, concepts of the labor force, public legislation on labor and management relations, collective bargaining, unions' impact on wages, inflation and unemployment, manpower policy and investment in human capital.

BUS 342 Retail Marketing: Merchandise Management 3 credits

(Prerequisites: BUS 310, ACCT 211, 212)

This course emphasizes the dynamic role played by retailing in the American economy. The problem of marketing consumer goods and services and the complexities involved in operation of various types of stores are analyzed. The topics included are: buying and merchandizing, inventory controls, budgeting controls, pricing, management and location of stores, etc. The strategies of forecasting, planning, organizing and controlling the retail operations are also considered.

BUS 410 Taxation I 3 credits

(Same as ACCT 410)

(Prerequisites: ACCT 211, 212)

A study of the U.S. Internal Revenue Code with emphasis on income taxation of individuals. Practice is provided in the preparation of tax returns and solution of case problems. The course concentrates on the problems of U.S. Individual Income Tax, but taxation of corporations and partnerships will also be examined.

BUS 411 Taxation II 3 credits

(Same as ACCT 411)

(Prerequisite: BUS 410)

A study of the U.S. Internal Revenue Code with emphasis on the taxation of corporations, partnerships, estates, and trusts. Federal payroll, gift and estate and New Jersey taxes will also be covered.

BUS 420 Managerial Economics 3 credits

(Same as ECON 410)

(Prerequisites: ECON 201, 202, ECON 210, 211)

The application of economic analysis to the solution of individual business problems. Among the primary areas covered are demand forecasting, cost and profit analysis, and capital budgeting.

BUS 421 Real Estate I 3 credits

(Prerequisites: BUS 251, 252, ECON 201)

This course involves a detailed study of the principles and practices of real estate. It

includes ownership, contracts, deeds, conveyances, mortgages, and titles to realty. Methods of financing the real estate business, and the role of the real estate broker are emphasized. The role of real estate in the economy is also examined.

BUS 422 Real Estate II 3 credits

(Prerequisite: BUS 421)

This course involves mainly a study of the law of real estate. Topics to be covered in detail include real estate brokerage, the real estate broker and the law, rights of lien, taxes, leases and property insurance and management, land subdividing and developing, city planning and zoning, housing legislation and home ownership. Condominiums, cooperatives and other real estate will be distinguished.

BUS 430 Product Planning and Management 3 credits

(Prerequisites: BUS 310, 320)

This course emphasizes the importance of product planning and development of new products in the growth and survival of business organization in a dynamic economy. It focuses on the decision process involved in the management of products through their life cycle from exploration to deletion. Particular emphasis is placed on the product development, the management of new product strategies, and the planning and management of the entire product mix in the multiproduct organization. Specific topics would include identification and screening of new product opportunities, segmenting the product market and the role of product manager.

BUS 435 Principles of Investment 3 credits

(Prerequisites: BUS 310, 320, ECON 211)

This course emphasizes a disciplined application of financial analysis to the valuation and selection for investment of corporate securities. While the viewpoint is primarily that of the investor, the criteria are also applicable to the making of financial decisions within the business firm.

BUS 450 Small Business Management 3 credits

(Prerequisites: BUS 310, ACCT 211, 212)

A senior level seminar course in the practical aspects of designing and operating a small business firm, covering such topics as: the nature of small business; organizing and financing the new business; establishing policies, purchasing and pricing problems; expense and inventory control; records and record systems; franchising; governmental regulations and assistance; and sources of information for specialized fields. Urban and inner-city minority group and poverty problems will also be highlighted where appropriate.

BUS 451 Manufacturing Management 3 credits

(Prerequisites: BUS 310, 320)

The purpose of a course in manufacturing and operations management is to provide the student with an insight into how production is brought about. The course attempts to portray the conditions under which production takes place and the part managers and workers play in effecting production.

BUS 460 Business Strategy and Policy 3 credits

(Prerequisites: BUS 310, 320)

A case study approach to business decision-making that integrates the functional and organizational disciplines. The course examines, in depth, a series of complex industrial situations to determine in each instance the strategy and policies a firm should follow for its long-run survival.

BUS 465 Marketing Research 3 credits

(Prerequisites: BUS 310, 320, ECON 211, ACCT 212)

This course considers marketing research as a tool of marketing management emphasizing the role of research in planning, organizing and controlling marketing activities. Various analytical tools for marketing research are examined and their application to practical marketing problems are illustrated.

BUS 470 An Introduction to Operations Research 3 credits

(Prerequisite: ECON 211)

This course examines the structure of decision problems from the view-point of an integrated theory of decisions. Within this framework, a logical, rational approach is blended together with the scientific methodology of operations research. Among the topics to be covered are introduction to linear programming, introduction to mathematical programming, introduction to inventory theory, and introduction to statistical decision theory.

BUS 499 Independent Study 1-3 credits

As approved and to be arranged. Presupposes some demonstrated proficiency in the discipline or area in which the student plans to do the independent study.

CHEMISTRY

All of the following courses include a laboratory unless otherwise specified:

**CHEM 110 Crisis of the Environment —
Lecture Only 3 credits**

Considers issues, means, and ethics of uncontrolled utilization of chemicals. No laboratory.

**CHEM 159 Introductory Chemistry —
Lecture Only 3 credits**

This course is an introduction to the concepts, principles and terminology of chemistry. It is designed primarily for students who have little or no background in the fundamentals of chemistry, who wish to learn the basics of chemistry or who wish to prepare to meet the requirements of CHEM 160. *This is not a Liberal Studies Course.*

**CHEM 160-161 General Chemistry I and II
— Lecture and Lab 4 credits each**

Considers the electronic structure of atoms, molecular structure and chemical bonding, the states of matter, solutions, reaction rates and chemical equilibrium, ionic equilibria. Acid-base, electrochemistry and coordination compounds. The laboratories must be taken concurrently.

**CHEM 164 College Chemistry — Lecture
and Lab 4 credits**

Introduces concepts of atomic and molecular structure and reactivity, rates and equilibria, and organic chemistry. This course is part of a terminal sequence with Organic Biochemistry (CHEM 165).

**CHEM 165 Organic Biochemistry —
Lecture and Lab 4 credits**

(Prerequisite: CHEM 164)

Introduces concepts of organic chemistry and biochemistry, and emphasizes metabolism and its control in the context of physiological chemistry. This is a terminal course.

**CHEM 201 Analytical Chemistry —
Lecture and Lab 5 credits**

(Prerequisite: CHEM 161)

Introduces the theory and methods of quantitative analytical chemistry with emphasis on chemical equilibrium and on practical laboratory experience.

**CHEM 202 Instrumental Analysis —
Lecture and Lab 4 credits**

(Prerequisite: CHEM 201)

Introduces the theory and methods for applying physical principles to analytical problems.

**CHEM 308-309 Organic Chemistry I and II
— Lecture and Lab**

I = 4 credits

II = 5 credits

(for CHEM majors)

II = 4 credits

(for BIO majors)

(Prerequisite: CHEM 161, must be taken in sequence)

Studies the chemistry of carbon compounds including preparative methods and reaction mechanisms. Emphasizes structural analysis by physical and spectroscopic methods.

**CHEM 311-312 Physical Chemistry I and II
— Lecture and Lab**

I = 4 credits

II = 5 credits

(Prerequisites: MATH 160, 161;
Corequisites: PHYS 160, 161)

Includes chemical thermodynamics, behavior of gases, phase rule, reaction kinetics, electrochemistry and introductory quantum mechanics.

**CHEM 320 Inorganic Chemistry —
Lecture and Lab 4 credits**

(Prerequisite: CHEM 161)

Systematic study of the elements and their compounds with special reference to their location in the periodic table.

**CHEM 321 Advanced Inorganic
Chemistry — Lecture Only 3 credits**

(Prerequisite: CHEM 320 or permission of the instructor)

Coordination chemistry, kinetics and mechanisms of inorganic reactions and organometallic chemistry. No Laboratory.

**CHEM 322 Environmental Chemistry —
Lecture and Lab 4 credits**

(Corequisite: CHEM 309)

Considers the composition and dynamics of the environment, the reactions that take place and the impact of chemical technology.

**CHEM 327 Biochemistry I — Lecture and
Lab 4 credits**

(Corequisite: CHEM 309)

Elected by chemistry and biology majors; considers the properties of metabolites, macromolecules, and polyelectrolytes, and the metabolic processes occurring in living organisms.

**CHEM 328 Biochemistry II — Lecture
Only 3 credits**

(Prerequisite: CHEM 327)

Elected by chemistry and biology majors. Elaborates on topics discussed in CHEM 327, with emphasis on macromolecular structures such as mitochondrial and photosynthetic membranes, multienzyme complexes, and the mechanisms of replication, transcription, and translation. No laboratory.

**CHEM 401 Analytical Instrumentation —
Lecture and Lab 4 credits**

(Prerequisites: CHEM 202, 309 and 312)

Advanced applications of the methods of instrumental analysis to specialized problems.

**CHEM 403 Quantum Chemistry —
Lecture Only 3 credits**

(Prerequisite: CHEM 312)

Provides the theoretical basis for understanding the electronic structure of molecules. No laboratory.

**CHEM 421 Advanced Organic Chemistry
— Lecture Only 3 credits**

(Prerequisite: CHEM 309; Corequisite: CHEM 312)

Advanced study of organic chemistry with deliberate emphasis on reaction mechanisms, principles of electronic theory and its application to an understanding of organic mechanism. No laboratory.

**CHEM 423 Chemistry of Natural Products
— Lecture and Lab 4 credits**

(Prerequisite: CHEM 309)

Describes the major classes of natural products of plant origin and the theory of biogenesis. Discusses methods of identification and structural elucidation of natural products.

**CHEM 426 Organic Spectroscopy —
Lecture and Lab 4 credits**

(Prerequisite: CHEM 309)

Introduces the theory and application of spectroscopy to the structure determination of organic molecules.

CHEM 480 Seminar 1 credit

A study of specialized problems in chemistry and an introduction to the chemical literature.

CHEM 499 Independent Study 1-3 credits

As approved and to be arranged.

CHINESE

CHIN 110 Basic Chinese I 4 credits

This course is designed to provide students

with a basic understanding of Chinese pronunciation and grammar, and knowledge of some Chinese characters and often-used vocabulary. Emphasis is laid on drilling aural comprehension and exercising elementary speaking of Mandarin Chinese.

CHIN 111 Basic Chinese II 4 credits

(Prerequisite: CHIN 110 or equivalent)

A continuation of Basic Chinese I. Equal attention is given to speaking, reading, and writing. Writing consists of exercises in calligraphy and translation of simple sentences. Students are taught how to use a Chinese-English dictionary.

CHIN 112 Intermediate Chinese I 4 credits

(Prerequisite: CHIN 111 or equivalent)

Besides continued training in fluent and accurate speech, students learn new vocabulary and more complicated utterances. Stress is placed on the understanding and absorbing of basic sentence patterns which can serve as a foundation for further study. The students also learn the simplified Chinese characters of contemporary Communist literature.

CHIN 113 Intermediate Chinese II 4 credits

(Prerequisite: CHIN 112 or equivalent)

An intensification of CHIN 112. The students are introduced to a wide variety of topics in modern Chinese; they work toward the goal of recognizing approximately 1200 lexical items (including 1000 characters). They learn how to make short compositions.

CHIN 310 Oriental Literature in Translation 3 credits

This course aims to give students a first glimpse of the wide and fertile field of Asian Literature. The students will be acquainted with some of the major Chinese and Japanese authors. Selections from their masterpieces are chosen with attention to both the students' interest and the best understanding of the mind and thought of Asian people. Among the authors whose work will be studied are: Wu Ch'eng-En, Feng Meng-lung, Li Po, Ts'ao Hsueh-ch'in,

King Shingtan, Murasaki, Kanami, Seami, Kawabata, Motoyasu.

CHIN 499 Independent Study 1-3 credits

As approved and to be arranged.

COMMUNICATION

COMM 110 Communication in Action 3 credits

A study of oral communication as an interpersonal and dynamic process. An analysis of each student's oral abilities will be part of this course. Students will engage in communication experiences designed to develop understanding of and skill in interpersonal communication.

COMM 120 Mass Communication 3 credits

The institutions, history, and technology of the mass media are examined as communication systems. Newspapers, magazines, film, and broadcasting media are studied in terms of social and personal impact. Contemporary media issues, policies, and ethics are discussed.

COMM 220 Radio and Television 3 credits

(Prerequisite: COMM 120)

This is an introductory course to radio and television tracing the historical development and implications of the media. The student is introduced to programming materials, criticisms, standards, skills and production methods.

COMM 221 Introduction to Communication Theory 3 credits

Introduction to Communication Theory will acquaint the student with contemporary theory and research in the field of communication. Motivation, interaction, and effects of communication will be examined in a range of contexts, including within and between persons, small and large groups, organizations, cultures, and mass communications systems.

COMM 222 The Press in a Free Society 3 credits

(Prerequisite: COMM 120)

A study of the relationship between the

news media and society in the United States, with emphasis on the issues and principles that unite and divide the two. Press criticism will be an important part of content.

COMM 225 Audio Production 3 credits

Analysis of the creative efforts and responsibilities involved in the primary stages of sound production. Practice in the writing, producing, directing, performing, and crewing of sound productions and taped materials for radio.

COMM 230 Filmmaking I 3 credits

A study of film-making techniques from the writing of the script to the final product. Technical and theoretical aspects of film-making will be covered in a workshop where students will learn through actual production. Work will include writing, directing, cinematography, sound, or editing. Aesthetics and evaluation of films will be introduced through the viewing and discussion of certain classical examples.

COMM 234 Film as Medium 3 credits

(Prerequisite: COMM 120)

The study of film as a unique audiovisual form of expression. The effect of film as a medium in mass communication. The creative process of film-making and its technical methods. A survey of the use of film in different media: documentary films for television, investigative films, film and the arts, animation, experimental films, electronic films, teaching films, training films, science films, the "Commercials," "Industrials," promotional films. Television series and theatrical features. Film viewing and discussions.

COMM 250 Journalism 3 credits

Practical experience in news gathering and writing the basic journalistic forms, including the straight news story and various types of features. Students undertake reporting assignments designed to develop skills in interviewing, observation and writing, and receive individual evaluation of their work.

COMM 260 Oral Interpretation 3 credits

(Prerequisite: COMM 110)

Students will learn to communicate the

content, form, and mood of works of literature through the medium of oral reading. Material will include expository, narrative dramatic prose, and narrative, dramatic and lyric poetry.

COMM 265 Foundations of Language 3 credits

Foundations of Language will present the student with an overview of the nature and function of language. Stress will be on the aspects of language relating to the phonologic, semantic, and linguistic structures.

COMM 266 Dynamics of Communication 3 credits

(Prerequisite: COMM 110)

Study of verbal and non-verbal communication techniques as used by individuals and the media to inform, persuade, and influence individual and public opinion.

COMM 321 Announcing 3 credits

(Prerequisite: COMM 110)

Introduction to the responsibilities and skills required of the individual performer in the preparation, announcing and narration of the various types of non-dramatic material for television, radio, and film.

COMM 322 Advanced Announcing 3 credits

(Prerequisite: COMM 321)

An in-depth treatment of the field with heavy emphasis on narration for television and film. Extended work in the production of news and disc jockey programs. Utilization of broadcast level facilities is included.

COMM 323 Television Production 3 credits

The student will receive practice in writing, producing, directing, performing and crewing television productions and video-tape materials. The course provides the student with the opportunity to study and practice broadcast program creation under laboratory circumstances which simulate the conditions of on-the-air television broadcasting.

COMM 324 Writing for Radio and Television 3 credits

(Prerequisite: ENG 110)

The technique of writing dramatic and non-dramatic material for radio and television. Theory, practice, and analysis of broadcast material, advertising, and continuity will be emphasized. The course is designed to develop skill in expository, narrative, and persuasive writing as it relates to broadcasting.

COMM 326 Advanced Television Production 3 credits

(Prerequisite: COMM 323)

This course is designed to provide an opportunity for undergraduate students to work within standards and operating procedures similar to those utilized by commercial and educational television. Included will be practice and projects in such critical areas as timing, electronic editing, minor equipment maintenance and color programming.

COMM 331 Filmmaking II 3 credits

(Prerequisite: COMM 230)

The theory and technique of motion picture production with lip-sync-sound in Super 8 and 16 mm film. Different approaches in script-writing, directing non-actors, types of lighting techniques, lighting exercises, cinematography, lenses and perspective, composition, academic editing, editing in camera, editing on the bench. Practical training in shooting with Super 8 and 16 mm film with double system syncsound. Budgeting.

COMM 332 Documentary Film Production 3 credits

(Prerequisite: COMM 331)

An intensive laboratory course in film production which covers documentary techniques: research, scheme of project, storyline, plan of operation, choice of locations and people to interview. Problems and concerns in selection of equipment, crew, lighting on location, screening, narration, and editing are covered with special emphasis on audio and optical effects.

COMM 348 Public Relations 3 credits

This course will define the functions of public relations and distinguish it from regular journalism. While exploring the appropriate functions and outlets for public relations activity, the course will also investigate the ethics of the function and will develop understanding of the basic tools used in handling public relations for various types of situations.

COMM 349 Radio News 3 credits

(Prerequisite: COMM 250)

Instruction and practical experience in the basic techniques of radio journalism including news writing, reporting, producing newscasts and writing copy for taped segments of the newscast. Analysis of radio news broadcasts and discussion of the major issues involved in radio journalism.

COMM 350 Television News 3 credits

(Prerequisite: COMM 250)

Instruction and practical experience in the basic techniques of television journalism including television news writing, writing for film and videotape, reporting for television, and producing television news programs. Analysis of television news broadcasts and discussion of the major issues involved in television journalism.

COMM 351 Advanced Reporting 3 credits

(Prerequisite: COMM 250)

Students are guided in developing in-depth news and feature articles and receive individual evaluation of their work. Matters of current concern to the news media are discussed.

COMM 352 Broadcast Advertising 3 credits

(Prerequisites: ENG 110, COMM 220)

The course is designed to introduce the student to the development and philosophy of broadcast advertising. Theory and practice of commercial advertising techniques will be covered. Emphasis will be placed on the nature of the creative process and the relationship existing between client, broadcaster and the government.

COMM 361 Successful Business and Professional Communication
3 credits

Communication theory, as it relates to business and the professions, will provide the basis for experiences in simulated practical situations. Through this study and practice, the student will acquire a knowledge of those communicative and motivational skills which are essential for progress in business and professional life.

COMM 363 Public Speaking 3 credits

Students will learn theory and skills of preparing and presenting public speeches. Emphasis will be on practice and criticism of classroom speaking experiences.

COMM 365 Introduction to Rhetoric
3 credits

The course undertakes an examination of the development of persuasion. Concentration of study is in classical and contemporary theories of rhetoric which are then correlated to contemporary standards and practice in current public address.

COMM 421 Broadcast Management
3 credits

(Prerequisite: COMM 220)

The course is designed to provide the advanced student of communication with an appraisal of management problems in commercial broadcasting. Included are sales and profit, personnel, programming, audience, governmental regulations and technical factors.

COMM 423 International Broadcasting Systems
3 credits

(Prerequisite: COMM 120)

A comparative study of the national and international broadcasting systems of the world. By means of case studies representative nation systems will be examined in relation to continental areas, cultural characteristics, and developed/developing status. Regional broadcasting systems will be viewed. The structure and operations of present communications satellite systems will be presented.

COMM 425 Television Workshop
3 credits

This course is an extension of the advanced television production course in which students have augmented their production skills. Students will produce, write, and direct video projects dealing with instructional material, news and public affairs, and entertainment programming. Projects must be programmable for campus use, cable television, public broadcasting, and other open circuit channels.

COMM 431 Screenwriting 3 credits

This course provides opportunities for original student work or adaptations in screenwriting. The course is concerned with choice of subject, story, treatment and production requirements. News specials and documentary styles are covered. Interviews, continuity, and commercial copywriting are handled with emphasis on storyboard techniques. Viewing and analysis of professional scripts are included.

COMM 432 Dramatic Film Production
3 credits

(Prerequisite: COMM 331)

The study of the theory and technique of *Dramatic Film Production*. Included in the course are: writing the story-line from an original subject or adaption, film treatment, shooting, script, casting, selection of crew and equipment, function of the Dialogue Director, Improvisation Cinema, Verite style, the function of the art director, lighting, film directing, film acting and editing a dramatic film.

COMM 434 Current Cinema 3 credits
(Prerequisite: COMM 234)

The course will introduce the student to the aesthetic and technical appreciation of contemporary motion pictures. It will concentrate on content, production development, stylistic analysis, and the development of critical analysis as applied to current films.

COMM 437 Film Editing 3 credits
(Prerequisite: COMM 331)

The study of the art and the technique of

editing a sound film in Super-8 and 16 mm. The continuity of a story on film. Cinematic time. The visual rhythm within a sequence. Visual and audio relationships, film structure. Montage. The technique of editing from the screening of the "dailies" to the first "composite answer print" of the finished product.

COMM 444 Colloquium in Communication **3 credits**

Colloquium will offer the student an opportunity for advanced study and discussion of issues and questions, together with the opportunity to study and analyze the research literature available in various areas of communication. Each student will choose an area of communication in which to plan and carry out a research project. **FOR MAJORS ONLY.**

COMM 451 Free Lance Writing **3 credits**

Instruction and supervised practice in non-fiction writing for today's periodical. Students learn how to analyze market needs, develop ideas suitable for publication, prepare manuscripts, and market what they've written.

COMM 452 Advanced Broadcast Journalism **3 credits**

(Prerequisite: COMM 352 or COMM 350)

Advanced work in writing, reporting, editing, and producing radio or television newscasts and documentaries. Students will produce regular broadcast news programs and will study different professional styles and techniques of presenting the news on the air.

COMM 454 News Editing **3 credits**

(Prerequisite: COMM 250)

The course is designed to prepare students to function as copy editors in the news field. Students will receive instructions and supervised practice in editing news copy and writing headlines. Use of visual materials and layout of pages is discussed. Various U.S. newspapers are analyzed.

COMM 459 Journalism Field Studies **3 credits**

Practical application of what is learned in

the classroom. Students work at news or public relations jobs on or off campus. (BY PERMISSION ONLY, WITH PREFERENCE GIVEN TO ON-GOING WORK.)

COMM 460 Reporting Public Affairs **3 credits**

(Prerequisite: COMM 250)

The course is designed to provide students with the nature and law of public affairs on federal, state, and local levels. The rights of working reporters and the rights of the public to matters of legitimate record will be outlined, as well as the practical steps to gather this information.

COMM 463 Group Discussion **3 credits**

Theory and practice in various types of discussion situations. Consideration of the place of discussion in our democratic society. Integration of traditional principles with recently developed concepts and approaches.

COMM 464 Debate **3 credits**

Students in the Debate class will learn and apply principles of argumentation through debating a selected topic in public and intercollegiate debate formats. The course will stress both theory and performance in oral advocacy.

COMM 499 Independent Study **1-3 credits**

As approved and to be arranged through the student's Communication Department advisor.

COOPERATIVE EDUCATION

COOP 100 Cooperative Education I **3 credits**

An entry level work experience in cooperative education. Designed to meet the needs of a student's major.

COOP 200 Cooperative Education II **6 credits**

(Prerequisite: COOP 100)

A second level work experience with increased responsibilities in a higher-level position.

COOP 300 Cooperative Education III
6 credits

(Prerequisite: COOP 200)

Oriented to possible career objectives within the student's major field. The work experience will increase in difficulty and responsibility.

EARLY CHILDHOOD

EC 201 Creative Art for Early Childhood
3 credits

Art activities as modes of perception and integration fundamental to human growth and learning; introduction to art through involvement in a variety of art experiences with color, movement, space, environment, explanations and demonstrations of media, materials and techniques relevant to the teacher of young children. Emphasis on experimental with multi-media.

EC 202 Music and the Young Child
3 credits

Through exploration and discovery in several areas of musical learning including sound, rhythm, body movement, melody, harmony, playing instruments, the pre-service teacher experiences a background in basic musicianship together with the development of skills and understanding needed for creative teaching of music. The activities approach characteristic of this course, emphasizing listening creativity, increases individual musical independence and fosters the aesthetic value of music in the young child's growth and development.

EC 220 Reading and the Young Child
3 credits

This course explores and develops knowledge of reading as a process and a subject, its relation to the nature of the child and the learning process. Students will learn the fundamentals of the developmental teaching of reading at all ages and stages and will be able to apply same to individual and group instruction of children.

EC 221 The Young Child and Language Arts
3 credits

A study of the language skills and

pre-school kindergarten and primary children with an emphasis on listening, speaking, spelling, handwriting and creative writing. Techniques for developing, and evaluating these L.A. skills within the curriculum will be explored. Creative expression, dramatic play, and children's literature will receive appropriate consideration.

EC 300 Practicum in Early Childhood Education
4 credits

(Prerequisite: EC 320)

In the practicum experience, students will be assigned to work in an educational center and, in addition, will meet with the practicum coordinator weekly for evaluation and coordination. The practicum experience will be correlated in a professional semester with Early Childhood Curriculum II and the methods course in reading and language arts. The experience will include observation, working with individuals and small groups to assist with cooperating teacher, the teaching of an entire class, and a weekly seminar.

EC 320 Early Childhood Curriculum I
6 credits

A study will be made of the integrated and organized activities which meet the educational needs of early childhood. Principles of nursery, kindergarten and primary curriculum development will be combined with appropriate teaching procedures and techniques, goals and objectives and management, in the study of the psychological and sociological and cultural factors in the development of the young child. A minimum of 45 hours of observation and participation in pre-school centers will be required.

EC 321 Early Childhood Curriculum II
6 credits

Systemic consideration will be given to the role of correlated experiences from the fields of special studies, science, music, art, children's literature, health, safety, play, and games in the education of the young child. Each of these areas will be developmental needs of the young child in expanding his environment from home to school to the community.

EC 340 Parental Involvement in Early Childhood Education 3 credits

A study of plans and approaches for involving parents in Early Childhood programs. The student will be expected to develop his/her own model for parent participation in planning and sustaining programs for young children.

EC 341 Bilingual Education: Theory and Practice in Early Childhood 3 credits

The course examines programs and related research in bilingual education, especially for young children of Spanish speaking populations. Emphasis is on the rationales for and implementation of bilingual education in a socio-cultural context.

EC 351 Mathematics in Early Childhood Education 3 credits

A detailed study of the number system, the four fundamental operations, and such general information mathematics as is needed by children of the first three grades. The student becomes acquainted with the literature of the subject, including modern texts, recent developments in the field of arithmetic and approved methods of testing.

EC 353 Drama for Children 3 credits

Study of the importance of drama and play in a child's individual and social growth. The student will design and demonstrate program approaches using creative play and dramatic activities with young children.

EC 364 Workshop in Reading and Learning Problems of Young Children 3 credits

This course, through an emphasis on diagnostic-prescriptive teaching of reading, explores the physical, intellectual, psychological and environmental factors involved in the reading problems of young children. The student will be involved with individual and group diagnosis and correction and in the development of appropriate strategies for developmental, remedial and corrective programs within the classroom.

EC 404 Seminar in Student Teaching 1 credit

Current trends and developments in public education are explored. Particular attention is given to classroom management and other problems which confront student teachers. The course will be conducted during the semester of the student teaching experience.

EC 499 Independent Study 1-3 credits

As approved and to be arranged.

ECONOMICS

ECON 201 Macroeconomic Principles 3 credits

Concentrates on the basic economic principles relevant to the resource utilization problems of the economy as a whole. Theories and policies which relate to the economy's total level of output, total income, total level of employment, total expenditures, and the general level of prices will be treated at an introductory level. Topics will include equilibrium level of income and output, monetary and fiscal policies of government, economic growth and development, and international economic relations.

ECON 202 Microeconomic Principles 3 credits

Concentrates on the basic economic principles relevant to resource allocation. Demand and supply analysis will be used to explain at an introductory level two major topics: (1) Price determination in competitive as well as imperfectly competitive markets such as monopoly, oligopoly, and monopolistic competition, and (2) Distribution of income among resources. Concepts to be considered are demand, supply, elasticity, equilibrium price, marginal cost, marginal revenue, etc.

ECON 210 Economic Statistics I 3 credits

(Prerequisite: MATH 150 or MATH 155)

Descriptive statistics (Collection and presentation of data, frequency distributions, measures of central tendency, dispersion and skewness); index numbers; simple correlation and regression; curve fitting; and introduction to statistical inference, sampling, and probability.

ECON 211 Economic Statistics II
3 credits

(Prerequisite: ECON 210)

Sampling distribution of the sample statistics, probability limits, and tests of significance; statistical inference and confidence limits; operating characteristic curves; simple experimental design; and applied probability for decision making.

ECON 230 Economics of the Environment
3 credits

Deals with the problem of environmental quality as an economic problem. This course aims to enlighten the student about the role that economic analysis plays in providing both public and private decision-makers with alternative solutions to environmental problems. Topics include relationships between the environment and the economy, some facts about environmental problem areas, why the market system fails vis-a-vis the environment, controlling environmental pollution, and cost-benefit analysis of public policy with respect to environmental problems.

ECON 301 Macroeconomic Theory
3 credits

(Prerequisites: ECON 201 and ECON 202)

A systemic treatment of the factors determining the level of output, income, and employment of the economy as a whole. Topics include national income accounting; modern theories of consumption, saving and investment; multiplier and accelerator; investment related to productivity and interest rates; aggregate income distribution; the public sector—effects of governmental spending, taxation and debt upon income, employment and economic expansion. Problems of economic growth and development.

ECON 302 Microeconomic Theory
3 credits

(Prerequisites: ECON 201 and ECON 202)

An analytic treatment of theories and techniques of price determination. Topics include the function of price in resource allocation, theory of consumer demand, the laws of production, short-run and long-run costs of the firm, empirical cost

behavior, the relation of price determination to market structures such as perfect competition, monopoly, oligopoly, and monopolistic competition. Theories of income distribution and general equilibrium will also be considered.

ECON 310 Money and Banking 3 credits

(Same as BUS 311)

(Prerequisites: ECON 201 and ECON 202)

An analysis of the nature of money, credit and the banking system of the United States. Topics include the various functions of money, the history of banking in this country, the operation of commercial banks, the Federal Reserve System and the monetary instruments, survey of monetary and income theories, monetary policy as a stabilizing tool and international monetary system.

ECON 320 History of Economic Theory
3 credits

(Prerequisites: ECON 201 and ECON 202)

A study of the history of economic theory beginning with the Greco-Roman economics and concentrating on the eighteenth, nineteenth, and twentieth centuries. The relationship between the evolution of economic thought and socio-political forces will be developed.

ECON 321 Public Finance 3 credits

(Prerequisites: ECON 201 and ECON 202)

A study of the theoretical and empirical aspects of government expenditure and revenue activities. Special emphasis will be placed on the impact of government policies, on the economy and the relationship of government policies and issues of current interest in American society. Topics will include the scope and nature of government activity, public sector revenues, government budgets and budgeting efficiency, inter-governmental fiscal relations, fiscal policy, and selected problems of contemporary interest.

ECON 330 Governmental Economic Policy 3 credits

(Prerequisites: ECON 201 and ECON 202)

This course deals with an analytical investigation of the areas concerned with

the public policy. Topics include the function of competition and governmental authority as a framework for the conduct of economic activity; security, welfare, conflict and unemployment; antitrust legislation; basic principles of fiscal and debt policy; coordination of monetary debt and fiscal policy; economic growth and stability; evaluation of the performance of economic institutions in a democratic society.

ECON 340 Labor and Management in the American Economy 3 credits

(Same as BUS 340)

(Prerequisites: ECON 201 and ECON 202)

A study of the labor and management problem through theoretical, empirical and institutional approaches. Topics will include the history of labor movement in the United States, functions of labor markets, wage theory, concept of the labor force, public legislation on labor and management relations, collective bargaining, unions' impact on wages, inflation and unemployment, manpower policy and investment in human capital.

ECON 350 Urban and Welfare Economics 3 credits

(Prerequisites: ECON 201 and ECON 202)

An investigation is made of the recent problems of poverty and welfare of the cities. Topics include character, determination, and measurement of poverty; the economics of poverty—an American paradox; the Great Society and the Economic Opportunity Act of 1964; alleviation of poverty and social welfare measures; negative taxation as an alternative to welfare benefits; the poor in the work force; liberty, equality, and employment opportunities.

ECON 360 Theory of Economic Growth and Development 3 credits

(Prerequisites: ECON 201 and ECON 202)

A study of the sources of economic growth and development and the private and public policies which affect this historical trend. Both the underdeveloped and developed countries will be considered. Topics will include the various theories of economic growth and the sources of growth, such as saving, investment, education and technology.

ECON 370 International Economics 3 credits

(Prerequisites: ECON 201 and ECON 202)

This course introduces the student to the principles and characteristics of international transactions. Topics will include international trade and national economic objectives, differences in factor and commodity prices, commercial policy, tariffs, quotas, exchange controls, integration and economic development, foreign investment and monetary reforms.

ECON 380 Economic History of the United States 3 credits

(Same as HIST 328)

The course emphasizes the economic elements in the historical growth of the United States from colonial to contemporary times. An analysis will be made of the changing role of government, technological innovation, and industrial pioneering, competition, and other issues in the development of the American Economy.

ECON 390 Comparative Economic Systems 3 credits

(Prerequisites: ECON 201 and ECON 202)

A study of the actual operations of various economic systems as they go about the task of seeking the optimum use of the human and natural resources available to them. The ideological, technological, and organizational features of each system will be stressed. Topics will include American capitalism, Scandinavia's "democratic socialism", British socialism, the Soviet planned economy, the East European systems, and the Chinese system.

ECON 400 Inter-Industry Economics 3 credits

(Prerequisites: ECON 201 and ECON 202)

Study of inter-industry production relations approached through input-output analysis, leading to industry forecasting, cost and profit analysis, and capital budgeting.

ECON 410 Managerial Economics 3 credits

(Prerequisites: ECON 201, 202, ECON 210, 211)

The application of economic analysis to the solution of individual business problems. Among the primary areas covered are demand forecasting cost and profit analysis, and capital budgeting.

ECON 420 Mathematical Economics
3 credits

(Prerequisites: ECON 201, 202, ECON 210, 211)

This course emphasizes the quantitative analysis of the economic problems. Economic theories are presented in compact mathematical forms and their assumptions and interpretations are stressed.

ECON 430 Econometrics
3 credits

(Prerequisites: ECON 201, 202, ECON 210, 211)

The ordinary least squares criterion is scrutinized. The problems of estimating demand, supply, consumption, production and cost functions are treated in depth.

ECON 499 Independent Study
1-3 credits

As approved and to be arranged.

EDUCATION — FIELD EXPERIENCES

EDUC 333 Individualized Instruction
3 credits

A course involving weekly seminars concerning individualized teaching, plus tutoring experiences in selected school systems with innovative or well-tested programs. The course provides an opportunity for the student planning to enter a teacher preparation program to determine if he really wants to teach. Students will arrange a free day for the field work as they develop their schedules. By advanced application only with the Office of Field Laboratory Experiences.

EDUC 403 Culminating Field Experience
8 credits

(formerly Student Teaching)

(Prerequisite: See College of Human Services, page 75-76)

Each senior student is assigned full time for a period of responsible student teaching for

a minimum of 8 weeks in a public school under the guidance of a cooperating teacher and the supervision of a college faculty member. In this situation, the student teacher participates in all activities of the classroom with increasing responsibility until, at the close of the period, the student does full time teaching. In addition, the student is expected to participate in co-curricular activities and school programs. Through this total experience, students become familiar with classroom management, teaching procedures and materials, pupil characteristics and development patterns, the organization and educational program of the school, community resources and the relationship between the school and parents and community groups.

EDUC 415 Senior Teaching Internship
12 credits

(Prerequisites: The same as those for Student Teaching. See College of Human Services, page 75-76)

This course meets the student teaching requirements through a full semester program which combines theory and practice. The student is assigned to a public school for an extended period to serve successively as observer, aide, associate, and teacher, concluding with full time teaching. The student becomes familiar with classroom management, teaching strategies, pupil characteristics, the organization of the school, and relationships with the community. This model combines theory and practice in an evolutionary situation under the guidance of the cooperating teacher and college supervisor. Constant feedback and reinforcement is provided through a required parallel course, EDUC 416 (Performance Tasks in Teaching) or equivalent and parallel course approved by the Office of Field Laboratory Experiences.

EDUC 416 Performance Tasks in Teaching
3 credits

This seminar course, designed to accompany EDUC 415 (Senior Teaching Internship) provides feedback and reinforcement in the process of combining educational theory and practice. Assignments are related to the ongoing tasks and problems of the internship. The

course will explore innovative arrangements in schools and the need for effective teaching.

EDUC 417 Alpha Teaching Internship
12 credits

(formerly Proto Type Alpha)

(Prerequisite: Same as those for Student Teaching. See page 75-76)

This course is a sixteen week student teaching experience that prepares each student teacher for the real world of teaching by offering assignment to a selected public school, on-site relevant course work dealing with classroom management, pupil analysis and teaching strategies. Cooperating teachers are requested to take a required graduate level course on Positive Techniques of Cooperating Teaching. Students are required to take a parallel course, EDUC418 (Actualizing Teaching Style).

EDUC 418 Actualizing Teaching Style
3 credits

This is a seminar course designed to accompany and complement EDUC 417 (The Alpha Teaching Internship). Student teaching problems and their solutions are developed utilizing video taping of live student teaching performances to develop successful teaching techniques and style.

EDUC 465 In-Service Supervised Teaching Seminar I **4 credits**

A course designed to meet the needs of the beginning teacher already employed on a full-time annual contract who has not met the student teaching requirement. Areas of attention include classroom management, individualized instruction, lesson-planning, pupil evaluation, school-community relations, analysis of pupil behavior patterns, and other problems related to the student's work experience. The course incorporates seminar meetings which are held bi-weekly and evaluation visits by the college supervisor to each student's classroom. (Open only to students enrolled in a certification sequence at this college. NO CREDIT IS GIVEN FOR PART I WITHOUT PART II.

EDUC 466 In-Service Supervised Teaching Seminar II **4 credits**

A continuation of EDUC 465 (In-Service Supervised Teaching Seminar I).

EDUCATIONAL ADMINISTRATION

ADE 401 School and Consumer Education: A Quality of Life Approach **3 credits**

(Elective for Teacher Education Majors. Students in other programs may be admitted with the permission of the instructor)

This course utilizes a "quality of life approach" for the study of (1) consumerism and (2) organizational arrangements for consumer education programs offered by public schools. Topics include: implications of consumer education programs offered by public school for the improvement of the quality of national life; individual survival and prosperity within the American System; consumer information and protection; expenditures and taxes for government services; transportation alternatives; and sources of instructional and informational materials.

ADE 402 Schools, Manpower, and Careers: Education for the Future **3 credits**

(Elective for Teacher Education Majors. Students in other programs may be admitted with the permission of the instructor.)

This course considers manpower development and career-oriented education provided by public schools. Among topics emphasized are: implementation of career education in a technological society; the manpower of revolution; career alternatives for the future; and schools and manpower policies.

ADE 403 Legal and Financial Aspects of the Operation of Public Schools **3 credits**

(Elective for Teacher Education Majors)
Designed to provide an introduction to legal and financial aspects of the operation of public schools, this course considers;

legal responsibilities, rights and duties of teachers; problems in securing and allocating funds for public education; and related topics.

ENGLISH

ENG 101-102 English as a Second Language: Fundamentals, I & II 3 credits each

Basic reading and writing course, designed especially for the foreign student or the student whose primary or familiar language is not standard American English.

ENG 108 Approaches to Reading and Writing 3 credits

Basic reading and writing course with primary emphasis on reading. Preparation for ENG 109 and/or 110.

ENG 109 Patterns for Prose 3 credits

Basic writing course with added emphasis on advanced reading techniques. Preparation for ENG 110.

ENG 110 Writing Effective Prose 3 credits

Essential freshman writing course, designed to develop students' writing competency on the college level.

ENG 120 Twentieth-Century Authors 3 credits

Major works in modern fiction, drama, and poetry; may include Conrad, Joyce, Woolf, Yeats, Doris Lessing, Faulkner, Hemingway, Fitzgerald, T.S. Eliot, Albee, Baraka, Camus, Hesse, Chekhov, Pirandello, Lorca, Kafka, Brecht.

ENG 130 The Human Experience in Literature 3 credits

Works dealing with questions of human existence such as identity, initiation, communication; may include Hesse, Ginsberg, Shakespeare, Freud, Mann, McLuhan, Dostoevsky, Ellison, Dante, Sartre, Joyce.

ENG 140 The Writer as Social Critic 3 credits

Works dealing with criticism of society, rebellion against social forms,

assumptions, structures; emphasis on relevance of literature as social protest; may include Swift, Aldous Huxley, George Orwell, Charles Heller.

ENG 200 Methods of Critical Analysis 3 credits

An in-depth study of selected short stories, poems, and plays, with focus on practice in using precise literary terms and analytical and evaluative techniques.

ENG 201-202 English as a Second Language: Introduction to American Culture through Literature, I & II 3 credits each

Advanced course in written communication based on American literary works and designed for the foreign student or the student whose primary or familiar language is not standard American English.

ENG 207 Effective Business Writing 3 credits

A skills course featuring technical report writing, letters, data sheets, abstracts, and other communication procedures.

ENG 208 The Bible and Literature 3 credits

An introductory course in the literary stature and influence of the Bible, and in the way authors utilize what they have read to strengthen their own creative efforts. Works by Dickinson, Twain, Nemerov, Louise Bogan, Margaret Walker, T.S. Eliot, Poe, others.

ENG 209 Book and Magazine Editing 3 credits

A skills course in basic techniques of editing books and magazines. Designed for those interested in a publishing career and for the general reader and writer.

ENG 210 Modern Biography 3 credits

Biographies and autobiographies; Van Gogh, Fitzgerald, Richard Wright, others; a study of the writer's purpose, procedure, and style.

ENG 211 Modern Drama 3 credits

Dramatists of Europe, England, America:

Ibsen, Strindberg, Shaw, Pirandello, Lorca, O'Neill, Albee, Chekhov.

ENG 212 Contemporary Literature
3 credits

British, American, and Continental fiction and poetry from World War II to the present; writers may include Barth, Barthelme, Pynchon.

ENG 214 Contemporary Drama **3 credits**

Theatre of Absurd, Cruelty, Protest, Guerilla Theatre; experiments in ritual and free drama such as "Dionysius in 69;" playwrights may include Adamov, Beckett, Genet, Ionesco, Frisch, Pinter, Albee, Baraka, Stoppard, Kopit, Van Itallie, Sartre, Bond, Handke.

ENG 215 Literature Into Opera **3 credits**

Carmen, *Macbeth*, *Salome*, *Camille*, *Manon Lescaut*, other works in terms of how composer and librettist transformed them into operas; ability to read music not required.

ENG 216 Literature of the Fantastic
3 credits

Science Fiction, children's fantasy, political satire; Lewis Carroll, C.S. Lewis, Robert Heinlein, Arthur C. Clarke, Genet, Kafka, Bradbury, Swift, Wells, others.

ENG 217 Images of Women in Modern Literature **3 credits**

Study of women as they see themselves and as they are depicted by men in literature; may include Doris Lessing, Virginia Woolf, Sylvia Plath, Gustave Flaubert.

ENG 218 Fiction and Film **3 credits**

Study of literature and its transformation into film; *Billy Budd*, *The Turn of the Screw*, *Death in Venice*, *Strangers on a Train*, *Blow-Up*, others.

ENG 219 Nineteenth Century: Women's Voices, Passive to Active
3 credits

A study of women's roles in society through nineteenth-century women's literature: the wife, the mother, the prostitute, the mistress, the breadwinner, the artist.

ENG 220 Women, the Bible, and Modern Literature **3 credits**

A study of Western religion's influence on sexual roles, including the Liberationist reaction. Designed to raise consciousness on a philosophical, mythological, and political level. Includes works by Kate Millett, Adrienne Rich, Mary Daly, Doris Lessing, others.

ENG 221 The Mystery Story **3 credits**

The detective story, spy novel, Gothic suspense tale: Poe, Sherlock Holmes, Christie, Sayers, Hammett, Chandler, Buchan, Ambler, Ian Fleming, others.

ENG 222 Crime and Punishment: Law in Literature **3 credits**

An examination of a wide range of literature with particular emphasis on its relation to questions and problems of civil and criminal law; may include works by Thoreau, Dickens, Camus, Dostoevsky, Wright, Solzhenitsyn, and others.

ENG 301 English Literature through the Neo-classic Period **3 credits**

Critical study of selected prose and poetry from beginnings of English Literature through 18th century, with attention to social and intellectual background; included are such authors/works as *Beowulf*, Chaucer, Spenser, Shakespeare, Milton, Pope, Johnson, Fielding, Swift.

ENG 302 English Literature: Romantic through Modern **3 credits**

Critical study of selected prose and poetry from early 19th century to present, with attention to social and intellectual background; included are such authors as Blake, Woodsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Wilde, Joyce, Yeats.

ENG 303 American Literature to 1865
3 credits

Major and minor American authors from the beginnings through Poe, Hawthorne, Melville, Emerson, Thoreau.

ENG 304 American Literature 1865-1914
3 credits

Major and minor American authors of the period; emphasis on Whitman, Dickinson, Twain, James, Stephen Crane.

**ENG 305 Literature of Western Europe:
to the Renaissance 3 credits**

Great works of early Western World;
Homer, Sophocles, Plato, Aristotle, Virgil,
Dante, Boccaccio, St. Augustine.

**ENG 306 Literature of Western Europe:
Renaissance through Modern 3 credits**

Great works of later Western World;
Machiavelli, Rabelais, Cervantes, Moliere,
Goethe, Balzac, Dostoevsky, Mann, Sartre,
Proust.

**ENG 310 Elizabethan and Jacobean
Drama 3 credits**

Shakespeare's forerunners and
contemporaries in drama; Kyd, Marlowe,
Jonson, Webster, others.

**ENG 311 Literature of the English
Renaissance 3 credits**

British prose and poetry to the death of
Elizabeth; Spenser, Sidney, Raleigh;
beginnings of modern English fiction,
sonneteers, pastoral writers, others;
Utopia.

**ENG 312 Donne, Jonson, and their
Contemporaries 3 credits**

Study of British literature from 1600-1660,
emphasizing Donne, Jonson, Bacon,
Herrick, Herbert, Marvell; focus is on
relationship between themes and
techniques of 17th-century literature and
those of modern times.

**ENG 313 The Age of Dryden, Pope, and
Swift 3 credits**

Early 18th-century poetry, prose, satire;
"MacFlecknoe," "The Rape of the Lock,"
Gulliver's Travels, others; rise of the novel.

ENG 314 The Age of Johnson 3 credits

Late 18th-century poetry, prose, drama;
emphasis on Boswell, Johnson,
Goldsmith, Gray; decline of Augustanism,
rise of Romanticism.

**ENG 315 Romantic Movement in England
3 credits**

Romantic poetry and prose; Burns, Blake,
Wordsworth, Coleridge, Scott, Byron,
Shelley, Keats, critics of the period.

ENG 316 Victorian Literature 3 credits

Poetry of Tennyson, Browning, Arnold,
others; prose works by Carlyle, Newman,
Mill, Ruskin, Huxley; Victorian novels and
plays.

**ENG 317 Modern American Literature
3 credits**

Leading American writers of modern
period; Stevens, Frost, T.S. Eliot, O'Neill,
Fitzgerald, Hemingway, Wolfe, Steinbeck,
Faulkner, others.

**ENG 318 Modern British Literature
3 credits**

Fiction, poetry, drama, criticism since 1885;
Forster, Hardy, Joyce, Yeats, Shaw, Woolf,
Conrad, Hopkins, D.H. Lawrence, I.A.
Richards, William Empson; Irish
Renaissance, Naturalism, Symbolism.

**ENG 319 Modern British and American
Poetry 3 credits**

Major poets and significant trends in
modern British and American poetry
beginning with Yeats and Robinson and
including such figures as Frost, T.S. Eliot,
Auden, Thomas, Sexton, Plath, Ginsberg,
Lowell, Larkin and Hughes.

**ENG 320 The English Novel: Defoe to
Austen 3 credits**

Selected novels by Defoe, Richardson,
Fielding, Smollett, Sterne, Austen.

**ENG 321 The English Novel: Dickens to
Hardy 3 credits**

Selected novels by Dickens, Thackeray,
Trollope, Meredith, George Eliot, Hardy.

**ENG 322 Nineteenth-Century European
Novel 3 credits**

Major figures in development of novel in
Europe; Balzac, Flaubert, Dostoevsky,
Tolstoy, others.

**ENG 323 Twentieth-Century European
Novel 3 credits**

Readings in representative novelists,
including Proust, Mann, Hesse, Kafka,
Camus, Moravia, Solzhenitsyn.

ENG 330 Critical Writing 3 credits

Analysis of writings to uncover principles and techniques of expressive communication; training in writing critical papers, book and film reviews, formal and informal essays.

ENG 331 Creative Writing 3 credits

Workshop leading to development of imaginative power and originality in writing poetry, fiction, drama, film scripts.

ENG 332 Advanced Creative Writing 3 credits

A second semester of Creative Writing providing an opportunity for further specialization in the modes of imaginative writing.

ENG 335 Modern American Jewish Authors 3 credits

Study and interpretation of modern literary works describing the Jewish experience in America. Authors include Philip Roth, Bernard Malamud, Edward L. Wallant, Chaim Potok, Saul Bellow, Delmore Schwartz, others.

ENG 399 Selected Topics 3 credits

Study of special areas of literary concern not covered in-depth in any existing courses. Topics vary from semester to semester in response to student demand and professorial interest. Topics are announced in the respective Master Schedules.

ENG 401 Linguistics and Grammar 3 credits

Study of both traditional and structural grammars to aid in analysis of language in understanding and improvement of style.

ENG 402 Development of the English Language 3 credits

Study of forces that shaped vocabulary, pronunciation, spelling, grammar of the language.

ENG 410 Chaucer and His Age 3 credits

Representative works of Chaucer, with emphasis upon *The Canterbury Tales*, examined against the background of the period.

ENG 411 Shakespeare: Comedies and Histories 3 credits

Study of such plays as *Richard II*, *Henry IV*, *A Midsummer Night's Dream*, *The Merchant of Venice*, and *Much Ado About Nothing*.

ENG 412 Shakespeare: Tragedies and Romances 3 credits

Study of such plays as *Hamlet*, *Macbeth*, *Romeo and Juliet*, *Othello*, *King Lear*, *The Tempest*.

ENG 413 Milton 3 credits

Study of dramas, lyric poems, epics, prose works of John Milton with emphasis on *Comus*, "Lycidas," *Paradise Lost*, *Aeropagitica*; focus is on Milton's relevance to our time.

ENG 420 Literary Criticism 3 credits

Major literary theories and practices from Aristotle to the present with emphasis on contemporary application; experience in practical analysis and writing.

ENG 421 Literature and Psychoanalysis 3 credits

Study of literature through application of depth psychology; analysis of short works such as *Oedipus Rex* and the short stories of Poe, Kafka, Melville, and Hawthorne.

ENG 422 The Psychological Novel 3 credits

The inter-relationship between depth psychology and literature; the use of psychoanalysis in interpreting and understanding the novel. Authors may include Gide, Woolf, Joyce, Beckett, and others.

ENG 423 Myth, Symbol, and Literature 3 credits

Study of symbol, ritual, and myth formation; primitive classical, biblical, and social symbols and myths as they appear and function in literature.

ENG 480 Seminar in English Literature 3 credits

Course to help students study, in-depth, works of a single British author (or selection) chosen by instructor.

ENG 481 Seminar in American Literature
3 credits

Course to help students study, in depth, works of a single American author (or selection) chosen by instructor.

ENG 499 Independent Study 1-3 credits

As approved and to be arranged.

Note: See also courses listed under Humanities.

ENVIRONMENTAL STUDIES

ENV 201 Environmental Topographic Analysis — Lecture and Lab
4 credits

(Prerequisite: Basic knowledge of the principles of Algebra, Geometry and Trigonometry)

The course is intended to acquaint the student with fundamentals necessary for assessment of the impact of proposed structures and land form modifications on man's environment. Subjects covered are fundamentals of surveying, map construction and interpretation, elements of topographic drafting, photogrammetric studies, plots, site plans, and field work to prepare the various exhibits essential for this type of environmental analysis.

ENV 301 Field Experience 3 credits

Each student in the Environmental Studies Program is expected to take one semester of Field Experience in either the third or fourth year. This will consist of working approximately one full day per week on environmental problems in a unit of local government, education, or industry. Such an experience will give the student valuable insight into the many factors involved in day to day environmental management.

ENV 303 Physics and the Environment — Lecture Only 3 credits

(Prerequisites: PHYS 255, PHYS 256)

The course stresses the fact that many of our environmental problems and the possible means of managing them are both direct consequences of the basic laws of physics. It considers applications of physics to topics such as transportation,

power generation (including the use of nuclear and solar energy), and the understanding and control of water runoff. Particular attention will be given to physical methods of pollution monitoring and remote environmental sensing.

ENV 310 Metropolis as Fact and Artifact
4 credits

History, contemporary impact, and future of the man-made settlement and its spatial components: paths, nodes, edges, districts, networks, etc. Factors such as imagability, congruence, neighborhood unit theory, and district specialization will be discussed as they are perceived and experienced in contemporary metropolis. The same factors will be considered as they have evolved in both the history of city planning and in the actual growth of metropolitan areas in America. Particular attention to community, block, and housing design as reflective of social values and economic forces. A field component of the course includes exercises in "reading" urban space in New York City, urban industrial history in Paterson, and ideas of community and privacy in housing developments and shopping malls in Bergen and Passaic Counties.

ENV 380-381 Junior Seminar
2 credits each

The Junior Seminar is designed to give third year students in the Environmental Studies Program a chance to review and to evaluate critically a number of areas of present major environmental concern. Students then have a chance to carry out independent studies on a problem of particular personal interest, selected through consultation of the student with the instructor. Seminar participants will meet in small groups with one or more instructors, and each participant will take part in discussions of both his own project and that of others.

ENV 480-481 Senior Seminar
2 credits each

In the Senior Seminar, a fourth year student in the Environmental Studies Program will undertake an independent study project utilizing the material learned in both the Core I and Core II courses and in the subject of concentration or Track selected prior to

the third year of study. The subject will be selected through joint consultation of student and instructor, and students in the Senior Seminar will meet in small groups with selected instructors to review and discuss their projects.

CORE COURSES

These courses, described under the respective disciplines, are listed below:

CHEM	110	Crisis of the Environment	3 credits
PHYS	165	Energy and Earth's Natural Resources	3 credits
BIO	140	The Biosphere	3 credits
GEO	110	Cultural Geography	3 credits
ECON	230	Economics of the Environment	3 credits
POL	217	Politics of the Environment	3 credits
PSY	360	Environmental Psychology	3 credits
SOC	406	Social and Environmental Change	3 credits

FIELD AND SIMULATED EXPERIENCES

FASE 203 The Urban School Experience 3 credits

This course is designed to provide prospective teachers with a pre-practicum experience in an urban school. The class meets 1 day per week for 150 minutes in an urban school. It combines the tutoring of individual school children and an on-site seminar. The tutoring is supervised by a college instructor with the assistance of urban school personnel. The seminar provides for the sharing of experience, the identification of urban school problems and the search for solutions.

FASE 301 Practicum in Elementary Education 3 credits

(Prerequisite: TED 300)

In the practicum experience, students are

assigned to work in an educational center; in addition, they will meet with the practicum co-ordinator weekly for evaluation and coordination. The practicum experience will be correlated with certain methods courses and educational psychology. The experience includes observation, working with individuals and small groups to assist the cooperating teacher, and the teaching of an entire class.

FASE 303 Education Laboratory: Crafts and Strategies in Elementary Mathematics 4 credits

Students will study the techniques of conducting a laboratory-oriented elementary school mathematics program. Teachers will be trained to identify and to diagnose mathematic difficulties. They will be prepared to recognize problems that are normally encountered in the classroom. This course emphasizes prescription. The teacher becomes a diagnostician who is constantly observing, testing, and teaching.

FASE 305 The Urban and Suburban Elementary Schools: Problems and Issues 4 credits

This course presents an overview of current modifications and thrusts in elementary schools. Major principles of operation, curriculum, children and the community will be considered. Reference will be made to clinical/field prototypes as well as theory and, where possible, a field emphasis will be used. Where possible, synchronization of field and theory will be viewed, and emerging and ongoing diversified issues and problems will be explored.

FASE 306 Aesthetics Laboratory in Music and Art 4 credits

This course deals with major principles and materials in the teaching of art and music. Students will study the techniques of conducting a clinically-oriented fine arts program. The relationship of these two disciplines to the needs and interests of children will be emphasized. The value of the arts as aesthetic experience will also be investigated. A major part of the course will be workshop activities where the concepts of creative expression may be applied.

**FASE 324 Teaching Mathematics in the
Elementary School 2 credits**

Purposes, principles and techniques of teaching elementary school mathematics. Effective lesson-planning, motivation, drill, manipulative materials, problem-solving, evaluation and remedial techniques are some of the topics studied. The work will be related to field experiences.

**FASE 325 Teaching Art in the Elementary
School 2 credits**

Direct experiences in creative art activities including objectives and philosophy of Art Education. The developmental stages of children in creative and mental growth are discussed.

**FASE 326 Teaching Music in Elementary
School 2 credits**

The methods of teaching children music as presented by the various music series and an evaluation of materials most commonly used in the public schools.

**FASE 327 Teaching Science in the
Elementary School 2 credits**

To help students develop their ability to introduce scientific facts, ideas and methods of problem-solving in the classroom. The course includes planning a science program for the elementary school, selecting and presenting information and ideas in the classroom, the selection of appropriate books, supplies and equipment and the use of field trips. Work will be related to field experiences.

**FASE 328 Teaching Social Studies in
the Elementary School 2 credits**

The aims, methods, materials and organization of social studies instruction for the elementary school. Emphasis will be placed upon interdisciplinary organizational patterns and inquiry methods of instruction. Work will be related to field experiences.

**FASE 397 Individualized Internship in
Education 3-6 credits**

(Prerequisite: Entrance into a teacher education major or sequence, permission of the faculty, and enrollment in a college-approved teacher center)

This course provides additional field experiences in supervised teaching, team teaching practicum or para-professional work in experimental educational centers prearranged by the Office of Field Laboratory Experiences. It is taken in connection with other field experiences and/or courses and includes seminars.

**FASE 398 Simulated Laboratory
Experiences in Elementary
Schools 3 credits**

This course is designed to create a fictitious but lifelike school where prospective teachers encounter typical problems. The school is created through the use of filmstrips and films, cumulative record folders, a faculty handbook, and other resource materials. Each student will assume the role of the teacher and will be given an opportunity to face, study and solve carefully selected problems under the guidance of the instructor.

**FASE 404 Seminar in Student Teaching
1 credit**

In this course, the latest trend and developments in elementary education are explored. Problems of classroom management are discussed. This course will be conducted during the semester of the student teaching experience.

**FASE 405 Art Education in the
Elementary School 3 credits**

An analysis of methods, techniques, and materials, for teaching art in the elementary school for Art Education majors. A study of the philosophy and history of art education, curriculum organization and art activities that contribute to the creative and mental growth of children. The course will be correlated with Secondary Art Education and Student Teaching and Seminar for majors in Art.

**FASE 406 Music Education in the
Elementary School 3 credits**

An analysis of methods, techniques, and materials for teaching music in the elementary school for Music Education majors. The place and aims of music in the elementary school will be explored with attention to general classroom music and the development of vocal and instrumental

groups. Work will be related to field experiences. This course will be taught in correlation with Secondary Music Education and Student Teaching and Seminars for majors in Music.

FASE 499 Independent Study 1-3 credits

As approved and to be arranged.

FRENCH

FR 100 Spoken French for Tourists 3 credits

This course develops the student's ability to speak, understand and read basic and simplified French.

FR 109 France Today: Culture and Language 3 credits

This course is designed primarily to introduce the student to contemporary France, particularly to those aspects of life which would most interest today's American college student. Cultural material will be presented in English. Secondly, this course develops the student's ability to speak and understand basic and simplified French. No previous knowledge of French is required. The amount of material to be covered will be determined by individual need and progress.

FR 110 Basic French I 4 credits

(Prerequisite: 0-1 year high school French)

By the use of oral modern French, this course provides the student with basic fluency in contemporary everyday French conversation. Reading and writing skills are developed logically from an aural-oral base.

FR 111 Basic French II 4 credits

(Prerequisite: FR 110 or equivalent)

This course provides the student with constant development of contemporary conversational French and of reading and writing skills beyond the beginning level.

FR 112 Intermediate French I 4 credits

(Prerequisite: FR 111 or two years of high school French or equivalent)

Aural-oral presentation of literary

selections and discussion of such topics as travel, student life and problems, careers, sports and games, industry, the fine arts, etc. Development of reading and writing skills beyond the basic level.

FR 113 Intermediate French II 4 credits

(Prerequisite: FR 112 or three years of high school French or equivalent)

A continuation and intensification of Intermediate French I. The course aims at inducing a sophisticated level of comprehension and discussion by the use of filmstrips, recorded literature, etc. Guided reading of current French newspaper and magazine articles or a full-length novel or anthology.

FR 222 Advanced French Conversation and Composition I 3 credits

(Prerequisite: Intermediate level proficiency)

Intensive oral and written practice in French on an advanced level. Practice in colloquial, idiomatic French, and the supplementary use of newspapers, magazines, and other media. Application of techniques of written communication: expository, narrative and descriptive.

FR 223 Advanced French Conversation and Composition II 3 credits

(Prerequisite: FR 222 or equivalent)

Continuation and intensification of FR 222. Extensive incorporation of contemporary French cultural material in conversation. Intensive practice in composition beyond the introductory level of FR 222.

FR 230 Masterpieces of French Literature from Rabelais to Robbe-Grillet 3 credits

(Prerequisite: FR 222 or equivalent)

An introduction to the major literary trends and schools in France from the Renaissance to "nouveau roman." Selected readings from masters of each major literary period.

FR 240 Cultural Heritage of France 3 credits

(Prerequisite: FR 222 or equivalent. May be taken simultaneously with FR 222)

An introduction to the cultural heritage of France from medieval times through the nineteenth century. The history of France's major contributions to Western thought and to the arts and sciences.

FR 241 Contemporary French Culture and Problems 3 credits

(Prerequisite: FR 222 or equivalent. May be taken simultaneously with FR 222)

Contemporary France, its thought, its life style, its contributions to contemporary Western culture. Examination and discussion of the major social and political problems of contemporary France. The impact and contribution of French films today. A selection of French films viewed and discussed.

FR 300 Twentieth-Century French Literature in Translation 3 credits

This course will enable students, through reading and critical discussion, to confront the ideas and tendencies reflected in the works of the major French writers of the 20th century. Among the major writers whose works will be represented are: Proust, Gide, Colette, Beckett, Robbe Grillet, Cocteau, and Prévert.

FR 301 Selections from French Existential Literature in Translation 3 credits

Selected plays and novels of the chief exemplars of French existential literature. Readings from Sartre, Camus, and de Beauvoir will highlight the conflicts which modern man faces in his search for identity and in his call to political engagement.

FR 320 Interpreting French Literature 3 credits

(Prerequisite: FR 222 or equivalent)

This course entails a theoretical presentation of the French method of stylistic analysis known as "explication de texte" and the application of this method to selected texts from various periods of French literature.

FR 331 The Twentieth-Century French Novel 3 credits

(Prerequisite: FR 230 or equivalent)

Study of the novel of twentieth century France, with particular attention to such authors as Gide, Proust, Mauriac, Sartre, Camus, Robbe-Grillet.

FR 333 The Modern French Theatre 3 credits

(Prerequisite: FR 230 or equivalent)

Major dramatists and movements in France from the beginning of the century to the present. Emphasis on the period from French existentialism through the théâtre de l'absurde.

FR 334 French Literature to 1600 3 credits

(Prerequisite: FR 230 or equivalent)

A study of the literature of medieval France.

FR 336 Great French Poetry from Villon to Our Times 3 credits

(Prerequisite: FR 230 or equivalent)

A study of the French poetic tradition and of major poetic works from the late medieval period to post-surrealism.

FR 337 French Literature of Canada, the Antilles, and Africa 3 credits

(Prerequisite: FR 230 or equivalent)

This course introduces the students to the major genres, themes, and authors of Franco-phone literature outside of metropolitan France. Emphasis will be placed upon the intrinsic literary value of black and Canadian literatures expressed in French and the cultural and social dimensions of these literatures.

FR 350 Advanced French Phonetics and Grammar 3 credits

(Prerequisite: Completion of FR 113 or equivalent)

The French phonetic system, phonetic analysis and transcription, extensive practice in pronunciation, intonation, and diction. Practice in simple discourse and in oral reading of prose, poetry and dramatic literature. A systematic study of French grammar at an advanced level.

FR 351 Tutorial Laboratory in French**3 credits**

(Prerequisite: At least second year status in the major)

This course is designed to provide experience, training, and academic preparation for those majors or minors who seek increased fluency and grammatical expertise. To be applied in Basic I level of French classes.

FR 399 Selected Topics 3 credits

(Prerequisite: FR 230 or equivalent)

Enrichment courses of special interest to French majors or minors. To be chosen through faculty and student discussion.

FR 432 The Nineteenth Century French Novel 3 credits

(Prerequisite: One 300 level course in French literature)

The French novel from Hugo to Zola. Analysis of the genre in the movements of romanticism, realism, and naturalism. Readings from Hugo, Stendhal, Balzac, Flaubert, Zola, and Maupassant.

FR 435 Seventeenth Century French Tragedy and Comedy 3 credits

(Prerequisite: FR 230 or equivalent)

The French classical tragedy, tragi-comedy, and comedy. The major plays of Corneille, Racine, and Moliere in their contemporary and universal significance.

FR 438 Literature of the French Enlightenment 3 credits

The transition from French classicism to the eighteenth century revolt against authority and tradition. Selections from Montesquieu, Diderot, Voltaire, Beaumarchais. Introduction to the eighteenth century French novel and psychological drama.

FR 480 Senior Seminar 3 credits

(Prerequisite: At least 21 credits in the French major completed)

In-depth study of a selected author or theme; e.g. women in French literature.

FR 499 Independent Study 1-3 credits

As approved and to be arranged.

GEOGRAPHY**GEO 110 Cultural Geograpy 3 credits**

An application of the concepts of earth as the home of man and a real differentiation and association through time are pursued. Special emphasis is on the geographical analysis of human environment as the result of the intricate variety of cultural-world/physical-world interactions.

GEO 120 Man's Physical World 3 credits

This course is designed to elucidate the patterns of the physical earth and man's environment. The central focus is upon a real distribution and the functional inter-relationship of the physical elements of geography, land forms, climate, soil, vegetation and water.

GEO 130 Human Ecology 3 credits

The course is concerned with man's role in altering the face of the earth and the conservation of natural resources.

GEO 150 World Regional Geography 3 credits

A study survey of the whole earth by continents and natural regions, of the basic physical, cultural, socio-economic and political factors is undertaken.

GEO 204 New Jersey Wildlife at the Crossroads 3 credits

A study designed to introduce the student to the complexities of wildlife management in the heart of the urbanized Northeast U.S. Much time will be spent examining the game and non-game animal species as well as the endangered species in New Jersey. A variety of field trips will be taken to help the student experience these man-land-animal relationships.

GEO 230 Population and Settlement Geography 3 credits

This course is a geographical interpretation of the world's population distribution, numbers and dynamics through time. Special emphasis will be given to the distribution of man's habitation forms and patterns, including the functioning of urban areas.

GEO 233 World Resources and Industries
3 credits

The course deals with man's economic activities on a global scale. The contributions of the environmental factors (cultural and physical) to these activities will be analyzed.

GEO 250 The Historical Geography of the Bible Lands
3 credits

This course will be a discussion of the geography of the ancient Near East as a reference to the *Bible*; and geographical interpretation of other ancient Near Eastern texts.

GEO 300 Geopolitics
3 credits

The course deals with the influence of such factors as location, size, form, surface, climate, natural resources, and population on the political development of nations and their roles in world politics.

GEO 310 Trade and Transportation Geography
3 credits

A study of the exchange of commodities among the world's trading nations and an examination of the types of transport for the convenience of freight and passengers.

GEO 330 The Geography of Metropolitan Area
3 credits

This course is a study of the four basic elements of greater New York area; the physical setting and geographical location, the historical development, the activities and the cultural functions.

Geographical Area Studies

Each of these geographical area studies deals with the geographical analysis of the region's physical features, natural resources, cultural patterns, problems, and economic potentials, together with its place in the world.

GEO 331 Asia's Geography and Problems
3 credits

GEO 332 Middle East's Geography and Problems
3 credits

GEO 333 Europe's Geography and Problems
3 credits

GEO 334 Africa's Geography and Problems
3 credits

GEO 335 Latin America's Geography and Problems
3 credits

GEO 336 Soviet Union's Geography and Problems
3 credits

GEO 337 Australia and Oceania's Geography and Problems
3 credits

GEO 338 United States and Canada's Geography and Problems
3 credits

GEO 339 New Jersey's Geography and Problems
3 credits

GEO 350 Geo-Economics of Energy and Man
3 credits

This course will be an analysis of the various sources of energy and the associated geographic-ecological economic problems of their utilization. It will deal with contemporary production and consumption of energy and projection for the future of energy needs and supplies in the U.S. and the world as a whole.

GEO 360 Geo-Economics of Food and Hunger
3 credits

This course will be a discussion of the phenomenon of hunger and malnutrition in mankind. The question of adequacy of food resources on both regional and global basis will be analyzed. Future food supply and food consumption will be investigated and the impact of food or hunger on world peace and political structure will be studied.

GEO 365 Man, Nature, and Wildlife
3 credits

This course concerns itself with aspects of biogeography and zoogeography. It is designed to introduce the college student with an interest in wildlife, freshwater and marine fish to the basic ecological and geographic concepts concerning management practices.

GEO 370 Global Ecology
3 credits

This course will be an analysis of the

various global ecological elements such as atmosphere, hydrosphere, biosphere and the impact of modern technology upon them; it will deal with the consequences of the damages to the ecological elements and possible solution to protect world ecology.

GEO 400 Urban Geography 3 credits

This course is a geographical analysis of the distribution of cities, urban functions and internal forms and patterns, along with urban expansion, rural-urban fringe and problems of site and situation.

GEO 401 Cartography 3 credits

The basic course in map making; projections, thematic, relief and statistical cartography will be covered.

GEO 404 Polar and Alpine Geography 3 credits

Polar and alpine environments can best be understood by analyzing the interrelationships existing among the parameters of location, size, range of physical and cultural features and the ultimate impact of modern technology on these fragile ecosystems.

GEO 405 The Geography of Oceans 3 credits

The course will be a synthesis of the techniques and competencies of physical, cultural, economic and political geography as they apply to the oceans of the world. It will deal with mankind; on, under and alongside of the world's waters, and how human life and activity are affected by oceanic geography.

GEO 410 The Historical Geography of the United States 3 credits

The course deals with past landscapes in the various culture-regions of the U.S.; physical habitat and social patterns are studied in their continuous interaction through time. Special attention is given to the concept of "regional character."

GEO 416 The Military Geography of the 20th Century 3 credits

A study of the major conflicts of this century utilizing the concepts and methodologies of physical, political,

economic and social geography. In essence, an in-depth investigation of historical geography.

GEO 480 Senior Seminar 3 credits

The description of the aims, methods, deeds, rewards (past, present, and future) of Geography as a discipline. A part of the course will deal with professional training programs and positions in geography.

GEO 499 Independent Study 1-3 credits

As approved and to be arranged.

GERMAN

GER 110 Basic German I 4 credits

Intensive aural-oral practice, stressing the acquisition of the dual skills of listening comprehension and speaking; emphasis on everyday German. Reading of graded material in diverse areas of interest.

GER 111 Basic German II 4 credits

(Prerequisite: GER 110 or equivalent)

Reinforcement of aural comprehension and speaking ability; current idiom, as used in meaningful context, is emphasized. Enhancement of reading ability by means of programmed readers.

GER 112 Intermediate German I 4 credits

(Prerequisite: GER 111 or two years of high school German or equivalent)

Refinement and introduction to the subtlety of oral expression. Guided discussion of questions of topical interest. Reading of the more formal and intricate language of unedited texts; supplementary readings from newspapers, magazines and journals.

GER 113 Intermediate German II 4 credits

(Prerequisite: GER 112 or equivalent)

Development of free conversation with the aid of newspapers, magazines, tapes, recordings. Topics of contemporary import provide a basis for an up-to-date, comprehensive view of Germany. Extensive reading of socio-political, cultural and literary material as a point of departure for gaining insight into today's Germans, their institutions and attitudes.

GREEK

GR 110 Classical Greek for Beginners I 3 credits

An introductory course which provides the student with the basic elements of Classical Greek. Primary emphasis is on structure and morphology, and aims chiefly at a graded reading knowledge. Since Classical Greek is a non-living language, classes will expose the student to translation of simple, grammatical forms and sentences in order to develop an extensive vocabulary.

GR 111 Classical Greek for Beginners II 3 credits

This course probes deeper into the reading and translation of complex forms of Classical Greek. Primary emphasis is on syntax. Students are exposed to simple readings and translations of famous works of Classical writers. Since Classical Greek is a non-living language, students are taught how to handle the variations of words and verbs through the aid of a dictionary in order to translate written material.

HEALTH SCIENCE

HSC 120 Current Health Problems 3 credits

Current health problems affecting the college student are selected by the students and discussed on a problem-solving basis. Special emphasis is given to the following topics: human sexuality, mental health, stimulants and depressants, environmental health, and consumer health.

HSC 200 Consumer Health 3 credits

Consumer problems are viewed in terms of economic, social, psychological and biological consequences to the individual and the community. Consumer attitudes and behavior regarding needs, desires, and response to advertising are discussed. Topics include health insurance, life insurance, medicare, over-the-counter drugs, cosmetics, health fads and quackery, consumer protection agencies, sales frauds and evaluation of products.

HSC 210 Women's Health 3 credits

Explores facts, feelings, and practical aspects of women's attitudes toward themselves and their bodies in relation to their specific reproductive functions as well as their role as responsible consumers of health care. Topics will include: Women's development, mental health, female sexuality, the menstrual cycle, contraception, abortion, pregnancy and birth, gynecological care and self-help procedures, cancer detection and treatment, nutrition, aging, rape, and self-defense.

HSC 300 Community Health 3 credits

Organization and function of community health agencies and their relation to the school and community health programs. Includes discussion on chronic and communicable disease (including sight and hearing conservation, venereal disease, etc.) pollution, sanitation programs, accidents, food handling and preservation, and consumer health. (Includes field work)

HSC 310 Health Care Systems 3 credits

An overview of the health and social welfare services system in the United States. Hospitals, clinics, health departments, voluntary agencies and home care facilities. Social issues: organizational problems; financing; legislation. (Field work included)

HSC 320 Nutrition 3 credits

A foundation study of human nutrition emphasizing its relationship to optimum physical and emotional health. Includes basics of sound nutrition, body requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads, and weight control.

HSC 321 Nutrition in Early Childhood 3 credits

Basic nutrition concepts and knowledge related to the particular needs of students in Early Childhood education. Emphasis will be on educational application; especially methodology, analysis and development of nutrition programs in schools and other child development programs.

HSC 322 Nutrition for Health Professionals 3 credits

(Prerequisite: Chemistry or Biology or Microbiology or Permission of Instructor)

Introduction to human nutrition that emphasizes the application of basic nutrition information in the community and health delivery system. The course will include fundamentals of nutrition science, the relationship between nutrition and individual well-being, assessment of nutrition status, nutrition through the life span, consumer nutrition concerns, and therapeutic nutrition.

HSC 330 Human Behavior and Health Education 3 credits

A study of the social, psychological and cultural determinants of health behavior and consideration of their meaning for school or community settings. Conditions and phenomena that affect people's acceptance of health information.

HSC 340 History and Foundations of Health Education 3 credits

History and development of the health education profession in the United States: philosophy, professional ethics and role of community health educators.

HSC 351 Methods and Curriculum in School and Community Health Education 3 credits

Principles and procedures for planning and evaluating health education experiences. Identification of necessary concepts in the development of the health education component of programs and criteria for their inclusion. Also techniques and skills needed for teaching large and small groups.

HSC 360 Health Problems of Minority Groups 3 credits

Analysis of economic, demographic, political, legal and sociological factors affecting minority groups with particular emphasis on their implications for personal and community health. Specific health problems or minority groups will be discussed.

HSC 370-371 Introduction to Gerontology I and II 3 credits each

(HSC 370 is a prerequisite for HSC 371)

Changes in certain aspects of health during the middle and later years including changes in anatomy and physiology, in nutritional requirements, in sensorium. Aging and sexuality. Common causes of mortality and morbidity. Attention to psychosocial and economic aspects and to legislation and community organization for satisfying health needs of aging persons.

HSC 390 Epidemiology 3 credits

Epidemiology of disease; how diseases are spread, prevented and controlled. Introduction to the principles of epidemiologic investigation.

HSC 440 Research Analysis and Evaluation in Health 3 credits

(Prerequisite: Proficiency in college algebra or MATH 120 or 155.)

Basic aspects in research methodology, knowledge of basic source materials in health and public health. Experiences in critical reading of professional literature. Basic statistical techniques.

HSC 450 Administration and Supervision of Health Institutions and Organizations 3 credits

Administrative and organizational arrangements for planning, budgeting and reporting health care. Coordination and supervision of official and voluntary agencies; health manpower needs and resources.

HSC 470 Health Aspects of Aging 3 credits

Basic health needs and concerns of the population. Interpretation of health care systems. Prevention of illness and disease, promotion of good health. Continuous spectrum of life.

HSC 471 Community Health Services and the Aging 2 credits

An interdisciplinary approach to the analysis of theory and practice of community health resources which offer health and social services to the aging. Types of services to be examined will

include health and health related programs. This course will establish relationships between need and services.

HSC 490 Human Sexuality 3 credits

The biological, sociological, psychological and educational aspects of human sexuality are presented in discussion format. Anatomy and physiology of reproduction and sexual response are explained in detail. Students will have the opportunity to evaluate and develop their own values and attitudes within the framework of current psychological and sociological theories and information.

The course also includes discussion and material dealing with contraception, abortion, homosexuality, deviation and other psychological and sociological aspects of human sexuality.

HSC 491 Alcohol and Drug Abuse Problems 3 credits

The course is devoted to a discussion and analysis of new developments in drug and alcohol abuse, research, education, treatment, legal, and social policy. Social conditions that promote use of drugs and alcohol and abuse potentials will be examined. Pharmacological properties, legal and research implications, psycho-social implications of drug and alcohol use, treatment and rehabilitation, resources and material, alternatives to drug and alcohol abuse, and group processes are examined. Students are encouraged to develop communication skills, personal decision-making, evaluative awareness, and viable strategies for drug and alcohol abuse education. Consultants will present topics which are unique to their profession.

HSC 497 Fieldwork in Community Health 8 or 15 credits

A supervised field experience in official and/or voluntary health agencies. Provides a learning experience in applying community health education skills to the community setting. Hours to be arranged.

HSC 498 Seminar in Community Health 1 credit

Discussion of contemporary problems in

Public Health. Emphasis is on practical solutions to problems.

HSC 499 Independent Study 1-3 credits

As approved and to be arranged.

HEBREW

HEBR 110 Basic Hebrew I 4 credits

The elements of Hebrew: elementary conversation, writing, the fundamentals of grammar and the reading of simple texts.

HEBR 111 Basic Hebrew II 4 credits

Continuation of Hebrew I: readings of texts of medium difficulty, conversation and more complicated grammatical structures.

HISTORY

A. European History

HIST 110 Heritage of the Ancient World 3 credits

An introduction leading to an understanding of the characteristic ideas and institutions of the Ancient World through the study of some significant developments of crises in the history of Egypt, the Near East, Greece and Rome.

HIST 120 Heritage of the Medieval World 3 credits

Principal critical issues in the era of the formation of European civilization.

HIST 130 The Modern World 3 credits

The focus of this course will be on broad trends and controversial issues. Among the problems studied, but not confined to them, will be nationalism and imperialism, the coming of the two world wars, revolutions and totalitarianism, and the impact of science industrialization on the human condition and survival.

HIST 231 Greek Civilization 3 credits

This course deals with the cultural background of ancient Greece and an

historic analysis of the rise and fall of Athenian democracy. Thucydides and other commentators are used for a critical study of the great issues of Greek civilization.

HIST 232 The Roman Republic 3 credits

A study of Roman history with emphasis on internal political developments. The focus is on the Roman originality in developing the concepts of constitutional government and Rule of Law. The Roman political system is described taking into account that it was adopted as a model by the Founding Fathers of the United States and is evaluated in terms of its success and failure in solving the complex problems of a rapidly expanding economy and area of political influence.

HIST 233 Europe in the Middle Ages 3 credits

The early middle ages and the emergence of medieval order; fact and theories of the relations between Church and state; Europe in the High Middle Ages; the development of secular and urban society; formation of nation states; the artistic and intellectual culture of castle, cathedral and university.

HIST 330 Imperial Russia 3 credits

An examination of the society and culture of medieval Russia will be followed by an inquiry into the conditions leading to the rise of the state of Muscovy and the empire of the Tsars. The course will conclude with the history of the Russian Empire under the impact of the revolutionary economic, social, political; and intellectual changes of the nineteenth century.

HIST 331 Russian Revolution 3 credits

After an inquiry into the causes and effects of the Revolutions of 1905 and 1917, a study will be made of the Soviet regime under Lenin, Stalin, Malenkov, Khrushchev, Brezhnev, and Kosygin. Attention will be given to internal industrial, agricultural, social, political and cultural development as well as to the role of the Soviet Union in world affairs.

HIST 332 Tudor-Stuart England 3 credits

This course will explore the dynamic changes wrought in the England of Henry VIII to Queen Elizabeth, the social and political opposition to the early Stuarts, the English Civil War, the regime of Oliver Cromwell, the Restoration, the Glorious Revolution, and the growth of political stability after 1689.

HIST 333 Modern British History 3 credits

While this course will survey key political developments in Great Britain since the 1780's the main emphasis will be placed upon the development of those social, economic, religious, educational and other institutions, which, including regional differences produced modern British society.

HIST 334 The Italian Renaissance and its Influence on Europe 3 credits

The convulsions of the Renaissance and Reformation which, by attacking the medieval system of ideas and instructions, gave birth to the modern conception of man, life, society, and nature, are analyzed by focusing on the city of Florence. Particular emphasis is placed on the shaping of two new types of human personality: the Humanistic and the Puritanical.

HIST 335 The Scientific Revolution 3 credits

This course, covering the period from the Renaissance to the Enlightenment, shows how changing concepts about the position and importance of the Earth within the solar system and the universe affected an entire style of scientific and philosophic thinking. Attention is called to the peculiarity that even though the new science transformed every man's conception of himself and of his place in the world order, the personal inclinations of a few individuals such as Copernicus, Kepler, Galileo, and Newton were significant.

HIST 336 Europe in the Age of Revolution: 1789-1848 3 credits

The course will examine the transformation of Europe between 1789 and 1848 in terms of what has been called

the “dual revolution”—the French Revolution of 1789 and the contemporaneous Industrial Revolution in Britain. Special emphasis will be placed on the revolutionary movements from 1789 to 1848 which give this period a certain unity. While studying the political-ideological movements of liberalism, nationalism, democracy, socialism, and conservatism, which crystallized in this period, much emphasis will be placed on the social context in which they developed.

**HIST 337 Triumphant Materialism:
Europe 1848-1914 3 credits**

European history from the close of revolutionary era of 1848 to the outbreak of the First World War. Major emphasis will be placed on liberalism and nationalism; imperialism and world politics; the late phases of the industrial revolution; cultural developments; and the coming of the war.

HIST 338 Europe Since 1914 3 credits

Major political, economic, social, and intellectual developments in Europe since 1914; the background and course of two world wars, the internal and diplomatic history of the Great Powers, the rise and decline of ideologies, the economic and political transformation of Europe under the impact of an American-Soviet rivalry, and the intellectual record of the age will form the basis of the study.

**HIST 340 Germany From Bismarck
through Hitler 3 credits**

This course will cover Germany's history from 1848 to 1945 with an emphasis on Germany's involvement in the wars from the Franco-Prussian War to World War II.

HIST 342 Soviet Foreign Policy 3 credits

This course examines the history of Soviet foreign policy from the Revolution in 1917 to the present. It considers traditional Russian foreign policy concerns and the role of ideology in shaping the Soviet Union's perceptions of its world role. The course traces the forces, events, personalities, and issues that have interacted to produce the patterns of Soviet behavior in the international arena during the times of Lenin, Stalin, Khrushchev, and Brezhnev.

**HIST 343 England in the Age of the
American Revolution 3 credits**

This social and political history of England from 1760 to 1820 will concentrate on the dynamic changes wrought by the impact of revolution on older institutions.

**HIST 402 Concepts and Schools in
European History 3 credits**

An examination of the nature of history in the writings of the great historians: Herodotus, Thucydides, Polybius, Tacitus, Livy, St. Augustine, Otto of Freising, Machiavelli, Voltaire, Hume, Gibbon, von Ranke, Buckle, Hegel, Marx, Toynbee and Voegel.

**HIST 430 The French Revolution
3 credits**

Beginning with an analysis of the factors which led to the collapse of the Old Regime, the course will continue with the social and political philosophy of the great thinkers of the French Enlightenment, the Revolution, itself, and the rise and fall of Napoleon.

**HIST 431 The French Revolution and the
Napoleonic Era 3 credits**

Avoiding a broad chronological survey approach, the course will examine crucial periods such as the Revolution of 1789, the Year II—the revolutionary dictatorship and the Terror—and the Napoleonic Era. The outbreak and dynamics of the French Revolution will be explained in terms of the interaction of the independent revolutionary movements initiated by several different social groups. While political history will be stressed, great emphasis will be placed on social history. Finally, the course will attempt to evaluate how much of a “turning-point” the French Revolution and the Napoleonic Era were.

**HIST 432 Intellectual History of Ancient
and Medieval Civilizations
3 credits**

An examination of the artistic, practical (ethical and political), theoretic and religious thought of ancient and medieval civilization in the West.

**HIST 440 The Origin of Civilization
3 credits**

An analysis of the steps by which man

moved from a state of primitive innocence with complete dependence on, and direct relationship with, nature, to the creation of a completely artificial environment, the city. The growth of urban civilization in the Bronze and Iron Ages is described in order to evidence that it was both a curse and a blessing and that it produced a series of problems, conflicts, and opportunities that have shaped the course of history to the present. Attention is called to the fact that shifts in the role and position of women were crucial in the successive transformations of society.

HIST 442 Industrial Revolution in Europe
3 credits

The central theme of this course is the evolution of Western European economic dominance in the modern era. Particular emphasis will be given to the Industrial Revolution, the growth of free trade, overseas economic expansion, the export of capital, external completion, and social and economic reform.

B. United States History

HIST 220 U.S. I: Origins of the Nation to 1789
3 credits

Beginning with the European discovery of America, this course traces the planting of the English colonies in America; the creation of a new American character, the emergence of a new society in the wilderness, and the development of such social institutions as slavery. Emphasis is placed on the unique American concepts of government, the growth of conflict between colonies and the mother country, the military campaigns of the Revolution, and the establishment of an independent national government under the Second Continental Congress, the Articles of Confederation, and the Constitution.

HIST 228 History of New Jersey
3 credits

An examination in historical perspective of political, economic, and social institutions of New Jersey and the influence of adjacent areas.

HIST 239 U.S. Jewish Community
3 credits

Focusing on the historic development of the American Jewish community from colonial to recent times, this course examines such vital issues in American society as ethnicity, cultural identity, and inter-group relations. Thus, it is responsive to a renewed search for the meaning of American experience as well as treating the varied patterns of adaptation on the part of minority individuals and groups within different phases of history.

HIST 320 U.S. II: Jeffersonian and Jacksonian Democracy (1789-1840)
3 credits

An inquiry into the origins of Jeffersonian and Jacksonian Democracy will be followed by a consideration of their immediate impact and lasting significance. Economic, social and political aspects will be studied and comparisons will be made with developments in other nations.

HIST 321 U.S. III: Era of the Civil War (1840-1877)
3 credits

After an investigation of the causes and effects of the beginnings of modern industry and the expansion of slavery, the course will continue with a study of the abolitionist movement, the sectional conflict, the Civil War and Reconstruction. Consideration will be given to the world significance of the great events of the era as well as to their long-range import to the white and black peoples of the United States.

HIST 322 U.S. IV: Progress, War and Normalcy (1877-1933)
3 credits

A survey of rapid economic growth with its impact on business, labor, and agriculture is followed by discussion of social and political developments, including urbanization and "progressivism." In foreign policy, attention is focused on the rise of overseas imperialism, the First World War, and the League of Nations. The course concludes with an examination of the "booming twenties" and the coming of the Great Depression.

HIST 323 U.S.: From New Deal to Cold War (Since 1933) 3 credits

An examination of the "Great Depression" of the 1930's with an appraisal of New Deal domestic and foreign policies, followed by a study of World War II and the United States' role in world affairs through the post-war decades. Changing political, social and economic issues confronting the post-war generation are assessed against the background of world developments.

HIST 324 U.S.: Social and Cultural History 3 credits

Emphasis is placed upon the developing ways of life of the American people and upon the ideas and elements of culture which have influenced American Society. Selected topics will be studied intensively.

HIST 326 U.S.: Foreign Relations to 1898 3 credits

The successive episodes in American foreign relations from the establishment of the republic to the 1890's will be studied. Emphasis is given to the origins of the policies of nationalism, internationalism, isolationism. Readings in diplomatic correspondence, documents and monographs will be employed to help the student understand how foreign policy is made.

HIST 327 U.S.: Foreign Relations since 1898 3 credits

Selected topics in the history of American diplomacy since 1900 will be studied with attention to the impact of domestic policies on the formation of foreign policies. The course embraces not merely the history of American foreign relations, but, in a large sense, the history of the projection of the United States upon the world in the twentieth century. Readings in diplomatic correspondence documents and monographs will be employed to help the student understand how foreign policy is made.

HIST 328 U.S.: Economic History (Issues of Expansion and Change) 3 credits

The course emphasizes the economic elements, including the use of human and

natural resources, in the historic growth of the United States from colonial to recent times. An analysis will be made of such evolutionary economic institutions as the business corporation and labor unions, as well as the changing role of government, technological innovations, competition versus combination, agrarian and industrial pioneering, and other issues in the development of the American economy.

HIST 329 The Wild West and the American Frontier 3 credits

The impact of successive waves of westward expansion on American society and politics is analyzed in light of changing historical interpretations. Major themes include the role of the frontier in American diplomacy and war, the position of Indians and other minorities, the varying population "mix" and interest groups, governmental and institutional policies concerned with the West into the twentieth century.

HIST 403 Interpreting U.S. History 3 credits

Primarily for students with a special interest in American history. The course provides an opportunity to examine, critically, areas in which important reinterpretations have been made or in which controversy exists among scholars.

HIST 425 U.S. Immigration in the Growth of America 3 credits

Exploring John F. Kennedy's theme of "A Nation of Immigrants", the course focuses on the mass migrations which shaped American development into the twentieth century. The causes of immigration—including Old World pressures and New World attractions—the economic and cultural adjustment of the newcomers, and their impact, will be studied in the light of historical evidence. Changing attitudes toward the foreign-born and their Americanization, as well as varying laws and politics, will be included.

C. Asian History

HIST 140 Chinese Civilization 3 credits

The course is intended as a broad review

of the development of the Chinese civilization from ancient to modern times. It examines the "spirit" of each period and the accumulated effect of innovations and changes on the formation of a modern China. The imported elements, as well as the indigenous factors, will be analyzed.

HIST 362 Traditional China 3 credits

The course deals with the China before the Western impact. It analyzes China's religions and philosophies, and government and economics, and finally, family and society. It attempts to bring into focus those aspects of the Chinese civilization that have a direct bearing on our understanding of the Chinese today.

HIST 363 Modern China 3 credits

The course's main theme is the Western impact and China's response to it. Particular attention will be given to the difficulties with which China adjusts herself to a modern, fast-changing world and the developments which finally led her to the Communist road.

HIST 374 Traditional Japan 3 credits

This course traces the social and political development of Japan from earliest times to the coming of Commodore Perry in 1853. Emphasis will also be placed on intellectual history with the students' reading and discussing translated sources of the three major traditions of Japanese thought: Shinto, Buddhism and Confucianism. The growth and continuity of major institutions including the imperial house, feudalism, and a hierarchical social system will be examined in detail.

HIST 375 Modern Japan 3 credits

The course is intended to introduce the history of modern Japan to students who have little or no previous training in this particular discipline. Its main theme is the Western impact and Japan's response to it. Particular attention will be given to Japan's modernization programs, the rise of Japan as an imperialist power, and her recovery from defeat after World War II.

HIST 377 Modern India 3 credits

The course attempts to assess India's efforts since the 18th Century to cope with the coming of the West as seen in the development of nationalism, religious revivalism, social and political change. The course will also examine closely the lives and ideas of some of India's "Great men"—Gandhi, Tagore, Tilak, Nehru, and others. India's modernization will also be assessed.

D. Latin American History

HIST 150 Latin American Civilization 3 credits

This course examines the problems arising from the physical characteristics of the region, the colonial heritage of political instability and rigid social classes, the unique racial mixture, and the contemporary pressures resulting from poverty and the population explosion. It also considers the reasons for the strong anti-Americanism which exists in the area.

HIST 380 Colonial Latin America 3 credits

After a survey of the Ibero-Indian-African background of Latin America, the course goes on to deal with the discovery and conquest of the area; Spain's and Portugal's imperial policies; political, economic and social developments of the colonial society; and ends with the wars for independence.

HIST 381 Modern Latin America 3 credits

The course considers Latin American countries from independence to today. Within the framework of historical chronology, stress will be put on such topics as problems of early nationhood, caudillismo versus modern dictatorships and quest for democracy, difficulties in moving from a colonial to a national economy, and the social tension of a society in transition. Consideration will be given to Latin America in world affairs, especially its relations with the United States.

HIST 382 Puerto Rico, Cuba and the Caribbean World 3 credits

The course offers a survey of Caribbean history from Columbus to Castro, stressing in particular the important changes occurring in the 1950's when the Caribbean became a focal point in the present world struggle of interest and ideologies.

E. Variable Courses: Thematic, Cross-Cultural History; and Methodology

HIST 250 Women's History 3 credits

This course will examine the history of women from the 17th century to the present in European and American history. This is not a course in the history of feminism alone. There will be a complete study of the history of the family and the effects of various revolutions and ideologies on the history of women.

HIST 260 Historiography 3 credits

The development of historical writing; the understanding of history; the historical method; and the practice and theory of historiography. The course is intended for history majors.

HIST 261 Colloquium 3 credits

This course will deal with varied topics of history from year to year. Students will engage in extensive reading on the topic and informal discussions about the readings.

HIST 431 Comparative Revolutions 3 credits

The course will provide a comparative study of revolution as a historical phenomenon. An analysis of various theoretical models of revolutionary change provides the conceptual tools with which to compare revolutions in different historical and cultural settings. While studying the evolution of revolution from the early modern period to the present, major attention will be focused on intensive analysis of selected major revolutions.

HIST 450 Trial of Jesus 3 credits

According to the four gospels Jesus was arrested, tried, crucified and buried within

twenty-four hours. According to some, what is stated in the gospels is divine truth and according to others it is fiction. Even non-believers would grant that what happened or is supposed to have happened in those hours has been the most influential occurrence in our civilization. The purpose of the course is to make the students familiar with the actual words of the gospels and to guide them to form their own opinion as to historical credibility. Agnostic, Marxist, Roman Catholic, Protestant, Jewish interpretations will be considered in order to try to answer the question "What is truth?"

HIST 480 Seminar 3 credits

Especially scheduled in topics chosen and announced by the Faculty. Readings, reports, and papers related to specific topics.

HIST 499 Independent Study 1-3 credits

As approved and to be arranged.

Note: See also courses listed under Humanities.

HUMAN SERVICES — MULTI PROGRAM COURSES

HSA 199 College Symposium 3 credits

For complete description, see page 19 General Education Studies Project.

HSA 300 Women: Changing Roles 3 credits

This course will investigate the current conditions of education of women in America and the assumptions that lie behind them in an effort to gain perspective on the educational experiences of the participants and possibly to formulate some new directions for the society's agencies of education: federal and state policy, politics, and law; the behavioral sciences: language (semantics and literature); media; medicine; schools and child care organizations: the professions and the church.

HSA 301 Discovering Your Teaching Self (K-12) 3 credits

(A Pre-Student Teaching Requirement of the Junior Year)

This course is used in conjunction with SED 340, Exploring the Teaching Field, and is a pre-student teaching requirement. It is designed for self discovery of the subject matter specialist's potential as a teacher, beginning at the elementary school level. The student becomes familiar with 1) aspects of rules, regulations, structure and organizational patterns operating in the schools, 2) the role of the subject matter specialist in the elementary school and the development of an instructional program in a given discipline; 3) the importance of students' needs and interest in preparing educational programs, and 4) aspects of teaching as a career option.

HSA 307 Sex Differences and Discrimination in Education and Work 3 credits

Awareness of sex-biases in our culture will be developed. Methods of eliminating such bias in all areas of employment and education will be explored. Special emphasis will be given to those areas in which prejudice has been predominant.

HSA 400 Modern Approaches to Measurement in the Classroom 3 credits

This course explores those facets of educational measurements that establish assessment of educational outcomes as an integral component of the instructional process. An understanding of objectives, learning experiences and measurement will be developed through directed experiences. The background and current state of the nature-nurture controversy will be analyzed. Uses of measurements to individualize instruction will be stressed.

HUMANITIES

HUM 199 Humanities Honors Seminar I: Representations of Humanity Past and Present 3 credits

(Prerequisite: Permission of Humanities Honors Advisory Committee)

Selected humanistic problems in literature, history and philosophy of the past and present. Semester will be divided into two periods (e.g., Classical, Medieval-Renaissance) with emphasis on representative authors (e.g., Plato,

Sophocles, Dante, etc.). Readings, seminar discussions, guest lecturers and educational films will explore such perennial questions as the interplay of self and society, the value of intelligence, man's place in nature, heroism, etc.

HUM 200 Humanities Honors Seminar II: Representations of Humanity Past and Present 3 credits

Selected humanistic problems in literature, history and philosophy of the past and present. Semester will be divided into two periods (e.g., Age of Revolutions and Twentieth-Century) with emphasis on representative authors (e.g., Bacon, Wordsworth, T.S. Eliot). Readings, seminar discussions, guest lecturers and educational films will explore such perennial questions as the interplay of self and society, the value of intelligence, man's place in nature, heroism, etc.

HUM 300 Humanities Honors Colloquium: 20th Century and Its Discontents 3 credits

An interdisciplinary examination of some specific contemporary cultural issue (e.g. loss of self in modern life, myth-making impact of technology, etc.) Each semester will focus on a different facet of modern consciousness seen through such aspects as creative experience, scientific outlook and existentialism.

HUM 301 Humanities Honors Colloquium: The Enlightenment: Origins of Modern Consciousness 3 credits

An examination of the contribution of the Enlightenment to the development of Modern Western consciousness. An underlying theme will be the similarization of the Judeo-Christian basis of Western civilization by the general application of scientific rationalism as a guiding principle for all spheres of human existence. The course will explore the role of Reason and Sentiment in the development of European cultures of the 18th Century.

HUM 302 Humanities Honors Colloquium: Medieval and Renaissance Culture 3 credits

An examination of the thought, literature,

art and social structure of the Middle Ages and the Renaissance (c. 400-1500). The course stresses those features which are distinctive to this period and those which have influenced the modern world.

**HUM 303 Humanities Honors
Colloquium: Classical
Tradition and Christian
Civilization 3 credits**

A study of the philosophical, anthropological and social concepts of the Greeks and Romans and their impact on Christian Culture. Emphasis on the development of man's identity as an individual in the Classical World.

**HUM 499 Humanities Honors Research:
Independent Study 3 credits**

Independent study and research in an approved subject for the Honors program.

**HUM 1499 Humanities Honors Thesis:
Independent Study 3 credits**

(Prerequisite: Humanities Honors Research)

Independent study with the completion of a written report or its equivalent approved in the Honors program.

ITALIAN

IT 110 Basic Italian I 4 credits

This course is designed for students with no previous knowledge of Italian and aims at developing basic Italian speech patterns. After a thorough study of Italian pronunciation and intonation, the student will develop a basic Italian vocabulary and will learn how to use the Italian verb.

IT 111 Basic Italian II 4 credits

(Prerequisite: IT 110 or one to two years High School Italian)

This course aims at reinforcing and continuing to develop basic Italian speech patterns and at imparting the basic foundations in the four language skills, i.e. understanding, speaking, reading and writing.

IT 112 Intermediate Italian I 4 credits

(Prerequisite: IT 111 or two years of High School Italian or equivalent)

This course is designed for students who have a basic proficiency in Italian. It aims at strengthening the four language skills. Basic language patterns will be reviewed, and new ones will be assimilated through conversation, reading and composition.

IT 113 Intermediate Italian II 4 credits

(Prerequisite: IT 112 or equivalent)

This course aims at strengthening further the four language skills, i.e. understanding, speaking, reading, writing through an essentially audio-lingual approach and the reading and discussion of literary selections.

**IT 230 Twentieth-Century Italian
Literature 3 credits**

A study of the significant trends, major prose writers and poets of modern Italian literature: Pirandello, Silone, Pavese, Montale, Ungaretti and others.

**IT 300 Twentieth-Century Italian
Literature in Translation 3 credits**

A study of selected writers who illustrate the main currents of twentieth century Italian literature: Pirandello, Montale, Moravia, Pavese, Betti, Ungaretti, and others.

LATIN

LAT 110 Latin for Beginners I 3 credits

This course introduces the student to the basic elements of Classical Latin. The student will be exposed to the cultural and historical background of the Romans as a means to understand Roman contribution to our age and culture. It also aims at developing the student's ability to detect the precise meaning of English words derived from the Latin language.

LAT 111 Latin for Beginners II 3 credits

(Prerequisite: LAT 110, or high school equivalent).

This course deepens into the reading and translation of complex forms of Classical Latin and to correlations of structures with the English language. It points out differences between Classical, Vulgar and Medieval Latin, and as a tool to understand the mentality of each age. It also tries to

arouse the student's intellectual curiosity for scholarly work at a more advanced level.

LAT 499 Independent Study 1-3 credits

As approved by the Department.

MATHEMATICS

MATH 101 College Arithmetic 3 credits

Arithmetic covering operations with fractions, decimals, percents and word problems.

MATH 105 Preparatory Algebra 3 credits

Algebra equivalent to high school Algebra I; topics include: simple equations, fractional equations, exponents, and simultaneous equations.

MATH 110 Contemporary Mathematics 3 credits

This course is intended to provide an understanding of the mathematical ideas generally expected of an educated adult. Topics covered include elementary logic and set theory, mathematical systems, and either matrix theory or an introduction to computers (at discretion of instructor).

MATH 120 Finite Math (for Social, Behavioral, and Life Sciences) 3 credits

An introduction to topics from linear algebra and probability theory with emphasis on applications. Topics include elementary set theory, probability, matrices, systems of linear equations, linear programming, and game theory.

MATH 130 Elementary Statistics I 3 credits

The development of statistical concepts, with applications to various disciplines. The course includes descriptive statistics, probability, the normal distribution, sampling theory, elements of estimation and hypothesis testing, t-test, Chi square and correlation.

MATH 131 Elementary Statistics II 3 credits

This course is designed as a follow-up to MATH 130 and will deal with applied topics.

It will expand ideas about statistical inference—for example, problems of estimation and testing of hypothesis involving more than two populations, analysis of variance, inferences about standard deviation, contingency tables and goodness of fit, correlation and regression analysis, and non-parametric methods.

CS 140 Computer Science I 3 credits

Designed to teach students how and why a computer is used. The student will gain the experience of how to program in Fortran (or some other programming language). Simple applications and the most often used mathematical models are included.

MATH 150 Applied Calculus I (for Bio., Bus., Econ., Psych., Soc. Sci.) 3 credits

The essential ideas of the calculus: functions, limits, continuity, differentiation, integration, elementary differential equations. Applications will be stressed. (A knowledge of high school algebra is required; trigonometry is *not* required.) May be followed by MATH 250 to complete one year of calculus.

CS 152 Cobol & Data Processing I 3 credits

Cobol is the most widely used, business oriented programming language. In this course the student will learn what Cobol is, what programming is, and how to use Cobol in typical business data processing applications. No previous background in programming is assumed. The course is taught using a structured programming approach.

MATH 155 Intermediate Algebra for College Students 3 credits

This course offers a continuation of the study of algebra and serves as a preparatory course for the precalculus student. Topics include the real number system; algebraic operations; factoring; exponents, radicals; inequalities; solutions of linear equations; systems of linear equations. (This course should not be taken by students who have successfully completed a second year of high school algebra.)

MATH 156 Precalculus 3 credits

(Prerequisite: three years of college preparatory mathematics or its equivalent)

Relations and functions: linear, polynomial, rational, exponential, logarithmic, and trigonometric; trigonometric equations, complex numbers and roots of polynomials.

MATH 160 Calculus I 4 credits

(Prerequisite: four years of college preparatory mathematics or its equivalent)

Functions and operations on functions; limit and continuity of functions, derivatives, differentiation of algebraic functions and applications, differentials and antiderivatives.

MATH 161 Calculus II 4 credits

(Prerequisite: MATH 160)

Fundamental theorem of the calculus; integration, applications of the integral; exponential and logarithmic functions and their derivatives; trigonometric and inverse trigonometric functions and their derivatives; techniques of formal integration.

MATH 200 Mathematical Logic and Set Theory 3 credits

Logic: The sentential calculus; the predicate calculus (qualified statements); inference and proof.

Set Theory: Axiomatic foundations; partial ordering relations and their graphs; elementary lattice theory; Boolean Algebras and applications to switching, theory; infinite sets; theory of cardinal and ordinal numbers.

MATH 201 Calculus III 4 credits

(Prerequisite: MATH 161)

A continuation of Calculus II. Topics include conic sections, polar coordinates, indeterminate forms, improper integrals, functions of more than one variable, vectors and analytic geometry in three dimensions, partial derivatives, multiple integrals, infinite series.

MATH 202 Linear Algebra 3 credits

(Prerequisite: MATH 161)

Vector spaces, linear transformations matrices, determinants, systems of equations, inner product spaces.

MATH 230 Statistics for Science Majors 3 credits

Measures of central tendency; measures of variation; graphical techniques for univariate and bivariate data; correlation and regression; probability; binomial and normal distributions; Estimation; Confidence interval; Testing of Hypothesis; Nonparametric methods; and analysis of variance.

MATH 231 Applied Statistics 3 credits

(Prerequisite: MATH 130)

Estimation and hypothesis testing of more than two proportions, of difference of means for independent and dependent samples; linear models; correlation and regression analysis; one-way and two-way analysis of variance; non-parametric statistics, Kolmogorov-Smirnov statistic, contingency tables and goodness of fit; measures of association.

CS 240 Computer Science II 3 credits

(Prerequisite: CS 140)

This is an introductory course in the solution of computational problems. The course emphasizes the computer solution of both numerical and non-numerical problems using an algebraic language, and a symbolic manipulation language such as PL/I. Appropriate flow charting and algorithms for the computational solution to each problem are designed and discussed. A survey of computer languages and systems is also included.

MATH 250 Applied Calculus II 3 credits

(Prerequisite: MATH 150)

Selected topics from analysis and applications for students in Bus., Econ., Bio., and Psych: Elementary differential equations, differentials, applications of integration to probability and statistics, functions of several variables and optimization. Lagrange multipliers.

CS 252 Cobol II 3 credits

This course is to study the data processing

systems and the advanced features of Cobol. Topics included are: binary number systems, computer system design, card systems, tape systems, direct access systems, operating systems and job control language; modular programming; structured programming; subprograms and Cobol Compiler supplied sub-programs; report writers, sorting and merging procedures; program debugging; test data; computer security and privacy, RPG/II.

CS 270 Data Base I 3 credits

To teach students to collect, describe and process data and eventually to construct their own format and programs selected for the statistical packages such as BMD, DATATEXT, SPSS and SAS. Topics covered are: execution of traditional statistical programs on chi-square, regression, correlation, factor analysis, analysis of variances, etc.

CS 271 Data Base II 3 credits

To teach students to collect, describe and process data and eventually to construct their own format and programs selected for the statistical packages such as BMD, DATATEXT, SPSS and SAS. Topics covered are: execution of traditional statistical programs on chi-square, regression, correlation, factor analysis, analysis of variances, etc.

CS 280 Computer and Assembler Language 3 credits

(Prerequisite: CS 240)

An introduction to the study of the basic structures and language of machines. Topics included are: Basic Concepts of Boolean Algebra, numbers systems, conversion from one number system to another, machine language, addressing techniques, digital representation of data, filing and retrieving of data, file organization, symbolic coding and assembly systems, use of macros, batch operation and job handling.

MATH 301 Modern Algebra 3 credits

(Prerequisite: MATH 200)

This course includes an introduction to groups, isomorphisms, rings, integral domains, and fields.

MATH 302 Advanced Calculus I 3 credits

(Prerequisites: MATH 200 and 201)

Some basic theorems including nested interval theorem, Bolzano-Weierstrass theorem, Heine Borel theorem, continuity, uniform continuity, differentiation, maxima and minima, Reimann-Stieltjes integral, the fundamental theorem of the Integral Calculus and uniform convergence.

MATH 303 Advanced Calculus II 3 credits

(Prerequisite: MATH 302)

Sequences, series, continuity and differentiation in \mathbb{R}^n , implicit function theorem, topology of the real line.

MATH 318 Mathematics of Personal Finance 3 credits

This course is designed to provide an introduction to the mathematics used in finance. The primary objective is understanding for efficient use in personal and family financial transactions. Topics include simple interest, equations of equivalence, annuities and their applications.

MATH 322 Differential Equations 3 credits

(Prerequisite: MATH 161)

A study of the methods of solution and applications of ordinary differential equations. Topics include: 1st. order equations, existence and uniqueness of solutions, separation of variables, exact equations, integrating factors; linear equations, undetermined coefficients, variation of parameters, Laplace, transforms; series solutions.

MATH 323 Foundations of Geometry 3 credits

Axiomatic and group theory approach to projective, affine and Euclidean geometries; projective geometry from synthetic and analytic view; finite projective geometries and applications to statistics, computer science, etc.; non-Euclidean geometries; matrix methods applied to geometry.

MATH 324 Probability 3 credits

(Prerequisite: MATH 161)

Probability axioms, combinatorial analysis, discrete and continuous sample spaces, random variables, mathematical expectation, probability functions, densities, distribution functions, special distributions, and limit theorems.

MATH 325 Topics from Applied Mathematics 3 credits

(Prerequisite: MATH 322)

Study of topics selected from various branches of mathematics. The mathematical principles and theories involved are applied to problems in the physical sciences and mathematics.

MATH 332 Statistical Computing 3 credits

(Prerequisites: MATH 231 or MATH 131 and CS 140)

The course would require students to solve statistical problems on the computer with the help of statistical packages, such as BMD, SPSS, SAS, DATATEXT, etc. The format would involve student solution of problems using the computer and student interpretation of the output results.

CS 341 Computer Design 3 credits

(Prerequisite: CS 280)

An introductory course to study the internal structure of digital computers. Topics included are: construction of basic digital circuits such as adders, counters, and decoders, the functional description of a digital computer, execution of program instruction, arithmetic unit, machine addition, subtraction, multiplication and division, memory structure, organization and control of input/output facilities.

CS 342 Programming Language and Data Structures 3 credits

(Prerequisite: CS 280)

A course to introduce the elements of programming languages and the basic concepts of data representation. Topics included are: structure of algorithmic languages, discussion of syntax and semantics, arithmetic statements, prefix, postfix and infix notations, concepts of procedures and basic string operation,

string manipulation, data structures in programming languages and table driven manipulation.

CS 360 Computer Calculus 3 credits

(Prerequisites: CS 240, MATH 202 or MATH 120, and MATH 322)

The course emphasizes building algorithms for the solution of numerical problems, the sensitivity of these algorithms to numerical error, and the efficiency of these algorithms. Topics included are: basic concepts of numerical errors, interpolation and quadrature solution of linear systems of equations, eigen values and eigen vectors of matrices, and numerical solutions of simple initial value problems in ordinary differential equations.

CS 361 Combinatorial Computing 3 credits

(Prerequisites: MATH 202, CS 240)

This course is concerned with the problem of how to carry out computations with discrete mathematical structures. It introduces the student to the fundamental concepts and techniques used in solving many combinatorial problems by utilizing computers. Topics included are: representation of integers, sets, and graphs, counting, enumeration, sorting and searching techniques and some graph algorithms.

CS 362 Elements of Computer Simulation 3 credits

(Prerequisites: CS 240, MATH 130 (section for Science Majors), or ECON 210 or PSY 202)

Probabilistic Simulation models: Generation of random numbers, Monte Carlo method and elementary queuing theory. Deterministic simulation models: applications to physical, economic and biological processes. Other non-numerical problems included are searching and sorting techniques and information retrieval techniques.

MATH 380 Mathematical Models and Applications 3 credits

(Prerequisites: MATH 120 or 202)

Mathematical Models: Markov chain

models and applications; Input-output models in Economics; Linear Optimization (linear programming) models and health care, business, and transportation problems; game theory; graph (network) theory and applications.

MATH 399 Selected Topics 3-4 credits

This course offers an opportunity to introduce new topics not presently offered in other courses. The content will change each semester the course is offered.

MATH 401 Applied Algebra 3 credits

(Prerequisite: MATH 200)

Boolean Algebra and applications to switching theory, automata (finite state machines) and Turing Machines, recursive functions and some ideas in theory of computability, groups, rings, polynomial rings, finite fields applied to coding theory: development of binary group codes, Hamming codes, B-C-H codes; relations of geometry and statistical block designs to codes; importance of codes in communications.

MATH 421 Mathematical Statistics 3 credits

(Prerequisite: MATH 324)

Distribution theory, Random sampling, point and interval estimation, maximum likelihood estimation, hypothesis testing, non-parametric tests and Bayesian methods.

MATH 422 Complex Analysis 3 credits

(Prerequisite: MATH 302)

Elements of complex analysis. Topics include complex numbers, analytic functions, Cauchy integral theorem, Cauchy integral formula, power series and conformal mapping.

MATH 423 Real Analysis 3 credits

(Prerequisite: MATH 302)

Riemann integration, measurable sets, measurable functions, Lebesgue integration, metric spaces, completeness and selected topics.

MATH 424 Introduction to Numerical Analysis 3 credits

(Prerequisite: MATH 322)

Treatment of computational techniques of numerical integration, numerical solutions of linear equations, polynomial approximation, iterative solution of non-linear equations and other basic processes of numerical analysis.

MATH 425 Introduction to Topology 3 credits

(Prerequisite: MATH 302)

Topological spaces and their properties; Homeomorphisms and invariant properties; separation and countability axioms; network theory and applications.

MATH 430 Probabilistic Modeling 3 credits

(Prerequisite: MATH 161)

Sample spaces; probability measure; combinatorial principles; independence; conditional probability and Bayes theorem; simple probability models like binomial, poisson, geometric, inverse binomial, normal, etc.; mathematical expectation; Random Walk; Queing Theory; Markov chain; Birth and Death processes; Matching problem.

MATH 499 Independent Study 1-3 credits

As approved and to be arranged.

MUSIC

A. Performing Groups 1 credit

(A placement audition and the permission of the conductor is required. Liberal studies credit will be given to non-majors for participation in these groups.)

- MUS 200 Concert Choir**
- MUS 201 Women's Choral Ensemble**
- MUS 202 College Chorus (no audition)**
- MUS 203 Chamber Singers**
- MUS 204 Men's Glee Club**
- MUS 209 Vocal Seminar**
- MUS 211 Concert Band**
- MUS 212 Preparatory Band**
- MUS 213 College Community Orchestra**
- MUS 214 Brass Ensemble**
- MUS 215 Brass Quintet**
- MUS 216 Woodwind Ensemble — Clarinet**
- MUS 217 Woodwind Ensemble — Saxophone**

- MUS 218** **Woodwind Quintet**
- MUS 219** **Percussion Ensemble**
- MUS 222** **Jazz Ensemble**
- MUS 223** **Chamber Jazz Ensemble**
- MUS 225** **Jazz Rhythm Section**
- MUS 226** **Jazz Guitar Ensemble**
- MUS 227** **Collegium Musicum**
- MUS 228** **Tuba Ensemble**
- MUS 229** **Trombone Ensemble**
- MUS 230** **Classical Guitar Ensemble**
- MUS 231** **20th Century Ensemble**
- MUS 232** **Laboratory Jazz Ensemble**
- MUS 233** **Jazz Vocal Ensemble**

B. Instrumental Classes 1 credit

(Class instruction in basic performance skills on standard instruments. Students already proficient in an instrument are excused from that class. Classes meet two hours weekly for one semester.)

- MUS 101** **Flute and Clarinet**
- MUS 102** **Double Reeds Class**
- MUS 103** **Trumpet Class**
- MUS 104** **Low Brass Class**
- MUS 105** **Violin Class**
- MUS 106** **Low Strings Class**
- MUS 107** **Guitar Class**
- MUS 108** **Percussion Class**

MUS 000 Recital Hour 0 credits

Recital hour is required of B.S. majors for 7 semesters and B.A. majors for 8 semesters. Guest artists, faculty artists, and student performers are featured in this weekly concert series.

MUS 110 Basic Music Studies 3 credits

An introduction to notation, harmony, score reading, analysis, sight-singing, and dictation. For non-music majors, a liberal studies course.

MUS 120 Music Appreciation 3 credits

A course in the development of perceptive listening concentrating on music from the Baroque, Classic and Romantic Periods—A liberal studies course.

MUS 130 Symphonic Music 3 credits

A study of representative European and American symphonies, tone-poems and concertos from the Eighteenth Century to the present—a liberal studies course.

MUS 140 Opera 3 credits

A survey of opera in Europe and America from its beginning to the present. Emphasis is placed on the works of Mozart, Verdi, Wagner and Puccini—a liberal studies course.

MUS 160-161 Freshman Comprehensive Musicianship I and II 3 credits each

Basic musicianship is developed in studies that prepare the student to function artistically and intelligently in a variety of musical situations. Musical literature of all cultures, styles and historical periods is the focus of the course. From this literature is developed a conceptual understanding of such common elements as rhythm, melody, harmony, texture, timbre and form, as well as a comprehensive grasp of their interrelationships as they form the basis for listening, performing and creating. Specific topics included in the freshman year include the following: contrapuntal textures in two and three parts, compositional devices, diatonic harmony in three and four parts, as well as secondary dominants and diminished seventh chords, modulation, analysis and composition of music in the smaller contrapuntal and homophonic forms for various vocal and instrumental combinations.

MUS 180-181 Freshman Ear Training I and II 1 credit each

An integrated course that includes the development of sight-singing, dictation and rhythmic skills. Alto and tenor clefs are introduced during the freshman year.

MUS 162, 163, 262, 263, 362, 363, 462, 463 Applied Music Major 2 credits each

Individual instruction in piano, organ, voice, guitar, percussion, band, and orchestral instruments.

MUS 234 Sophomore Recital Performance 0 credits

(Taken with Applied Music, MUS 263)

MUS 310 Junior Recital Performance I 0 credits

(Taken with Applied Music, MUS 362)

MUS 311 Junior Recital Performance II
0 credits

(Taken with Applied Music, MUS 363)

MUS 464 Senior Recital Performance
0 credits

(B.S. majors take this with Applied Music, MUS 462; B.A. majors take this with Applied Music, MUS 463)

MUS 164-165 Functional Class Piano I and II
1 credit each

This is a beginning course for music majors who do not have keyboard facility. Basic technique is emphasized along with a knowledge of chords. Skills of transposition, improvisation, score reading and simple accompanying are begun at a simple level.

MUS 264-265 Functional Class Piano III and IV
1 credit each

This is the second year of the beginning piano course for music majors who do not have keyboard facility and should not be chosen by keyboard majors. The work of this course continues the development of the skills begun in MUS 164-165 with more advanced work in technique, transposition, improvisation, score reading and accompanying and harmonization styles. Music education students must pass a proficiency test at the completion of Functional Class Piano, MUS 265.

MUS 266-267 Functional Class Piano — Advanced
1 credit each

This special section of Functional Class Piano is for Keyboard Majors and qualified vocal and instrumental majors. The work of the course will assume that the students already possess considerable keyboard facility. The course is designed to develop the skills needed to utilize the piano in school positions, sacred music posts and situations other than the solo recital. The skills to be developed include transposition, improvisation, score reading, a thorough working knowledge of chords and their application to creating accompaniments and arrangements from "lead sheets."

MUS 268-269 Functional Class Piano — Jazz Majors
1 credit each

Students in the Jazz Studies program who are not jazz piano majors choose this section for their second year of the Functional Class Piano. This course continues to develop the skills begun in MUS 164-165 with special emphasis on jazz improvisation, accompanying and harmonization styles.

MUS 166-167 Voice Class I and II
1 credit each

Vocal fundamentals and the practical application in developing and preserving the singing voice. Breath control, resonance, range, diction, vowel formation as related to correct tone production. Sight-reading and interpretation will be stressed. Methods and materials for teaching.

MUS 205, 206, 305, 306 Applied Music Minor
1 credit each

Individual instruction in piano and voice for music education majors.

MUS 207-208 Music History and Literature I and II
3 credits each

(Prerequisite: MUS 161)

The growth of Western music from its beginnings through the first half of the twentieth century.

MUS 220 Jazz History
3 credits

The evolution of jazz from its origins to the present. Emphasis on the various periods and styles of jazz, as well as influential soloists, groups, and composers. Live performances in class.

MUS 260-261 Sophomore Comprehensive Musicianship I and II
3 credits each

The work of the Sophomore year continues the comprehensive development of musicianship by the study of literature in the larger contrapuntal and homophonic forms. Specific areas include chromatic harmony, contemporary harmonic and compositional techniques. Considerable analysis of Romantic and Twentieth Century literature, as well as correlated written projects from the nucleus of this course.

**MUS 280-281 Sophomore Ear Training
I and II 1 credit each**

More advanced work in sight-singing, dictation and rhythmic skills with special emphasis on the techniques required to perform Twentieth Century music.

MUS 270 Jazz Arranging I 3 credits

(Prerequisite: MUS 260 and/or permission of instructor)

Introduction to basic concepts and techniques of contemporary arranging. Study of instrumental ranges and transpositions; symbolization; rhythm section, notation, etc. Four part sectional writing with attention to voice leading, blend and textural effects.

MUS 271 Jazz Arranging II 3 credits

(Prerequisite: MUS 260 and/or permission of instructor)

Expansion of the principles introduced in Arranging I. Instructor will assign specific technical and expressive problems aimed at helping the student develop the writing skill and concepts necessary to realize complete arrangements for a large jazz ensemble.

MUS 301 Form and Analysis 3 credits

(Prerequisite: MUS 261)

Intensive formal, harmonic, rhythmic, melodic and textural analysis of compositions from the Renaissance to the present. Traditional terminology will be covered, but the emphasis will be on empirical analysis.

MUS 302 Arranging 3 credits

(Prerequisite: MUS 261)

A practical approach to arranging for choral and instrumental groups. Deals with the problems teachers will encounter as directors of musical organizations. Voice leading, part distribution, range, transpositions, and musical styles will be studied.

MUS 304 Studies in Music 3 credits

(Prerequisite: MUS 261)

An introduction to musicology in a very broad sense of the term. Readings, library

projects, and research papers will be assigned in the history and sociology of music, music theory, ethnomusicology, musical acoustics, and the aesthetics of music. Basically interdisciplinary, the course will deal with the relationships between these areas and their connections with composition, performance, criticism and pedagogy. Extensive training in the techniques of scholarship, preparation of papers and dissertations, and the use of the library.

**MUS 307 Elementary Conducting
2 credits**

(Prerequisite: MUS 261)

This course presents the basic technique of conducting both with and without a baton. These techniques include: basic beat patterns, preparations, cut-offs, fermatas, tempos, moods, use of the left hand, etc. Each student will conduct using the class as the performing medium.

MUS 308 Choral Conducting 2 credits

(Prerequisite: MUS 307)

This course will develop and refine the basic techniques of conducting acquired in Elementary Conducting. Actual conducting experience will apply these techniques to the specific demands of vocal music. Other areas of study will include: organization and administration of secondary school choral groups, tone and diction, and rehearsal techniques.

**MUS 309 Instrumental Conducting
3 credits**

(Prerequisite: MUS 307)

Basic conducting techniques applied to the media of orchestra and band. Score reading, rehearsal techniques, and interpretation are included in addition to further development of physical skill.

MUS 320 Jazz Improvisation I 2 credits

(Prerequisite: MUS 161 and/or permission of instructor)

A workshop course aimed at helping the student evolve an individual style of improvisation. Emphasis on chord scales; interpretation of chord symbols; notation, transposition; and common jazz figures and patterns. Ear training and analysis of improvised solos.

MUS 321 Jazz Improvisation II
2 credits

(Prerequisites: MUS 161, MUS 320 and/or permission of instructor)

Expansion of concepts and principles introduced in Improvisation I. Emphasis on chord substitution, melodic development; memorization; student jazz compositions, and ear training and analysis.

MUS 322-323 Jazz Improvisation
III and IV 2 credits each

(Prerequisites: MUS 161, MUS 320, MUS 321 and/or permission of instructor)

Continuation of Improvisation II.

MUS 331 Western Music Through
Josquin 3 credits

(Prerequisite: MUS 207)

A detailed study of Western music and its place in society through the death of Josquin des Prez.

MUS 332 Music in the Late Renaissance
and Baroque Periods 3 credits

(Prerequisite: MUS 208)

Analysis, performance and discussion of Western music from the Sixteenth, Seventeenth and early Eighteenth Centuries.

MUS 333 Music in the Rococo and
Classical Periods 3 credits

(Prerequisite: MUS 208)

A study of the music from the sons of Bach through Beethoven.

MUS 334 Music in the Romantic Period
3 credits

An in-depth study of European music and its place in society during the Nineteenth Century.

MUS 335 Choral Literature 3 credits

(Prerequisite: Permission of instructor)

A chronological survey and examination of representative choral compositions from each period of Western music, with emphasis upon style and its relation to performance. This music will be studied in relation to the cultural environment of its time.

MUS 336 Accompanying 1 credit

This course will provide opportunities for upper class and advanced piano majors to study the art of accompanying and to develop potential in this area of piano playing.

MUS 341 Composition Class I 3 credits

(Prerequisites: MUS 161 and permission of instructor)

A workshop course in musical composition. The instructor will assign specific technical and/or expressive problems. All music will be written for instruments or ensembles available in the department, and all works will be performed in class or in concert. No stylistic limitations.

MUS 342 Composition Class II 3 credits

(Prerequisites: MUS 341 and permission of instructor)

A continuation of Composition Class I with emphasis on contemporary styles and techniques; strict and free serial techniques, proportional and other approximate notations, aleatory procedures, polymusic, etc.

MUS 401-402 Twentieth Century Music
I and II 3 credits each

(Prerequisite: MUS 160)

A survey of contemporary music as exemplified by representative works of the leading composers of the century. Detailed analysis of a limited number of works which represent significant stylistic and expressive trends.

MUS 408 Advanced Choral Conducting
2 credits

This course provides for continued study and practice of choral conducting techniques. Emphasis will be placed on developing good vocal tone production in choral groups, style and interpretation in choral literature and program building. Some of the standard larger choral works will be studied.

MUS 410 Maintenance and Repair of
Music Instruments 3 credits

Problems of repair with respect to brass,

woodwind, string and percussion instruments. Laboratory sessions.

MUS 411 Piano Tuning 3 credits

Complete explanation and application of tuning acoustic and electric pianos by the equal temperament system. Problems, procedures, and exploration of standard techniques.

MUS 412 Music Graphics 3 credits

This course will deal with the history, theory, and practices of preparing graphic music copy.

MUS 413 The Music Business 3 credits

This course is to give the student an understanding of business practice as related to the music industry. Topics covered will include: contracts; union regulations; dealing with booking agents; personal managers; publishers and producers; instrument sales; operating a music studio and store; and other assorted survival techniques.

MUS 499 Independent Study 1-3 credits

As approved and to be arranged.

NURSING

NUR 201 Nursing Science I 8 credits

Fall Semester—Sophomore Year

(Prerequisites: BIO 170, 212, 213, PSY 110)

The course deals with historical perspective of the evolution of nursing. Concepts of primary nursing prevention are utilized to promote the health of clients from new-born through adolescence. The theory of adaptation is applied to promote and maintain man's dynamic equilibrium. Through theory, clinical practice, and the nursing process, holistic man's harmonic interaction with his environment is facilitated.

NUR 202 Nursing Science II 8 credits

Spring Semester—Sophomore Year

(Prerequisites: NUR 201, CHEM 164, PSY 210)

This course enhances the scientific knowledge and interpersonal skills which were developed in Nursing Science I. As

the individual moves along the development continuum from young adulthood through senescence and death, emphasis is on application of the Nursing Process in promoting and maintaining harmonic interaction between the individual and the environment. Utilizing this continuum, greater focus is placed on the dynamics of the evolving family. New scientific knowledges and interpersonal skills are introduced and applied in directed individual assignments and selected community experiences.

NUR 301 Nursing Science III 9 credits

Fall Semester—Junior Year

(Prerequisites: CHEM 165, NUR 202)

The theory of adaptation, as it relates to alterations on the health illness continuum, is applied utilizing an interdisciplinary approach. Man's capacity to restore the system's integrity is evaluated through theory and clinical practice. The course focuses on important concepts of physiological and psycho-social maladaptations. In order to incorporate secondary and tertiary preventive interventions, clinical experiences are offered in a variety of settings enabling the student to apply the nursing process.

NUR 302 Nursing Science IV 9 credits

Spring Semester—Junior Year

(Prerequisites: BIO 302, NUR 301)

Continuation of Nursing Science III with specific concepts involving cardiovascular maladaptations.

NUR 401 Nursing Science V 12 credits

Fall Semester—Senior Year

(Prerequisites: BIO 312, NUR 302)

Continuation of Nursing Science IV with specific concepts involving endocrine, metabolic and neurological maladaptations.

NUR 402 Nursing Science VI 12 credits

Spring Semester—Senior Year

(Prerequisite: NUR 401)

Continuation of Nursing Science V with emphasis on the leadership responsibilities of the professional nurse. It

provides the student with an opportunity to apply the nursing process to a group of patients within an acute care agency as well as to the community at large.

PHILOSOPHY

PHIL 110 Introduction to Philosophy 3 credits

An introduction to the representative problems of philosophy ranging from moral dilemmas, religious knowledge, problems of existence, artistic judgment and criticism, methods of inquiry, to political and social philosophy.

PHIL 120 Philosophy of Religion 3 credits

An analytic study of religious beliefs. Emphasis will be placed upon the problems of the meaning and truth of religious utterances; the existence of God; the compatibility of God and evil; the relationship between religion, psychology and morality; and the philosophical adequacy of mysticism, both of East and West.

PHIL 200 Logic 3 credits

This course covers formal techniques in the logic of propositions and predicate logic. Three kinds of deductive derivations: direct derivation, conditional proof, and indirect derivation are considered as well as shorter tests of validity and consistency. This course is recommended for debaters, lawyers, and public speakers.

PHIL 201 The History of Ancient Philosophy 3 credits

The history of philosophy from the Pre-Socrates through Socrates, Plato, Aristotle, the Stoics, the Epicureans, and early Neo-Platonists. Recommended to history majors. Also provides literature majors with the sources of classical intellectual allusions that abound in literature and drama.

PHIL 202 The History of Modern Philosophy from Descartes to Kant 3 credits

This course deals with the 17th and 18th centuries; principally with the problems of: the assimilation of science as faced by

Descartes, Spinoza, and Leibniz; the order of nature suggested by Newtonian science and its effect on Locke, Berkeley and Hume; natural theology in the Enlightenment; the natural rights political philosophy of Locke; the British moralists.

PHIL 205 Eastern Religion 3 credits

A comparative study of the principal religions of the East, past and present; of what is common to many and peculiar to each; and of man's religious feelings and experience.

PHIL 206 Western Religion 3 credits

A comparative study of the principal religions of the West, past and present; of what is common to many and peculiar to each; and of man's religious feelings and experience.

PHIL 211 Existentialism and Phenomenology 3 credits

An examination of such existential themes as death, freedom, responsibility, subjectivity, anguish, time and the self as they appear in both literature and philosophical works. A consideration of phenomenology as one philosophical method which can be applied to such themes. The course will include the works of Sartre, Kierkegaard, Camus, Kafka, Heidegger, and others.

PHIL 230 Philosophy of War and Peace 3 credits

A survey of philosophic literature on the causes of war and peace.

PHIL 307 Theories of Meaning 3 credits

Theories of meaning, signification, language and communication are studied, beginning with the works of the classical English empiricists, and then going to the American Pragmatists and Naturalists (Peirce, Mead, Dewey, Buchler, Randall); the Neo-Kantian, Cassirer.

PHIL 309 Studies in the Utopian Theme 3 credits

(Prerequisite: One prior course in philosophy or permission of the instructor)

A philosophical examination of Utopian thinking about such questions as, "What is the nature of the good life?" "What is the

nature of the good man?" "What is the nature of the ideal society?" Throughout, the emphasis will be on the relevance of past questions and answers to the dilemmas of contemporary society.

PHIL 310 Political Philosophy 3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

This course explores the relation between the state and the individual, asking what obligations and what duties each has to the other. Against the background of Social Contract theory and classic elaborations of the liberal freedoms, it considers acts of civil disobedience and resistance, asking under what conditions (if any) such acts can be justified. Finally, it seeks to inquire into the role of tolerance in contemporary society, asking whether tolerance as an end for society can ever require intolerance as a means.

PHIL 312 Metaphysics 3 credits

Several traditional views, as well as some recent views, of the problem of existence and associated problems will be discussed. This includes the relation between appearance and reality, mind and matter, mind and body, the nature of substance, and personal identity.

PHIL 313 Philosophy in the Middle Ages 3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

An introduction to philosophical ideas of the Middle Ages among Christians, Muslims and Jews. Emphasis on the metaphysics of Augustine, Avicenna, and Maimonides, and the works of Aquinas and Ockham.

PHIL 314 Philosophy of Logic 3 credits

(Prerequisite: One course in logic)

This course will cover selected topics in the history of logic (e.g. from Aristotle's theory of syllogistic up through Tarski's theory of truth (in our own century). The relations between logic and philosophy (e.g. the problems surrounding such modal notions as necessity and possibility), and logic and current linguistic theory will also be dealt with.

PHIL 315 Philosophy of Mind 3 credits

(Prerequisite: One previous course in philosophy)

A concern with the philosophical problems associated with the relations of mind and body, mind and matter, willing and acting; a consideration of some representative solutions ranging from monism, dualism, epiphenomenalism, psycho-physical parallelism and behaviorism. There will also be a consideration of recent research in psychology, neurophysiology, and robot and computer automata studies.

PHIL 316 Philosophy of History 3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

A philosophical examination of historical language and inquiry, the logic of historical development, problems of historical explanation generalization, and value judgments will be considered.

PHIL 317 Theory of Knowledge 3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

An examination of the philosophical issues surrounding the notion of necessary truth, empirical knowledge, a prior knowledge, analytic statements, and related topics. The views of traditional and contemporary philosophers will be discussed.

PHIL 318 American Philosophy 3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

An introduction to American philosophy through reading and examination of some selected writings of the classical American philosophers such as Pierce, James, Royce, Dewey and Santayana; an overview of the more contemporary American philosophical scene.

PHIL 320 Ethics 3 credits

This course is taught in either of two ways: 1) an examination of representative ethical theories ranging from Socrates, Plato, Aristotle, Epicurus, the Stoics, Hume, Kant,

Bentham, Mill, Dewey, and more recent philosophers; 2) the course attempts to develop moral criteria by examining representative moral problems confronting society. An analysis is made of the nature of moral discourse and the meaning of moral terms.

PHIL 321 Philosophy of Art 3 credits

(Prerequisite: One previous course in philosophy)

The examination of theories of art from Plato to Dewey. The roles of inspiration, intelligence, skill, expression, experience, and emotion in the arts will be discussed. Aristotle's *Poetics*, his theory of dramatic production will be of interest to students of literature and drama.

PHIL 322 Mysticism 3 credits

The course offers definitions of mysticism to distinguish it from the occult and the psychic. A description of mystical experiences in psychological terms; an examination of its claims to knowledge. A philosophical interpretation of mystical experience concerning the nature of reality and ethical implications.

PHIL 323 Introduction to Marxism 3 credits

A basic, introductory course in Marxism with special attention to dialectical materialism, the theory of class struggle, alienation and revolution. The writings of Marx and Engels will be considered in terms of their philosophical antecedents and will be subjected to an analysis within the content of the development of philosophical attempts to understand the nature of reality. Issues in epistemology and metaphysics will also be raised.

PHIL 324 Philosophy of Sexual Politics 3 credits

The application of philosophical techniques of analysis to a study of the nature and position of women in contemporary society. Focus will be on critical evaluation of the alternate models for understanding women's oppression. Selected writers include: Betty Freidan, Frederick Engels and Shulamith Firestone.

PHIL 325 Philosophy of Science 3 credits

(Prerequisite: One previous course in philosophy and logic)

The scientific enterprise — as an institutionalized art of inquiry — has contributed to the articulation as well as to the realization of the ideals of a liberal civilization. Science as a way of acquiring competent intellectual mastery over events should be a perennial subject for attentive study. The object of this course is to analyze the logic of scientific inquiry and the logical structure of its intellectual products. It is primarily an examination of logical patterns exhibited in the organization of scientific knowledge as well as of logical methods whose use (despite changes in special techniques and revolution in substantive theory) is the most enduring feature of modern science.

PHIL 326 Plato 3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

An historical introduction to the chief Socratic dialogues. An analytical examination of the key arguments in *Theaetetus*, *Parmenides*, *Sophist*, *Timaeus*, *Symposium*, *Phaedrus*, *Phaedo* and *Cratylus*, as well as other dialogues.

PHIL 327 Aristotle 3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

An introduction to the basic philosophical doctrines of Aristotle with emphasis on the following topics: (in the *Organon*) categories, scientific methodology, and definition, (in the *Metaphysics*) being, substance, potentiality and actuality, casual explanations, (in the *Physics*) theory and movement, place and time, and the prime mover, (in *De Anima*) the concepts of the soul and the intelligences, theories of perception and memory, and (in the *Ethics*) the theories of virtue, deliberation, and happiness. There will also be a study of Aristotle's *Poetics*.

PHIL 330 David Hume and the Sceptic Tradition 3 credits

(Prerequisite: One prior course in

philosophy or the permission of the instructor)

A brief study of the sceptic tradition beginning in the 16th Century up to and including an intensive study of Hume's principal works. Hume's views on "the origin of ideas" meaning, causality, science, induction, the proofs of God's existence will be examined. Also to be examined will be his relation to Locke and other predecessors and his influence on Kant.

PHIL 331 19th Century Philosophy: Post Kantian German Idealism
3 credits

(Prerequisite: One prior course in philosophy or the permission of the instructor)

An introductory study of post-Kantian German idealism as exhibited by Fichte, Schelling, Hegel, et al., and the transformation of, and the reaction against idealism as seen in the writings of Schopenhauer, Marx, Kierkegaard and Nietzsche.

PHIL 332 American Religious Experience
3 credits

A study of current tendencies in American theological doctrine in the 20th century; especially as an outgrowth as a consequence of 19th century romantic revolution in religion. The concept of the social ministry of religion and its spread outside of Protestantism into other religions is examined. Martin Luther King, Jr. and other social activists in other religions are examined.

PHIL 333 Philosophy of Law **3 credits**

This course deals with both the development of law and an analysis of its principles and concepts. The relation of law and morality, law and justice is examined. In addition, the logical principles in legal arguments are also discussed. Various kinds of legal theories, e.g., Natural Law, Legal Positivism, and Legal Realism are discussed.

PHIL 334 The Social Responsibility of Corporate Business **3 credits**

The study of large corporations as quasi-political and as social institutions. Capitalism is examined as a revolutionary

force of the 20th century. Consequences for society implied in the social attitudes that prevail and endure in these institutions are to be examined.

PHIL 336 From Religion to Philosophy
3 credits

The course will cover transition from reliance on prophets, poets, and dramatists to the development of the "wise man," and finally to the philosopher (in matters dealing with human action, inquiry, and artistic products.)

PHIL 337 Greek Political Philosophy
3 credits

The course will cover the development of Greek political ideas from the Homeric age up to and including the historical Polybius. Focal points will be: Sophists, Socrates, Isocrates, Thucydides, Plato and Aristotle. Changes in political ideas will be carefully placed in their historical context.

PHIL 340 Introduction to Inquiry
3 credits

This course will cover methods of inquiry as used in empirical research. Explanation, Hypothetico-Deductive Method, Confirmation, and Types of Inductive Thinking will form the basis of the course. In addition, special attention will be given to utilization of the material covered in the daily outlook and thinking of the student.

PHIL 399 Selected Topics **3 credits**

Study of special areas of philosophic concern. Topics vary from semester to semester in response to student demand and professional interest. Topics are announced in the respective Master Schedules.

PHIL 401 Philosophy of Education
3 credits

(Prerequisite: One prior course in either philosophy or educational theory)

A study of the origin and development of educational ideas and ideals which have shaped the modern American educational system. The contribution of influential philosophers and educational leaders from Plato to John Dewey will be examined and evaluated.

PHIL 402 Advanced Logic 3 credits

(Prerequisite: One prior course in Logic)

This course teaches the nature of a formal deductive system. With respect to such a system, there is concern with the proofs of completeness, consistency, and independence. The equipollence of deductive systems will also be examined. In addition, more advanced notions of predicate logic, multiple quantification, higher functional logic, the logic of relations et al., will be covered.

PHIL 404 Classics in Philosophy, Seminar
in... **3 credits**

This course will deal in depth with a classic work in Philosophy; one of Plato's dialogues, a treatise from Aristotle, Augustine, St. Thomas, or works such as Kant's *Critique of Pure Reason*, Mill's *Utilitarianism*, James' *Pragmatism*, et al.

PHIL 406 The Mystery Religions
3 credits

A study of the religions of the ancient world, particularly the Orphic Mysteries, the Eleusinian Mysteries, the worship of Isis and Osiris, Baal, Sabazius, and Mithra, et al.

PHIL 420 Advanced Ethics 3 credits

(Prerequisite: One course in ethics and the permission of the instructor)

An intensive study of one or two moral problems; an attempt to inquire deeply into some limited area.

PHIL 421 Contemporary Analytic Philosophy 3 credits

(Prerequisite: Logic and one course in the history of philosophy)

A study of the development of an important philosophical movement of the 20th Century, tracing its development from Bertrand Russell through the logical Positivists, Ayer and Carnap; G.E. Moore; Gilbert Ryle; to Ordinary Language Analysis, exemplified by Wittgenstein and Austin.

PHIL 480 Senior Seminar 3 credits

(Prerequisite: Permission of the instructor for those other than senior philosophy majors)

A course designed for philosophy majors. An important philosophical problem, test, or philosopher will be studied in scholarly detail. The topic will be chosen by the instructor and the class. The emphasis will be on preparing students for graduate work. Research and writing will be emphasized.

PHIL 499 Independent Study 1-3 credits

As approved and to be arranged.

Note: See also courses listed under Humanities.

PHYSICAL EDUCATION AND RECREATION

A. Physical Education Courses

PE 100-129 Leisure Time and Recreational Activities 1-2 credits

The following courses are open to all students; archery, badminton, bowling, golf, tennis, fencing, gymnastics, swimming, volleyball, combatives, karate, judo, ballet, modern dance, Afro-Caribbean Dance, folk, square, and ballroom dance, basic movement, personal fitness, horseback riding, orienteering, backpacking, cycling.

PE 100	Target Archery	2 credits
PE 101	Badminton	2 credits
PE 102	Bowling	2 credits
PE 103	Golf	2 credits
PE 104	Tennis I	2 credits
PE 105	Tennis II	2 credits
PE 106	Fencing	2 credits
PE 107	Tumbling and Gymnastics	2 credits
PE 108	Volleyball	2 credits
PE 109	Combatives	2 credits
PE 110	Karate	2 credits
PE 111	Judo	2 credits
PE 112	Ballet I	2 credits
PE 113	Ballet II	2 credits
PE 114	Modern Dance I	2 credits
PE 115	Modern Dance II	2 credits
PE 116	Afro-Caribbean Dance	2 credits
PE 117	Folk, Square, and Ballroom Dance I	1 credit
PE 118	Folk, Square, and Ballroom Dance II	1 credit
PE 119	Basic Movement	2 credits
PE 120	Personal Fitness	2 credits

PE 121	Horseback Riding	2 credits
PE 122	Orienteering	2 credits
PE 123	Backpacking	2 credits
PE 124	Cycling	2 credits

PE 130 Introduction to Art of Dance 3 credits

Elementary technique, improvisation, studies in composition, lectures, films, and discussions on dance philosophy, theory, history, notation, and current trends of dance are studied for the purpose of providing the student with a basic background of the Dance World.

PE 150 Personal Implications of Exercise, Fitness and Rest 3 credits

A study of the general nature and structure of exercise and fitness as it pertains to the individual. The purpose of this course is to assist the individual in gaining an understanding about the effects of exercise, sports, and physical activity upon the physical and psychological self. Emphasis is placed on the physiological, sociological and biological development of the individual student through planning a personal program.

PE 160 Human Movement Activities and Skills I 3 credits

An introduction to physical education which enables the student to understand the basic concepts of human movement. It also includes an orientation to the discipline of physical education and its history. Performance of physical skills is stressed through a battery of tests measuring physical fitness, motor abilities, and rhythmic abilities.

PE 162 Human Movement Activities and Skills II 3 credits

Basic mechanical analysis of the fundamental skills of running, throwing, striking, kicking, and manipulating objects with appropriate ways to practice (drills and lead-up games). Students become familiar with job opportunities through visitations to schools, recreation programs, commercial enterprises, and other allied vocations.

PE 200 Beginning Tennis 1 credit
Students are introduced to the basic skills

of tennis which enable them to play a limited game.

PE 201 Tumbling 1 credit

This course provides a solid foundation for all gymnastic related skills. It nurtures balance and kinesthetic awareness in the student through the medium of gymnastics. The course provides a coeducational activity suitable for students from elementary school through college. Singles, doubles, and group tumbling and balancing, and the use of the springboard and trampoline are utilized for this purpose.

PE 202 Beginning Apparatus (Women) 1 credit

(Prerequisite: PE 201)

PE 203 Beginning Apparatus (Men) 1 credit

(Prerequisite: PE 201)

An introduction to the fundamental movements on apparatus, including experiencing the strength, spatial relation, balance, and cerebral control problems inherent in this activity.

PE 204 Elementary Swimming 2 credits

This course equips the individual with the basic water safety skills and knowledge in order to make one reasonably safe while in, on, or about the water.

PE 205 Intermediate Swimming 2 credits

(Prerequisite: PE 204 or permission of instructor)

The development of a wide variety of skills and knowledge in and around water. All strokes are covered in addition to the elementary forms of lifesaving.

PE 206 Beginning Track and Field 1 credit

Designed to introduce the events in track and field and their technique and performance. The student performs each event to a pre-established criterion.

PE 207 Beginning Wrestling 1 credit

This course is designed to give a person basic knowledge of various takedowns and

offensive and defensive moves. The history of wrestling is discussed as are various exercises, equipment, and rules.

PE 208 Beginning Basketball 1 credit

Development of the basic fundamentals and skills of the game of basketball.

PE 210 Beginning Football 1 credit

Provides future teachers with knowledge and experience in touch and flag football and the basic fundamentals of football as they relate to instructional programs.

PE 211 Beginning Softball 1 credit

Development of proficiency in softball skills and a working knowledge of the rules and strategies of the game.

PE 212 Beginning Baseball 1 credit

Basic fundamentals of throwing, hitting, running, and catching are learned as well as player responsibilities for each position.

PE 213 Beginning Volleyball 1 credit

Designed for students with little or no experience with the game. Fundamental skills, strategy, and rules are learned.

PE 214 Beginning Field Hockey 1 credit

An introduction to the basic skills of field hockey which enables students to play the game with reasonable success.

PE 215 Beginning Soccer 1 credit

Elementary skills, strategies, and rules of soccer are learned by the student.

PE 216 Beginning Fencing 1 credit

An introduction to skills and techniques of foil fencing.

**PE 217 Modern Jazz Dance Technique
2 credits**

Theory and performance of modern jazz dance technique.

PE 221 Archery 1 credit

Development of skill in target archery and a survey of other popular forms of archery.

PE 222 Badminton 1 credit

Development of skill in badminton,

including basic strokes and playing strategy.

PE 223 Beginning Golf 1 credit

(Lab Fee Required)

The development of grip, stance, swing, and putting. Elementary game strategy is experienced.

PE 224 Intermediate Golf 1 credit

(Prerequisite: permission of instructor or grade of "A" or "B" in PE 223. Lab fee required).

Skill development of the swing and stance; fairway and green play are stressed.

**PE 225 Intermediate Track and Field
1 credit**

(Prerequisite: PE 206 or permission of instructor)

Development of track and field skills including sprints, distances, long jump, triple jump, hurdles and throwing events. The organization and conduct of meets and championships are included.

PE 226 Advanced Swimming 1 credit

(Prerequisite: PE 205 or permission of instructor)

Increasing proficiency in advanced strokes and survey of water sports in aquatics.

PE 227 Diving 1 credit

(Prerequisite: permission of instructor or PE 204)

The purpose of the course is to equip the individual with the basic fundamentals of diving. Instruction includes forward, back, reverse, inward and twist dives. The coaching and officiating of diving as it pertains to a competitive situation is also included.

**PE 228 Synchronized Swimming
1 credit**

The student learns to perform modern synchronized strokes and stunts. One will experience swimming in rhythm with others to choreograph routines.

**PE 230 Bowling and Recreational Games
1 credit**

(Lab Fee Required)

Development of performance proficiency in bowling. Recreational games include such activities as shuffleboard, quoits, horseshoes, table tennis, and other related activities.

PE 231 Intermediate Tennis 1 credit

(Prerequisite: completion of PE 200 or permission of instructor)

Development of performance proficiency in tennis is emphasized. Techniques of teaching and analyzing strokes are also included.

PE 233 Advanced Lifesaving 2 credits

(Prerequisite: PE 226 or permission of instructor)

Techniques of rescuing individuals from the water. Instruction of skills in self-rescue and the use of equipment. Advanced lifesaving certificates are awarded upon successful completion of criteria established by American Red Cross.

PE 234 Water Safety Instructor 2 credits

(Prerequisite: PE 233)

The instruction of advanced lifesaving and the nine strokes of swimming. Emphasis is placed on the student's being able to instruct other students in the class. All phases of swimming instruction are covered. Water Safety Instructor Certificate is awarded upon successful completion of criteria established by American Red Cross.

PE 238 Speedball 1 credit

The skills, strategies, and rules of speedball are emphasized in this introductory course.

PE 242 Intermediate Softball 1 credit

(Prerequisite: PE 211 or permission of instructor)

Development of skills, teaching, techniques and performance proficiency in softball. The understanding of the rules and strategies of the game are stressed.

PE 243 Lacrosse (Women) 2 credits

Introduction to the basic skills, teaching techniques, and development of rules and strategies of women's lacrosse. Although, the course is taught according to women's

strategies and rules, it is also open to men.

PE 244 Intermediate Volleyball 1 credit

(Prerequisite: PE 213 or permission of instructor)

The course is designed to offer the student an opportunity to develop the advanced techniques and skills that are necessary to teach the skills in volleyball.

PE 245 Intermediate Field Hockey 1 credit

(Prerequisite: PE 214 or permission of instructor)

Development of skills, teaching techniques, performance proficiency, and understanding of offensive and defensive strategies of field hockey.

PE 246 Intermediate Basketball 1 credit

(Prerequisite: PE 208 or permission of instructor)

Development of skills, teaching techniques, performance proficiency and understanding of offensive and defensive strategies in basketball.

PE 249 Intermediate Football 1 credit

(Prerequisite: PE 210 or permission of instructor)

Prepares students for teaching football in an instructional program. Fundamentals, strategy of offensive and defensive play, and the purchase and care of equipment are studied.

PE 251 Intermediate Basketball 1 credit

(Prerequisite: PE 212 or permission of instructor)

This course stresses development of skills, position responsibilities, conditioning, care and purchasing of equipment. Techniques of teaching baseball in an instructional program are included.

PE 252 Lacrosse (Men) 2 credits

Instruction to the basic skills, teaching techniques and development of rules and strategies in lacrosse. Although the course is taught according to men's rules and strategies, it is open to women.

PE 253. Intermediate Soccer 1 credit

(Prerequisite: PE 215 or permission of instructor)

This course is designed to offer the student an opportunity to develop the advanced techniques and skills that are necessary to teach skills in soccer.

PE 260 Intermediate Apparatus (Women) 1 credit

(Prerequisite: PE 202 or permission of instructor)

An introduction to the intermediate movements on apparatus, including experiencing strength, spatial relations, balance, and cerebral control problems inherent in this activity. Although the course deals specifically with women's apparatus, it is also open to men.

PE 261 Intermediate Apparatus (Men) 1 credit

(Prerequisite: PE 203 or permission of instructor)

Continuation of Beginning Apparatus with emphasis on more advanced stunts, routine composition, and competition rules. Although the course deals specifically with men's apparatus, it is also open to women.

PE 271 Teaching Dance 2 credits

(Prerequisite: PE 114 or PE 112 or permission of instructor)

This course is designed to prepare students to teach dance classes in schools and in recreational organizations. This course deals with the "how" and "why" of dance movement.

PE 282 Intermediate Fencing 1 credit

An expansion of the introductory course marked with more individual instruction, supervised teaching within the class, bouting with standard foils, and some officiating. Students completing this course are ready to teach high school classes in fencing.

PE 283 Intermediate Wrestling 1 credit

(Prerequisite: PE 207 or permission of instructor)

This course is designed to develop advance

moves and counters in wrestling. Different styles of wrestling are demonstrated and students are given an opportunity to apply what they learn.

PE 301 First Aid and Safety 1 credit

The responsibilities and duties of the teacher and coach in the development of safety in relation to physical activities in school and the community are learned. Emphasis is placed on the recognition and response to common first aid emergencies which may confront the teacher.

PE 310 Health and Physical Education Program in the Elementary School 3 credits

(Required for Elementary Education Majors)

This course focuses on the objectives and philosophy of health and physical education programs in today's elementary schools. Content and its relationship to organization and presentation of material will be given. Student lesson plans will be required. Participation by students in a spectrum of physical education activities will take place.

PE 311 Movement Education 2 credits

This course provides the student with a different approach toward teaching where a more individualized program is set up within the larger group (class). Each student will become aware of the basic movements of the body in relation to time, space, and force around his or her own rate according to ability level.

PE 327 Coaching and Officiating Swimming 2 credits

(Prerequisite: PE 226 or permission of instructor)

Fundamentals of aquatic activities through analyzing strokes and teaching procedures; planning and officiating swimming meets; and organization and administration of an aquatic program are learned by the student.

PE 328 Coaching and Officiating Track and Field 2 credits

(Prerequisite: PE 225 or permission of instructor)

Techniques and methods of coaching and officiating. Track and field events are emphasized. Laboratory experiences in officiating and coaching are afforded the student. Evaluation of facilities and equipment is included.

PE 333 Coaching and Officiating Tennis
2 credits

(Prerequisite: PE 231 or permission of instructor)

This course is designed to make students knowledgeable in the process involved in selecting and coaching a tennis team. In addition, the techniques necessary to become a rated tennis official are included.

PE 337 Coaching and Officiating Wrestling
2 credits

(Prerequisite: PE 283 or permission of instructor)

This course is designed to prepare wrestling officials for certification through the classroom and practical application. The areas of team coaching, officiating, recruiting and meet organization are also included.

PE 343 Coaching and Officiating Softball
2 credits

(Prerequisite: PE 242 or permission of instructor)

Techniques and principles of coaching and officiating softball are emphasized along with laboratory experiences for officiating and coaching.

PE 344 Coaching and Officiating Soccer
2 credits

(Prerequisite: PE 253 or permission of instructor)

Techniques and principles of coaching and officiating soccer. Laboratory experiences are provided for officiating and coaching.

PE 345 Coaching and Officiating Field Hockey
2 credits

(Prerequisite: PE 245 or permission of instructor)

Techniques and principles of coaching and officiating field hockey are stressed. Laboratory experiences are provided for officiating and coaching.

PE 346 Coaching and Officiating Basketball
2 credits

(Prerequisite: PE 246 or permission of instructor)

Fundamental and advanced skills as well as theories of offense and defense are learned by the student. Techniques of officiating and organization and administration of basketball team in a high school program are stressed.

PE 349 Coaching and Officiating Football
2 credits

(Prerequisite: PE 249 or permission of instructor)

Prepares students for coaching football in high schools. Fundamentals, strategy of offensive and defensive play, purchase and care of equipment and other administrative problems are emphasized.

PE 351 Coaching and Officiating Baseball
2 credits

(Prerequisite: PE 251 or permission of instructor)

Techniques of coaching, officiating, purchase and care of equipment and playing areas are emphasized.

PE 353 Coaching and Officiating Volleyball
2 credits

(Prerequisite: PE 244 or permission of instructor)

Advanced offensive and defensive team strategy, rules and officiating are emphasized in this course which includes laboratory experiences in coaching and officiating. The student is also exposed to various teaching and evaluating techniques.

PE 360 Olympic and Rhythmic Gymnastics
3 credits

(Prerequisites: One semester ballet; tumbling; and apparatus or permission of instructor)

Advanced skills culminating in the creation of individual routines in competitive events.

PE 361 Coaching and Officiating Gymnastics (Women)
2 credits

(Prerequisite: PE 260 or PE 261 or permission of instructor)

Intended for the future coach and/or judge in women's gymnastics. Film analysis and judging test will be offered. Although this course deals specifically with women's rules and events, it is also open to men.

**PE 362 Coaching and Officiating
Gymnastics (Men) 2 credits**

Intended for the future coach and/or judge in men's gymnastics. Film analysis and judging will be offered. Although this course deals specifically with men's rules and events, it is also open to women.

**PE 370 Folk and Square Dance
Leadership 2 credits**

(Prerequisite: Beginning Folk and Square Dance)

Advanced skills including calling square dances, teaching folk dances, and organizing programs for folk and square dance events.

PE 373 Choreography 3 credits

(Prerequisite: Four credits in Modern Dance and/or Ballet)

Dance composition on a beginning level for teachers, recreation leaders, and performers.

PE 374 Festivals and Productions 2 credits

Preparation of demonstrations and festivals in nontheatrical facilities with emphasis on staging movements for groups, and development or production skills.

**PE 375 Advanced Choreography and
Dance Production 3 credits**

(Prerequisite: PE 373)

Choreography on an advanced level and study of production technique for dance. Field experience choreographing and producing a dance concert.

PE 376 Dance Performance Workshop I 2 credits

(Prerequisite: Permission of instructor)

Performance on an intermediate/advanced technical level and choreography in a

workshop situation. Field experience performing, choreographing and producing a dance concert for educational purposes are emphasized.

PE 377 Dance Performance Workshop II 2 credits

A continuation of Dance Performance Workshop I. The student will take a role of creative leadership in choreography and production.

PE 380 Kinesiology 3 credits

(Prerequisites: BIO 210 and BIO 211)

An analysis of human motion; includes articulation of the various body joints, functions of muscles; the application of principles of mechanics with the analysis of specific activities applied to physical education.

**PE 381 Prevention and Care of Athletic
Injuries 3 credits**

(Prerequisites: BIO 210-211; PE 380)

This course includes lecture and laboratory work concerned with the prevention and care of common athletic injuries. Attention is given to preventing sprains, strains, bruises, friction burns and blisters. Other first aid methods such as artificial respiration, hemorrhage, fracture, unconsciousness are also covered. The responsibilities and legal limitations of treatment are emphasized.

PE 382 Physiology of Exercise 3 credits

(Prerequisites: BIO 210-211; PE 380)

The body's physiological response to exercise with consideration to age, sex, physical fitness and environmental stresses. The laboratory provides experiences that replicate theoretical constructs.

**PE 383 History, Philosophy and Curricular
Constructs in Physical Education 3 credits**

The first section of a sequentially developed two-semester course that enables a student to understand philosophical, historical, and curricular constructs of human movement and physical education.

PE 384 The Teaching of Human Movement and Physical Education 3 credits

(Prerequisite: PE 383)

The second semester of a sequentially developed course that enables a physical education major student to understand a physical education teacher's role in facilitating a student's growth and development through the medium of human movement and movement activities. Also discussed are administrative duties and responsibilities of the physical education teacher. Practicum II in elementary and secondary schools accompanies this course.

PE 385 Organization and Administration of Intra and Extramural Programs 1 credit

This course concentrates on the organization of tournaments, student leadership, budget, and scheduling of co-curricular events. It examines current recommendations and rules governing the amount, type and intensity of competition for different age groups and sexes. Practical experience is gained through organizing and administering tournaments and special events.

PE 386 Rhythmic Activities and Games for Children 2 credits

Activities and approaches to creative movement and basic rhythmic experiences. Games, relays, and related group activities appropriate for children's developmental needs are covered.

PE 387 Kinesthetics 2 credits

This course includes basic movement, perceptual motor activities, and movement exploration. It is a course for those who wish to study in-depth aspects of a creative approach to physical activity.

PE 388 Adapted Physical Education 3 credits

(Prerequisites: BIO 210, BIO 211)

A general study and application of adaptive techniques and procedures for handicapped children in physical education. A practicum is taken concurrently with this course.

PE 391 Practicum I 1 credit

In the pre-student teaching experience, the student is assigned to work in a school for the purpose of observing and assisting the experienced physical educator. Experiences include working with the individuals and small groups and the teaching of the entire class.

PE 392 Practicum II 1 credit

(Prerequisite: PE 391)

This experience in the school is correlated with methods of teaching physical education and human movement. The majority of this experience is devoted to teaching classes and small groups.

PE 393 Physical Education for the Orthopedically Handicapped 3 credits

(Prerequisite: PE 388)

A course designed to familiarize prospective teachers with various types of physical handicaps and to concentrate on exercises, games and activities for the correction or treatment of specific disabilities. A fifteen to twenty hour practicum is involved.

PE 394 Physical Education for the Mentally Retarded 3 credits

(Prerequisite: PE 388)

The course is designed for students to identify cause and nature of mental retardation; to recognize implications for teaching and learning of physical activities; and to practice implementing group and individual physical education programs for the mentally retarded child. Practicum required.

PE 395 Physical Education for the Perceptually Impaired and/or Emotionally Disturbed 3 credits

(Prerequisite: PE 388)

The course is designed for students to identify nature and cause of impairment, to recognize complications for teaching and learning of physical activities; and to practice implementing physical education programs for such persons. Practicum required.

PE 397 Athletic Training Internship I
2 credits

(Prerequisite: PE 381 with a grade of "A" or "B")

This course consists of practical experience in the Athletic Training Room under the supervision of a qualified athletic trainer. Student learns various techniques of treatment and taping, plus the use of basic modalities with whirlpool, infrared lamp, and hydro-collator. A minimum of 200 hours is devoted to this experience.

PE 398 Athletic Training Internship II
2 credits

(Prerequisite: PE 397)

This course is the second practical experience in the athletic training room under the supervision of a qualified athletic trainer. It focuses on advanced techniques of treatment and taping, the use of advanced modalities in diathermy, the medcosonolator, and ultrasound and electrical stimulation. Students apply these advanced techniques by assisting with the athletic teams. A minimum of 200 hours is devoted to this experience.

PE 400 Organization and Administration of Athletics
3 credits

This course is constructed as a coordinator of all courses dealing with the program of athletics with special emphasis on budgeting; scheduling of facilities and athletic events, principles and practices in indoor and outdoor facilities; purchase and care of equipment and supplies, as well as public and professional relations. The emphasis is on the organization of the program and the administration of it in relation to all personnel involved.

PE 404 Seminar in Student Teaching
1 credit

Current trends and development in public education are explored. Particular attention is given to classroom management and other problems which confront student teachers. The course will be conducted during the semester of the student teaching experience.

PE 410 Psychology of Sport
3 credits
(Prerequisite: PSY 110)

A study of generally accepted psychological concepts as they apply to physical education, recreation and coaching. With the growing pronounced emphasis on psychological principles, this course is designed to enable the student to gain an understanding to those principles and how they might be applied to improve performance in sport and gain a deeper understanding of the human organism's relationship to movement.

PE 411 Concepts and Principles of Motor Learning
3 credits

This course is designed to acquaint the student with the concepts and principles involved in motor learning with particular consideration of the implications for teaching.

PE 412 Sociology of Sport
3 credits

The study of sport in relation to the concepts, theories, and principles of sociology. This course is designed to give the student a better understanding of the relationship of sport to culture and society; how human movement and sport affects and reflects a culture; and how it functions as an institution in society.

PE 415 Advanced Athletic Training
3 credits

(Prerequisites: PE 381, 393, HSC 320)

Lecture and laboratory experiences concerned with care and prevention of athletic injuries using advanced techniques of treatment and rehabilitation. It also includes professional ethics, measurement and evaluation, current research, advanced exercise techniques, and advanced taping techniques.

PE 470 Tests and Measurements
3 credits

The study of the role of and evaluation in physical education. The organization and administration of a testing program will be discussed as well as appropriate statistical methods to use in a testing program.

PE 480 Senior Seminar
3 credits

Designed as an elective course for senior majors. Specialized subjects in physical education and recreation are developed by the instructor and the student.

PE 497 Athletic Training Internship III
2 credits

(Prerequisite: PE 398)

An advanced practical experience in which the student combines all the skills and techniques of Internship I and II. He/she will be able to function as the primary sports trainer for a team other than football. This experience also includes the selection, construction and fitting of orthotics. Minimum of 200 hours will be devoted to this experience.

PE 498 Athletic Training Internship IV
2 credits

(Prerequisite: PE 497)

Culminating practicum in which the student will serve as an athletic trainer in a designated local high school in cooperation with the local supervisor and the college supervisor. Minimum of 200 hours will be devoted to this experience.

PE 499 Independent Study 1-3 credits
As approved and to be arranged.

B. Recreation and Leisure Studies Courses

REC 110 Foundations in Leisure Studies
3 credits

A study of the nature, scope, history, and philosophy of recreation, its meanings, the services rendered in various settings, the relationship to allied disciplines and its scientific foundations.

REC 290 Camp Counseling 3 credits

A study of the nature and duties of counseling in private, municipal, and organizational camps. Techniques of group work and the planning, organizing and executing of programs are included.

REC 291 Recreational Leadership
3 credits

A study of the methods, materials and skills necessary for persons preparing to assume leadership roles in recreation programs.

REC 292 Programs in Recreation 3 credits

The study of public, voluntary, and private recreation programs sponsored by governments, education, industry and

other organizations. Considerations will be given to administration, financial support, facilities and leadership.

REC 300 Introduction to Therapeutic Recreation 3 credits

The course is designed to provide an in-depth study of therapeutic recreation for the ill and handicapped in various settings. Emphasis will be on the role of recreation as a means of therapy in rehabilitation in these settings. Internship experience is undertaken.

REC 305 Community Recreation
3 credits

A study of community recreation with emphasis on history, theory, and philosophy; governmental involvement; other social institutions; and current principles and practices.

REC 306 Recreation Facilities and Management 3 credits

A study of the design and management of facilities and areas for leisure enjoyment, including use of existing facilities, feasibility studies, site selection, principles of planning, construction and maintenance procedures.

REC 307 Social Recreation 3 credits

The course stresses the acquiring of knowledge and understanding of various social recreation programs and activities.

REC 310 Recreation for the Aging
3 credits

A study of the characteristics and needs of the aging and how recreation programs can best meet these needs. Internship experience will be provided.

REC 390 Field Work in Recreation
3 credits

An internship for the student to observe techniques of and practice in a recreational setting. The student is assigned to a recreation program.

REC 400 Organization and Administration of Recreation
3 credits

The exploration of major problems and

practices in the organization and administration of recreational programs in various settings.

REC 481 Recreation for Adults 3 credits

A study of characteristics and needs of older persons and how recreation programs can best meet those needs. Research and practical experience in working with older citizens in a community will be a major part of the course.

REC 482 Leisure Crafts and Activities in Recreation 3 credits

A study of leisure crafts through creative activities with a multiplicity of craft media. Course focuses upon program implementation with various types of groups.

PHYSICS — EARTH SCIENCES

A. Physics Courses

PHYS 110 Introduction to Physical Science 3 credits

This course is designed to give the non-science student an adequate understanding of the nature of science and of the fundamental physical laws which govern our everyday lives. Topics include forces, motion, heat energy, electricity, atomic energy, and fundamental ideas in chemistry. Laboratory work is closely integrated with the above topics.

2 hours lecture, 2 hours lab

PHYS 165 Energy and Earth's Natural Resources 3 credits

This course concerns itself with the energy demand in human development. It considers the availability and use of energy resources such as oil, natural gas, solar energy and fission fuels. The way in which hydro, thermal and nuclear forms of energy are converted into mechanical and electrical energy is studied. Proposed and speculative methods of meeting the energy crisis and their environmental impact are considered.

3 hours lecture

PHYS 250-251 Basic Electronics I and II 3 credits each

(Prerequisite: PHYS 110, or permission of instructor)

The general philosophy of electronics as a "way of life" and its function as a basic tool in our present scientific culture is explored. The fundamentals of electronics including basic components and circuit configurations are examined. Actual circuits are assembled, tested and their behavior explored in the electronics laboratory. A descriptive laboratory course in basic electronic circuits without the use of extensive mathematics.

2 hours lecture, 2 hours lab

PHYS 255-256 College Physics I and II 4 credits each

An introductory physics course designed for those students who do not intend to specialize in the physical sciences. It requires no mathematics beyond algebra and geometry as prerequisites. The course will enable the student to discover through his own experimental work in the laboratory and through class discussions, lecture and demonstration, the underlying principles and basic laws of Newtonian mechanics, electromagnetism, and modern physics.

3 hours lecture, 3 hours lab

PHYS 260-261 General Physics I and II 4 credits each

(Corequisites: MATH 160 and MATH 161)

This is the basic course for physics, chemistry and mathematics majors and a foundation for all advanced work in physics. Topics covered include introduction to vectors, statics, kinematics, work and energy, impulse and momentum, rotational motion, elasticity, harmonic motion, sound and acoustics, electrostatics, DC and AC electric circuits and instrumentation, magnetostatics, electromagnetic waves, geometrical and physical optics, polarization and an introduction to modern physics.

3 hours, lecture, 3 hours lab

PHYS 270 Sound and Acoustics 3 credits

(Prerequisite: PHYS 110 or approval of instructor)

This course is intended primarily for music majors and liberal arts students interested in music. The course shows how the theory of sound is utilized in sound production,

reproduction and reception as related to music, musical instruments, associated electronic equipment including microphones and loudspeakers. Topics include sound waves, modes of wave generation, reception frequency and pitch, scales, tuning and temperament, acoustics, production of musical sounds by instruments and by electronic methods.

3 hours lecture/demonstration

PHYS 300 Mechanics 4 credits

(Prerequisites: PHYS 260 and PHYS 261;
Corequisite: MATH 319)

This course covers the basic concepts in mechanics as required for advanced work in physics. Topics include mathematical formulation of mechanics utilizing vector analysis, particle dynamics, systems of particles, translational and rotational movement of rigid bodies, angular momentum and energy considerations.

3 hours lecture, 3 hours lab

PHYS 301 Thermal Physics 3 credits

(Prerequisite: PHYS 300)

The basic concepts and equations of thermodynamics are reviewed. Topics include basic thermodynamic systems, first and second laws of thermodynamics, heat transfer, ideal gases, reversibility and irreversibility, Carnot cycle and applications, entropy, steam engines, refrigerators and special systems, applications to low temperatures, introduction to kinetic theory of gases, distribution, and statistical mechanics.

3 hours lecture

PHYS 302 Electricity and Magnetism 4 credits

(Prerequisite: PHYS 300)

This is a basic course covering the fundamental concepts of electricity and magnetism. Topics include vector mathematics, electrostatics, solution of electrostatic problems, dielectric materials, circuitry and solution of networks, magnetostatics, electromagnetic induction, magnetic materials, atomic origin of magnetism, ferromagnetic materials, and introduction to field theory.

PHYS 304 Optics 4 credits

(Prerequisite: PHYS 302)

Theoretical and experimental aspects are emphasized. Topics include reflection and refraction, plane and spherical surfaces, thin lenses, field stops and aperture stops, ray-tracing, aberrations, optical instruments, nature of light waves, superposition and interference, Fresnel and Fraunhofer diffraction, diffraction gratings, Cerenkov radiation, polarization, nature and origin of polarization.

3 hours lecture, 3 hours lab

PHYS 400 Electromagnetic Fields and Radiation 3 credits

(Prerequisite: PHYS 302)

The Maxwell equations are developed and analyzed, the wave equations are developed and applied to free space, perfect and imperfect dielectrics and conductors. Scalar and vector potentials are formulated. The Laplace and Poisson equations are developed and applied to typical configurations. Boundary value problems, including wave guides and cavity resonators are studied and an introduction to radiation theory is given.

3 hours lecture

PHYS 403 Modern Physics I 4 credits

(Prerequisite: PHYS 300)

Spectroscopic and other representative phenomena that form experimental foundation of modern physics are reviewed. Topics include special theory of relativity, dual properties of electromagnetic radiation, Young's diffraction, blackbody radiation, photoelectric effect, Compton effect, specific heats, Frank-Hertz experiment, Rutherford scattering, Bohr's atomic model, quantum mechanical description of a particle, and elementary theory of nuclear structure and reactions.

3 hours lecture, 3 hours lab

PHYS 404 Modern Physics II 4 credits

(Prerequisite: PHYS 403)

Fundamental principles and applications of quantum mechanics are studied. Topics

include derivation of Schrodinger's equation, mathematical properties of wave functions, its applications to simple atomic structure, to potential barrier problems, to perturbation theory, to anomalous Zeeman effect, and to band theory of conduction electrons.

3 hours lecture, 3 hours lab

PHYS 410-411 Electronics I and II
4 credits each

(Prerequisites: PHYS 260, 261)

This is an applied course emphasizing the experimental nature of electronics. Topics include DC and AC circuits, voltage and current regulators, special circuits, semi-conductor circuit elements, kiodes and transistors, transistor circuitry, negative feedback and applications, oscillators, switching circuitry, wave-form generators.

3 hours lecture, 3 hours lab

B. Earth Science Courses

PHYS 120 Physical Geology 4 credits

The course covers the nature and structure of the earth, the materials composing it, its place in the solar system, and the forces operating on and within it. Consideration is given to plate tectonics, sea-floor spreading, the origin of mountains and volcanoes, the cause of earthquakes, and the work of running water, wind, waves, glaciers and ground water. In the laboratory and through field trips, the student becomes acquainted with common rocks and minerals, the use and interpretation of topographic maps and aerial photographs, and the work of the various geological processes which change the landscape.

3 hours lecture, 3 hours lab

PHYS 150 Meterorology 3 credits

This course deals with weather changes. Topics covered include the structure and composition of the atmosphere, the sun's effect on weather and climate, and the processes within the atmosphere. Study is made of air mass movements, fronts, and tropical and extratropical storms. In the laboratory, the student will become familiar with the instruments used in

weather observation, forecasting, and the study of daily weather maps.

2 hours lecture, 2 hours lab

PHYS 215 General Geology 3 credits

A course for the non-science student that includes the study of the origin and evolution of the earth, the rocks and minerals that compose it, the geological processes that are constantly changing it, the origin and evolution of plants and animals that live upon it, and the role of geology in shaping man's environment. Laboratory and field trips will introduce rocks, minerals, fossils, maps and landscape features.

2 hours lecture, 2 hours lab

PHYS 220 Historical Geology 4 credits

(Prerequisite: PHYS 120)

The study of the origin and evolution of the earth and life as revealed by the geological record in the rocks. This includes the concepts of plate techonics and sea-floor spreading, the origin, growth, and drift of the continents, the rise and fall of mountain ranges, the advance and retreat of the seas and glaciers, and the evolution of plants and animals as shown by the fossil record. By means of lectures, field trips, and laboratory exercises involving the use of geological maps, cross-sections, rock and fossil specimens and other materials, the student becomes acquainted with the geological history of the earth with major emphasis on North America.

3 hours lecture, 3 hours lab

PHYS 225 Mineralogy and Petrology
4 credits

(Prerequisites: PHYS 120, CHEM 160, CHEM 161 or permission)

The introduction to crystallography, morphology, and physical properties of minerals as related to their crystal structure and chemical properties and the identification and classification of the more important rock-forming and ore-forming minerals. The origin, composition, and classification of igneous, sedimentary, and metamorphic rocks with emphasis on the geological interpretations that can be made from their occurrence. In the laboratory, the

major emphasis will be on an identification of rocks and minerals, particularly those of economic or environmental significance, and the study and classification of specimens collected on field trips.

3 hours lecture, 3 hours lab

PHYS 227 The Geology of New Jersey
3 credits

(Prerequisites: PHYS 120, PHYS 220)

This course deals with the geological materials and processes which have formed the land features that are evident in New Jersey and its surrounding environs. Emphasis will be placed on field trips and laboratory work. Study of the Palisades sill, the Watchung and the Ramapo Mountains, glacial moraines, and the Appalachian geosyncline.

2 hours lecture, 2 hours lab

PHYS 315 Introduction to Oceanography
3 credits

(Prerequisite: 1 year of Science or permission of instructor)

This course will include the study of the origin, evolution and extent of the oceans; waves, currents, tides, and tsunami; the plant and animal life of the sea, the nature and topography of the sea floor; recent discoveries relating to sea floor spreading and continental drift; the role of the oceans in weather and climate.

2 hours lecture, 2 hours lab

PHYS 320 Paleontology
3 credits

(Prerequisite: PHYS 115 or PHYS 220)

This is a systematic survey of the morphology, ecology, taxonomy and geological history of major groups of organisms commonly occurring as fossils. Major emphasis is placed on the invertebrates. Laboratory work includes common fossils, identifying unknown specimens, and the use of the faunal assemblages in the interpretation of the geological record. Trips to nearby areas.

2 hours lecture, 2 hours lab

PHYS 325 Environmental Geology
3 credits

(Prerequisite: PHYS 120 or permission)

Environmental geology deals with the relationships between man and his geologic environment, the earth. It is concerned with the problems that arise from man's use of the earth, and the reactions of the earth to that use. Attention is given to such natural hazards as floods, landslides, earthquakes, and related features and to the occurrence and use of earth materials such as rocks, minerals, soils, and water as resources or waste disposal sites. By means of laboratory exercises and field trips, the student becomes involved in the evaluation of the landscape for site selection, land-use planning, and environmental impact analysis with major emphasis directed to those problems which arise in urban and suburban areas where the use of the earth is most intense.

2 hours lecture, 2 hours lab

PHYS 327 Geomorphology
3 credits

(Prerequisites: PHYS 220 and PHYS 225 or permission of instructor)

Geomorphology is the science of landforms, the features of the surface of the earth that make up the landscape. The course provides an understanding of the nature, origin, and evolution of landscapes and materials at or near the surface of the earth and the processes which bring about these changes. Attention will be given to the mechanics, dynamics and chemistry of these processes, and a quantitative approach will be taken at the elementary level. The nature and properties of soils and the role of man and his activities will also be considered. Through the use and interpretation of topographic and geologic maps and aerial photographs in laboratory exercises and field trips, the student will gain an understanding of landscape evolution and development.

2 hours lecture, 2 hours lab

PHYS 329 Stratigraphy and Sedimentation
3 credits

(Prerequisites: PHYS 220 and PHYS 225 or permission)

The origin, occurrence, and classification of sedimentary rocks, recognition of depositional environments, introduction to the methods used in stratigraphy and geochronology, and the use of

sedimentary structures in the interpretation of the geological record. Laboratory work will stress the megascopic classification of common sedimentary rocks and minerals and the use and interpretation of lithofacies, isophachous, and paleogeographic maps and cross sections. Field trips will be made to areas of interest in New Jersey, New York and Pennsylvania.

2 hours lecture, 2 hours lab

PHYS 420 Structural and Field Geology 4 credits

(Prerequisites: PHYS 225 and PHYS 255-256 or PHYS 260-261 or permission)

Structural geology deals with the architecture of the rocks which make up the earth and field; geology is concerned with the recognition, mapping, and interpretation of the geological features of the landscape. Introduction to the origin of structures, structural development, and the nomenclature, graphic portrayal, and interpretation of igneous, sedimentary, and metamorphic structural features. Through the use of maps and cross sections, aerial photographs, and the Brunton compass and other instruments in the laboratory and on field exercises, the student will become acquainted with the solution of geological field problems.

3 hours lecture, 3 hours lab

C. Astronomy Courses

PHYS 170 General Astronomy 3 credits

A trip from the earth to the edge of the universe. A non-mathematical study of our nearest star, the Sun, with its planets and their moons. Star counts and the structure of our island universe of stars and dust and gas. Readings on the "Big Bang" Theory which scattered thousands of galaxies at fantastic speeds. This course is not open to students who intend to take or have taken any other astronomy course.

2 hours lecture, 2 hours lab

PHYS 222 Solar System 3 credits

This course is designed to explain clearly the nature of our earth as a planet. Its seasons and motions are made simple by

use of the celestial globe, and a study is made of conditions on the sun, the moon and the planets. Brief biographies of the men who have made significant advances in the sciences are presented as well as some mythology and literature relating to the skies. Monthly laboratories are held after nightfall (optional) to view the brighter constellations, the more important nebulae and clusters, and the moon and planets through the telescope. This course is planned as a cultural experience for all students. Mathematics is held to a minimum.

2 hours lecture, 2 hours lab

PHYS 333 Stars 3 credits

A study is made of the sun as a star in the Milky Way galaxy. Topics covered include eclipses, multiple stars, variable stars, gaseous nebulae; theories concerning composition, origin and evolution of the universe. This is a cultural course for all students with a minimum of mathematics.

2 hours lecture, 2 hours lab

D. Variable Courses (Seminars, Independent Studies)

PHYS 489 Seminar 1 credit

(Prerequisite: permission of instructor)

Emphasis is placed on research, current literature and classroom discussion of new ideas.

PHYS 499 Independent Study 1-3 credits

As approved and to be arranged.

POLITICAL SCIENCE

POL 110 Introduction to Politics 3 credits

This course consists of an inquiry into the nature, methodology, and subject matter of politics. Basic ideas and problems in the field of politics—value-free inquiry, freedom, authority, justice, equality, alienation, revolution and change, rights and obligations—are examined in their philosophical and practical socio-economic setting. The various ideologies, such as capitalism, fascism, socialism, and communism, are also examined for their theoretical and practical usefulness. Attention is also given to

contemporary crises, e.g., Vietnam, inflation, Watergate, political violence and repression to show the interrelationship of domestic and international politics.

POL 120 American Government and Politics 3 credits

Analysis of the structure and function of the basic institutions of American Government is presented. The cultural setting, the constitutional foundations, and the policy-making processes are examined in detail; consideration is given to the question of the growing concentration of power in our society and the implications of such major crises as Vietnam, inflation, and Watergate on future American politics.

POL 130 Black Politics in America 3 credits

An examination of the various political movements within the Black community and their relationship to both the Black and White communities is undertaken. Movements toward social and political integration, ghetto problems, and black power are analyzed. The power structure within the Black community is examined from the internal and international perspective.

POL 140 Politics and Sex 3 credits

A course designed for liberal studies and political science majors. Women and men in contemporary society are moving away from their traditional roles toward new personal and professional opportunities, resulting in unprecedented changes in thought and behavior. The examination of the implications of these newly emerging societal relationships for the social, economic and political structure of our society is critical to understanding American politics.

POL 200 Classical and Medieval Political Theory 3 credits

This course analyzes, in depth, the political ideas of important classical and medieval philosophers and schools of thought: pre-socratic materialistic philosophy; Platonic and Aristotelian idealisms; post-Aristotelian Epicurean, Stoic and Cynic philosophies; Roman political and legal theory; early Christianity as a social movement; and Augustinian-Thomistic

theocratic philosophy. Ideas on justice, authority, rights and duties, equality, laws and constitutions, and the "Good Life" are given an analytical and historical perspective.

POL 201 Early Modern Political Theory 3 credits

This course deals with the development of political theory from the inception of the modern state. Emphasis is given to concepts such as natural law and natural rights, state and sovereignty, individual rights and the community. Selected political thinkers, such as Machiavelli, Hobbes, Locke and Rousseau, Hegel and Marx are given particular attention and are placed in historical perspective.

POL 202 American Political Theory 3 credits

This course will study American political theory from its origins in English liberalism to the present day. Evaluation of the American political tradition in contrast to major political ideas of Europe and in terms of the uniqueness of the American historical inheritance and the American environment shall be particularly emphasized and examined.

POL 220 Political Economy of the United States 3 credits

An interdisciplinary study of the political and economic problems of contemporary America. The disciplines of Political Science and Economics will be focused on such mid-20th century issues as equality, fiscal and monetary policies militarism, regulated industries, etc. to deepen and broaden the students' understanding of such problems.

POL 221 State and Local Government 3 credits

This course consists of a study of the American system of Federalism through consideration of dynamics of government in the fifty states and their relationship to national and local governments with special emphasis on New Jersey. Attention is given to the executive, legislative and judicial organizations and to the performance of governmental functions within a political framework.

POL 222 Politics of the Environment
3 credits

An examination of the responsibility and powers of the legislative and executive branches of government at the local, state, interstate, and national levels regarding environmental problems, their solutions and enforcement. Emphasis also will be given to the impact on government at all levels by both supportive and non-supportive public opinion and interest groups.

POL 224 Political Parties **3 credits**

A study of the organization and operation of political parties in the United States is presented. Attention is given to the American party system and structure, the role of ideology, voting behavior, campaigns and elections, and party devices for organizing the government. The influences of pressure groups on political parties is also examined.

**POL 230 Comparative Politics:
Development and
Modernization** **3 credits**

This course is designed as an introduction to the field of comparative politics. It emphasizes a critical analysis of the principal approaches and models currently employed by political science (structural-functionalism, systems analysis, conflict and dependence theory) in an attempt to understand the process of political change and the variegated political systems of the world.

POL 232 Politics of the Third World
3 credits

There will be a comparative analysis of selected transitional political systems in Latin America, Africa, and Asia. The general problems arising in the transition from traditional societies to modern industrial states are examined to describe the typical patterns of political change. The role of the Third World in world affairs is also studied.

POL 238 Politics of Africa **3 credits**

A comparative study of African political systems. Topics such as the impact of colonialism, independence and the new challenges, and political patterns in the

post-independence period are undertaken. Consideration is given to the nature of ethnic fragmentation, the role of the military in politics, and the meanings of the concepts of modernization and regional integration.

POL 240 International Relations
3 credits

This course consists of a study of the nation-state system, the struggle for power, the changing patterns of the international system, and the basic influences shaping the foreign policy of states. Major approaches to the study of international relations are also analyzed.

POL 241 War and Peace **3 credits**

This course will study the origins of war and the quest for peace. The economic and psychological drives behind wars, weapons, systems and international "security" through armaments will be analyzed. The justifications and nature of armed aggression-global, "limited" and guerrilla will be treated. Coexistence; détente; deterrence; disarmament; arms limitation and nuclear proliferation will be considered in detail. The illusion and/or reality of peace will be discussed. Alternatives to armed conflict will be studied.

**POL 250 Public Administration: The
Administrative Process**
3 credits

A critical analysis of administrative agencies and their influence on public policy; evaluation of the role of the bureaucracy in contemporary government and the relationships of administrators with the Courts, Congress, the Presidency, pressure groups, and the public; emphasis on case studies to illustrate the behavior of administrators in the development and execution of public policy is pursued.

POL 254 Urban and Suburban Politics
3 credits

A theoretical and empirical analysis of the distribution of political power in both central cities and suburban areas will be among the topics considered. Additional topics to be discussed are varieties of political party organization, community power structures, management of race,

class and ethnic conflicts, delivery of local public services, and emerging forms of metropolitan and regional cooperation.

POL 310 Political Socialization 3 credits

(Prerequisite: POL 110 or permission of instructor)

This course deals with one of the continuing and central themes of political theory—how citizens are inducted into their politics. The concept of political culture is subjected to a close and critical examination and major attention is devoted to the processes, agents and transmission belts through which political values and attitudes are formed and communicated to succeeding generations. Individual and systemic consequences of the political socialization process and its implications for stability and change are examined.

POL 320 Politics of Poverty 3 credits

This course will serve as a bridge between a political analysis of poverty in America and the administration of poverty programs. Focus is on the political implications of the various definitions of poverty and the poor; the ideologies of poverty warriors; constraints on policy making for poverty programs; and the origins and administration of poverty programs. Specific policy recommendations will be analyzed.

POL 322 The American Presidency 3 credits

This course consists of a study of the origins and evolution of the Presidency to its present form. The role of the President as a symbol of national unity, political leader, administrative chief, legislative moderator, commander-in-chief, and director of foreign affairs is analyzed. Attention is given to the growing pains of and the resulting challenges to the modern Presidency.

POL 324 Constitutional Law: The Judicial Process 3 credits

(Prerequisite: POL 120)

An analysis and examination of U.S. Supreme Court decisions in such areas as judicial review, scope of Federal power, Federal-state relations, commerce taxing

and spending, regulations of economic and property interests, and other sources of legislative and executive power is presented. Cases are used to examine the interaction between the courts and significant social, political and economic trends in American life.

POL 326 Constitutional Law: Civil Liberties and Civil Rights 3 credits

(Prerequisite: POL 120)

Leading decisions of the U.S. Supreme Court are analyzed and discussed with special attention given to the development of due process; the court as arbiters of intergroup relations; the rights of the defendant; the guarantees of personal security; national security and the position of the individual; First Amendment interpretations; and the problems of implementing civil rights for the Black community and other minority groups.

POL 332 European Political Systems 3 credits

This course will strengthen the student's understanding of comparative politics and modern political analysis through the systematic and comparative study of the political systems of Western Europe and the Soviet Union.

POL 334 Communist Political Systems 3 credits

This course consists of a comparative analysis of the Communist political systems in theory and practice. The student is exposed to the ideology, the development of communist regimes, the party organization, and the economic and social policies of countries in Eastern Europe and selected countries in other parts of the world.

POL 335 Politics of the Soviet Union 3 credits

This course studies the Soviet political system with an analysis of the Russian and Marxist-Leninist traditions leading to the creation of the Soviet party-state, the role of the Communist party as an instrument of power, the politics of succession, the police, the economy, and the social and cultural life. Comparison of the Soviet with other political systems is also undertaken.

POL 337 Politics of Latin America
3 credits

(Prerequisite: At least one previous course in Political Science)

This course is an examination of the nature of Ibero-American politics and the reality of current political institutions and movements in this Third World area. Such topics as Militarism, Class and Race, The New Nationalism, The Church and U.S.-Latin Relations will be covered. Cuba, Argentina, Brazil, Chile and Uruguay will be among the individual countries discussed and analyzed.

POL 341 International Organizations and Multinational Corporations
3 credits

This course analyzes the origins, development and functions of the United Nations' system. In addition, to "universal" organizations like the U.N., "supranational" and regional organizations such as the European Coal and Steel Community and the Organization of African Unity will be studied. Also, other non-state agents in world politics like "multinational" corporations, "liberation-terrorist" groups and private organizations will be examined.

POL 345 United States Foreign Policy
3 credits

An analysis of the theoretic foundations of foreign policy, and the formulation of United States foreign policy, including the problems of decision-making; the roles of the President; the Congress, and the State Department are discussed. Major issues and problems of United States foreign policy in the contemporary world are also examined and analyzed.

POL 350 Public Administration: Management in the Public Service
3 credits

This course will survey the methods and practices for managing administrative agencies; techniques of leadership and coordination; the processes of personnel, budgeting, planning and administrative reorganization; problems of line and staff,

headquarters and field relations. An evaluation of channels for citizen participation such as decentralization and community control will be undertaken.

POL 354 Urban Policies and Problems
3 credits

This course consists of an intensive consideration of the formation and implementation of selected urban policies and programs. There is encouragement of field work on a specific topic. Among the areas that might be included are law enforcement, housing and urban renewal, welfare and poverty, transportation, community health and education; emphasis on the feasibility of current programs and discussion of the impact of proposed alternatives.

POL 402 Marx and the Marxists
3 credits

(Prerequisite: POL 302 or instructor's permission)

This course deals mainly with the intellectual development of Marx and Engels. Earlier philosophical and historical movements (political economy, Utopian socialism, German idealism, and working class movements) are given attention to place Marxism in historical perspective. Marx's and Engel's ideas on scientific socialism, historical materialism, class struggles, alienation, revolution, and classless society are analyzed through the reading of original works and commentaries. Particular attention is given to Marx's methodology in understanding capitalism and its usefulness in altering the world.

POL 403 Capitalism and Socialism
3 credits

(Prerequisite: POL 302 or 402 or instructor's permission)

This course analyzes the philosophical and material foundations of the various schools of capitalism and socialism. First, the rise of capitalism as an historical movement, the evolution of capitalism in theory and practice from free enterprise to the welfare state, the ideals of capitalism (equality, individualism, freedom, representative democracy), and the ideological potentials and limits of capitalism are analyzed in their historical and contemporary setting; second, the rise and evolution of socialist

schools—Marxism, democratic socialism, and anarchism. The nineteenth century origins of socialist theory are analyzed, but emphasis is given to twentieth century schools of socialist theory and practice—Marxism-Leninism, Trotskyism, Maoism, African socialism, anarcho-communism, women's liberation, and the new left.

POL 406 Jurisprudence: Law as a Social Institution 3 credits

The nature and social function of law; interrelated roles of judiciary and legislator; basic legal institutions of property, contract tort and crime; law and politics will be analyzed.

POL 440 Problems in International Relations 3 credits

This course will consist of discussion and analysis of selected international problems. Topics such as distribution of power, coalition patterns, ideology and conflict patterns, modern warfare and nuclear confrontation are examined; patterns of localized warfare in selected tension areas are also examined.

POL 441 International Law 3 credits

Study of international law via the case method to sharpen students reasoning abilities and their understanding of the power realities beneath international law.

POL 454 Problems in Municipal Administration 3 credits

(Prerequisite: POL 350, 354)

A first-hand exploration of the structure and operations of a municipality in Northern New Jersey will be pursued. Coordinated field work for the purpose of monitoring and describing the political patterns, administrative practices, intergovernmental relations, and operating programs that determine the quality of public services delivered.

POL 455 Internship (Public Administration) 3-15 credits

This course is designed primarily for students who are interested in practical aspects of Municipal Government and who may be considering Administrative-Level Careers in the Public Service. Students will

work from 8 - 40 hours a week under the guidance of experienced public officials. Field placements will be made to enable students to participate in management functions such as personnel, budgeting, planning or public service activities. Periodic conferences and a monthly seminar will serve to round out the program.

POL 480 Seminar in Political Science 3 credits

(Open only to Political Science juniors and seniors)

This course is a critical analysis of the literature in the field of political science. At least two seminars each semester are offered in areas of political theory, American politics, comparative politics, and/or international relations to give graduating seniors and juniors majoring in political science an opportunity to undertake original research and oral class presentation on selected topics and concepts. Topics vary according to instructors' and students' needs.

POL 490 Senior-Graduate Seminar in Political Theory 3 credits

The seminar will deal with the literature in political theory (theory, international relations, and comparative politics). The course may include topics such as American political theory, European political theory, Latin American political theory, Asian and African political ideas, and communism on an advanced level. The topics will vary according to student interests and faculty specialty.

POL 499 Independent Study 1-3 credits

As approved and to be arranged.

PSYCHOLOGY

PSY 110 General Psychology 3 credits

An intensive investigation of the chief facts, principles and problems of human behavior with special emphasis on current research and theory is undertaken. The biological foundations of behavior, sensory processes, learning perception, thinking, emotion, motivation, personality, and behavior pathology will be examined to establish the foundations for advanced study in psychology.

PSY 120 Psychology of Social Issues
3 credits

Basic concepts, theories and research findings from the field of psychology will be applied to an analysis of major social problems confronting American society.

PSY 130 Psychology in Business and Industry
3 credits

This course will cover the field of applications of psychology (experimental, social, clinical, and industrial) in the areas of marketing, business, and industry.

FOR EACH OF THE FOLLOWING COURSES, PSY 110 IS A PRE-REQUISITE.

PSY 202 Experimental Psychology I: Applied Statistics
4 credits

An introduction to contemporary statistical procedures and computational aids appropriate to researchers in the behavioral sciences is presented.

Emphasis will be placed on "generalized" factorial research design and data analysis procedures. Laboratory sessions will provide experience in the application of lecture material.

PSY 203 Experimental Psychology II: Laboratory
4 credits

(Prerequisite: PSY 202)

This course is a continuation of Experimental Psychology I and will acquaint students with the nature of scientific investigation with special emphasis upon the use of experimental techniques in the behavioral sciences. The student will be introduced to various methods for studying a wide range of human and animal subjects and for investigating a variety of special matter fields. The student will be required to participate in laboratory experiments and to design and carry-out an original research project. A variety of calculational approaches will be developed for several statistics.

PSY 210 Developmental Psychology
3 credits

This course studies the development of the individual through the life span. In particular, the major periods through early adulthood, their characteristics and

influences will be surveyed. Theory, such as represented by Erikson, Piaget and Sears, and practical application especially to education will be included.

PSY 230 History of Psychology
3 credits

Starting with Descartes, the foundations of modern experimental psychology will be traced through physiological and philosophical understanding of how the individual functions as a member of society and the various processes involved in group dynamics.

PSY 250 Psychology of Consciousness
3 credits

Consciousness is examined with respect to its different forms, the synthesis of these different streams of knowledge, as well as with respect to individual, unconnected states of awareness. The intellectual and intuitive modes will receive special attention. Concepts will be drawn from psychology, biology, anthropology, literature, religion, history and physics.

PSY 310 Orientation to Individual Testing
3 credits

This course will study the nature and functions of psychological testing, the interpretation of tests through scores and clinical and research hypotheses, various types of tests: intelligence, aptitude, personality, with particular emphasis on clinical interpretation.

PSY 312 Mental Hygiene
3 credits

A study of the problems of mental health in our country and in our schools: importance of mental health in developing wholesome personality; mental health hazards; the role of the family, community, and school in the development of personality patterns is the subject matter of this course.

PSY 319 Psychology of Early Adolescence
3 credits

The study of the maturational and learning factors responsible for personality development of the human organism during the years 10-15 is studied. Emphasis will be on the theoretical and applied research aspects of learning from the point of view of modified behaviorism and modern cognitive psychology.

PSY 320 Psychology of Adolescence 3 credits

This course consists of a consideration of the psychological effect of physical maturity and the interest and intellectual development of the adolescent. A study of the recreational activities, educational needs, and the social and emotional problems of the age group is undertaken.

PSY 322 Group Dynamics 3 credits

This course is a study of interpersonal behavior and group processes, emphasizing the laboratory approach and the technique of sensitivity-training. Classroom experiences constitute a significant part of the course content. The student learns about himself and others by direct participation, discussion, and evaluation within the student group.

PSY 323 Race and Social Class in Psychological Development 3 credits

(Prerequisite: PSY 210)

This course is a broad study of the effects of environment on human development, with special emphasis upon suggested influences associated with race and social class.

PSY 330 Psychology of Aging 3 credits

This course examines the psychology of aging including social, developmental, cognitive and biological perspectives. The area will also be explored as a current social issue with emphasis on mental health aspects.

PSY 350 Theories of Personality 3 credits

(Prerequisite: Junior or Senior Student)

This course will study various personality theories. Personality will be considered as an area of investigation rather than as an entity, real or hypothetical.

PSY 351 Abnormal Psychology 3 credits

A study of abnormal personality and behavior in terms of the adaptation of the individual to his social environment is undertaken. The course will include the dynamics of personality development and adjustment.

PSY 352 Psycholinguistics 3 credits

An academic study of the major theories of speech and language acquisition, combined with direct observation of such behavior as observed in 2-5 years olds. Approximately one half of the time in this course will be devoted to field study.

PSY 353 Physiological Psychology 3 credits

This course deals with the relationship between physical events taking place in the body and behavior. A proportion of the course focuses on the relationship between the brain and behavior, although the role of other organs is also included. Topics will include operation of individual nerve cells, interaction of groups of cells, and the sensory organs, and the effects of experience on the development of brain structures.

PSY 354 Psychology of Learning 3 credits

(Prerequisites: Junior or Senior status and PSY 203)

An examination of the research methods, empirical findings, and theoretical interpretation of conditioning and learning phenomena, including historical and current trends in research and theorizing in this area are undertaken.

PSY 360 Environmental Psychology 3 credits

The course will focus on man's psychological states and social behavior in relation to his physical environment, both natural and man-made. It will include spatial features of social interaction, the behavioral properties of places, and locational behavior of individuals and groups. Behavioral aspects of architectural design and urban planning will also be studied.

PSY 375 Human Information Processing 3 credits

(Prerequisite: PSY 203 recommended)

There will be a critical examination of man's information processing capabilities and limitations. Emphasis will be placed on the theoretical principles that underlie the attention, perception, and memory of events, as well as current research problems.

PSY 380 Field Methods in Psychology
3 credits

(Prerequisite: PSY 202)

The purpose of this course is to familiarize students with the various methods other than the laboratory experiment used in doing field research in psychology. A general overview of field surveys, field studies, and field experiments will be given. The problems of internal and external validity associated with each quasi-experimental design will be stressed.

PSY 410 Psychological Counseling
3 credits

(Prerequisite: PSY 351 or permission of instructor)

The course will emphasize the various characteristics defining the helping relationship as expressed in the counseling process, with adolescent and adult clients in secondary schools, college settings, and mental hygiene facilities.

PSY 415 Psychopharmacology **3 credits**

(Prerequisite: PSY 353)

The course will begin with the presentation of certain fundamental principles of pharmacology and of neurophysiology, and with an outline of relevant aspects of neuroanatomy and of the biochemistry of the brain. The course, then, focuses on four classes of drugs which affect brain function and behavior, beginning with anesthetics and barbiturates, and continuing with psychotherapeutic drugs, with hallucinogens, and with several drugs that affect learning and memory. Three levels of effect will be studied for each drug: the biochemical, the electro-physiological, and the psychological.

PSY 420 Perception **3 credits**

(Prerequisite: PSY 353)

The course will examine the processes by which organisms form concepts of the environment through the senses; including a study of the physical stimuli; the nature of the sensory organs and the neural networks; and the effects of learning upon perception in humans.

PSY 430 Social Psychology **3 credits**

A study of social behavior and influence

including interpersonal relationships and group processes.

PSY 440 Human Factors **3 credits**

(Recommended: PSY 420)

A study of man-machine systems and equipment design; based on knowledge of human performance capabilities. Considers operator training through simulation techniques, and methods of increasing safety through improved system design.

PSY 450 Cybernetic Psychology
3 credits

(Prerequisite: PSY 353, recommended; PSY 375)

The basic concepts of cybernetics, feedback, survival, regulation, information, amplification, etc. will be developed to show how general scientific models of the control of behavior in brains, man, society, and machines can be developed.

PSY 460 Comparative Psychology
3 credits

(Prerequisites: PSY 354 and either PSY 203 or 380)

This course introduces the student to the study of the behavior of organisms, including man, by means of the comparative method which 1) examines the diversity of behavior exhibited by life forms, 2) attempts to develop a general theory to account for many forms of behavior and their ingredients and 3) is addressed to furthering our understanding of the complex relationship between the disciplines of biology and psychology.

PSY 480 Seminar in Psychology
3 credits

(Prerequisites: PSY 203, 230 and Senior Status)

Topics vary each semester. There will be a consideration of a specialized topic, in-depth, from current research literature in psychology.

PSY 485 Research Techniques in Physiological Psychology
3 credits

(Prerequisites: PSY 203 and 353)

The course will introduce the student to the techniques employed in investigations in the area of physiological psychology. These procedures will include methods of preservation and histological preparations of nervous system tissue, implantation of electrodes for electrical brain stimulation and cannulas for chemical brain stimulation, lesioning techniques, electrical recording, human EEG recording, and biofeedback procedures for such physiological responses as brain wave, blood pressure, and heart rate conditioning.

PSY 499 Independent Study 1-3 credits

As approved and to be arranged.

Note: See also courses listed under BioPsychology.

PUBLIC SAFETY ADMINISTRATION

PUBS 160 Principles of Public Safety 3 credits

Philosophical and historical background of public safety agencies and processes; administration and technical problems, crime and the criminal as social and public safety problems.

PUBS 161 Public Safety Administration and Organization 3 credits

Introduction to the guidelines provided by organizational theory as they relate to public safety organizational structure. Discussion of public safety statistics, administrative problems, lines of responsibility, coordination among various branches, recruitment, career advancement, and the selection of public safety leadership.

PUBS 162 Contemporary Corrections 3 credits

This course examines the primary objectives and organizational structure of correction systems. A brief history, as well as an overview of the field of corrections as it relates to the reduction and control of crime is given. Current trends focusing on community responsibility are stressed. New community-based programs and facilities are examined.

PUBS 202 Management and Control of Public Safety Agencies 3 credits

Analysis of management, the policies and procedures of personnel effectiveness and their specific application to public safety, planning, program and performance budgeting, records management, data processing, communications, leadership, decision-making and operations research.

PUBS 203 Community Relations 3 credits

Public safety functions as a critically sensitive area of public service. Examined are the attitudes and actions of public safety personnel and the public which contribute to positive and negative relationships between the two; public apathy and law enforcement: changing nature of social controls; cases and situations in public safety-community relations. Ways to stimulate meaningful human relationships and a sense of dialogue are explored. The class setting serves as a laboratory in which a sense of community among students is fostered.

PUBS 206 Concepts and Principles of the Substantive Criminal Law 3 credits

Historical development, philosophy of law and constitutional provisions; definition, classification of crimes, and their application to the system of administration of justice; legal research, study of case law, methodology, and concepts of law as a social force.

PUBS 207 Contemporary Problems in the Administration of Justice 3 credits

A study of the role and responsibilities of the seven segments within the Administration of Justice System: Law Enforcement, Judiciary, Corrections, Probation, Parole, Prosecution, and Defense. A past, present, and future exposure to each sub-system procedure from initial entry to final disposition, and the relationship each segment maintains with its sub-system members.

PUBS 301 Supervision in Public Safety 3 credits

The course will consider the supervisory

problems within public safety organizations and the attainment of effective performance through the skillful blend of sound principles of human relations and supervisory techniques. Such topics as leadership, motivation, discipline, instructional training and other devices in achieving departmental aims and objectives will be included in the course.

PUBS 302 Introduction to Criminology 3 credits

Study in this course includes the nature, variation, and causes of crime and delinquency. Modern methods in the treatment of criminals as well as preventive and correctional programs are examined. Probation and parole problems are examined. The criminal courts are considered. A survey of theories of crime and penology is made. In general, problems inherent in the components of the criminal justice system are also explored.

PUBS 303 Public Safety and Juvenile Delinquency 3 credits

By examining the most current literature in the field, insight is gained into the nature, variation and causes of juvenile delinquency. The course is also concerned with new directions in the juvenile justice system (including an evolving juvenile court and juvenile code). Attention is given to research describing and evaluating juvenile correctional institutions as well as to diversionary programs that pose both an alternative and a critique of juvenile institutions. The need for community-based delinquency programs aimed at primary prevention is underscored.

PUBS 304 Patrol Operations 3 credits

Patrol as the basic function of public safety operations. Purpose, methods, types, and means of public safety patrol. Analysis of tangibles and intangibles of patrol operation. Existing practices in various public safety departments of the United States, Europe and the United Kingdom are compared and evaluated critically.

PUBS 306 White Collar Crimes 3 credits

(Prerequisite: PUBS 206)

Acquaints law enforcement operatives and

those persons having an interest in the field of law enforcement with methods utilized by attorneys in so far as the handling of white-collar and business criminal cases are concerned. The course will deal with both tactical and substantive problems and will examine all phases of white-collar crime.

PUBS 307 Forensics 3 credits

An introduction to the problems and techniques of forensic science. Emphasis on the nature, value and assistance of various forensic science tools available to the police officer, detective, or identification personnel. Practical case illustrations from various agencies in New Jersey will be used.

PUBS 308 Procedural Criminal Law 3 credits

(Prerequisite: PUBS 206 or PUBS 210 or permission of instructor)

The development of the procedural machinery in enforcing the substantive law; definitions of the various procedural concepts such as arrest, statute of limitations, bail, preliminary hearings, Grand Jury, etc. The application of the various concepts to present substantive laws in various jurisdictions. The impact of the Supreme Court on the procedural law in various jurisdictions. Importance of legal research in both the area of statutory and substantive law.

PUBS 309 Social Problems in Criminal Justice 3 credits

A systematic, in-depth study of social problems as they relate to the criminal justice system. Research and theory in each area. Application of theory and practice to everyday experience of in-service personnel.

PUBS 310 Comparative Criminal Justice Systems 3 credits

A comparative analysis of criminal justice systems in the United States and selected foreign countries. Emphasis on the administrative and organizational aspects, functions and processes at work in selected foreign criminal justice systems. The relationships of the police to the government and the people they serve will also be analyzed.

PUBS 320 Fire Protective Systems
3 credits

This course will be used to give a short history of automatic sprinkler systems from their inception in 1723 to the present. Building and feeding of a wet pipe system; the time that goes into them. Properties (chemical) of water, water as an extinguishing agent, water supplies, special occupancy hazards, types of systems, wet-dry deluge, preaction dry pipe-preaction systems, and stored or limited water supply system.

PUBS 401 Law of Evidence 3 credits

(Prerequisite: PUBS 206 and PUBS 308 or permission of instructor)

A comprehensive analysis of the rules of evidence. The course will give particular emphasis to evidence in criminal cases, presumptions of the penal law, the status of illegally obtained evidence, proof of other crimes, admission of memorandum book entries, dying declarations and involuntary confessions.

PUBS 402 Investigation Techniques
3 credits

Introduction to investigation procedures, including theory of an investigation, conduct at crime scenes, collection and preservation of physical evidence, methods used in public safety science laboratory, fingerprints, ballistics, documents, serology, photography, weapons, related forensic sciences, and elements that constitute crime.

PUBS 403 Community Supervision and Treatment of the Offender
3 credits

This course focuses on an analysis of theories and practices of parole and probation. It is also concerned with the current trend toward diversion of offenders from the criminal justice system and special community programs.

PUBS 404 Highway Traffic Administration 3 credits

Organization of public safety activities. Administrator standards. Parking control. Directing traffic movement. Accident reporting and investigations. Traffic records. Accident data analysis and

planning. Traffic court procedures violations, bureau operations, 3 E's—Engineering, Education, Enforcement.

PUBS 405 Arson Investigation 3 credits

A comprehensive analysis of the problems, techniques, and procedures of arson investigation. Emphasis will be placed upon the nature of fire, accelerants used by arsonists, and in determination of suspicious fires and occurrences. Court room procedures by fire and police officers involved in investigation or arson. Practical case illustrations will be used.

PUBS 420 Modern Fire Suppression
3 credits

The course will give particular emphasis on the modern strategy and tactics used to suppress and control fire. Basic strategy used in fire fighting is: (1) Locate the fire, (2) Confine the fire, (3) Extinguish the fire. All other actions are tactics stemming from the basic strategy, bringing into play the whole spectrum of men, apparatus, equipment, water and hose. Tactics in addition to the basic ones listed above include rescue, if necessary, protection from exposure, overhaul, ventilation and salvage.

PUBS 480 Seminar in Public Safety Problems 3 credits

(Public Safety Seniors Only)

An analysis of the major problems in public safety and the relation of the public safety department to other law enforcement and civic agencies.

PUBS 499 Independent Study 1-3 credits

As approved and to be arranged.

READING AND LANGUAGE ARTS

RLA 320 Teaching Language Arts in the Elementary School 3 credits

This course is designed to acquaint students of elementary education with the role of language and its development in the life of a child. Methods, techniques, and materials used to develop the listening, speaking, writing, and reading skills of children will be critically examined. Attention will be given to the effective uses of literature, to procedures for stimulating

creative expression and growth in sensory skills, and to current practices in teaching the tool skills such as handwriting, spelling, and grammar. The preparation of lesson plans, program organization, and procedures for reporting progress in the language arts will also be included.

RLA 323 Teaching Reading 3 credits

A basic course in the principles, methods, and materials for teaching developmental reading in the elementary school. Aspects of readiness, word identification, comprehension, study skills, and rate will be included. Attention will also be given to various organizational plans for elementary reading programs and to informal and formal testing procedures.

RLA 324 Reading Practicum 1 credit

(Taken in conjunction with RLA 323)

Students are assigned to selected elementary and secondary schools to tutor children with reading problems. Tutors are supervised by college staff and school personnel.

RLA 325 Children's Literature 3 credits

A course designed to survey the field of children's literature, past and present. Students will have the opportunity to share and analyze many types of books. Techniques for evaluating and telling stories, preparing study guides, using book selection aids, and creating interest in literature will be considered. Strategies for bringing children and books together will be emphasized.

RLA 329 Foundations of Reading 3 credits

This course deals with the psychological and linguistic foundations of the reading process. Emphasis will be placed on how children develop the ability to read and understand increasingly difficult and diverse materials through their school years. Classroom techniques for aiding this development will be stressed.

This is the first part of the six-point reading sequence required for New Jersey certification.

RLA 330 Reading Strategies for the Content Areas 3 credits

(Prerequisite: RLA 329)

Skills and knowledge needed in reading by the content area teacher will be examined. The subject area materials, different modes of learning, causes of reading difficulties and methods of preparing materials and students for improved reading performance will be stressed. Each student will develop a case study of a reader as he interacts with appropriate content area materials.

This is the second part of the reading sequence for non-elementary education majors who are seeking certification K-12 in a specific content area.

RLA 331 Reading Practicum 1 credit

(For non-elementary Education Majors)

(Prerequisites: RLA 329, 330)

An elective for non-elementary education majors who wish to extend their proficiency in teaching reading. This will involve field experience in a reading center under staff supervision.

RLA 423 Advanced Reading Techniques 3 credits

(Prerequisites: RLA 323 or 329)

The student assesses the reading strengths and weaknesses of a child through the use of selected formal and informal testing procedures. He then develops an individualized reading program based on the specific needs of his subject.

The course is designed to help prospective teachers understand the elements of accountability involved in the teaching of reading through actual involvement in a developed case study.

RLA 427 Special Reading Field Services 1 credit

(Prerequisites: RLA 323, 324)

Junior or senior students desiring to apply their knowledge of techniques of teaching reading in approved area schools may be assigned to tutor children with reading problems for a minimum of one hour per week. Students will be supervised by college staff.

RLA 495 Reading Improvement and Practicum 6 credits

(Prerequisites: RLA 323 or 329 or equivalent)

The study of testing techniques, teaching materials, and instructional practices designed to help elementary and secondary school children who are not reading up to their potential. Through the case study approach, the student will have the opportunity to study, synthesize, and assess diagnostic and corrective materials. The first part of the class period deals with theoretical approaches and the second part involves the student in a teaching practicum in the college reading center.

RLA 499 Independent Study 1-3 credits

As approved and to be arranged.

SCHOOL PERSONNEL SERVICES

SPS 410 Educational Testing and Evaluation 3 credits

(Prerequisites: PSY 110 and either PSY 210 or SED 310)

The principles and procedures used to evaluate pupil growth in skills, attitudes, and understandings. The construction and use of teacher-made tests, the selection and interpretation of standardized educational tests, performance tests and other methods of evaluation will be emphasized. The necessary statistical concepts are included in this course.

SECONDARY EDUCATION

SED 301 Curriculum and Its Implementation 3 credits

A study of the major goals and standards of the various curricula used by the regular schools and the alternative schools. Emphasis is placed on recent developments in the various subject fields, and the teacher's role in the process of curriculum change. This course includes a senior practicum and is taken concurrently with the methods course in the fields of English, social studies, mathematics, science, foreign language, communication.

SED 302 Discovering Your Teaching Self (K-12) 3 credits

(A Pre-Student Teaching Requirement of the Junior Year)

This course is used in conjunction with SED 340, Exploring the Teaching Field and is a pre-student teaching requirement. It is designed for self discovery of the subject matter specialist's potential as a teacher, beginning at the elementary school level. The student becomes familiar with 1) aspects of rules, regulations, structure and organizational patterns operating in the schools, 2) the role of the subject matter specialist in the elementary school and the development of an instructional program in a given discipline, 3) the importance of students' needs and interest in preparing educational programs, and 4) aspects of teaching as a career option.

(These two courses, SED 340 and HSA 301, constitute what is known as the Junior Year Field Model.)

SED 324 Music Education in the Secondary School 3 credits

(Prerequisite: Admission to the Instrumental or Vocal Music Major)

An overview of the music program in the junior and senior high school. Consideration of methods, techniques, media, materials and research in teaching music at the secondary school level. Emphasis on the general music class, the organization and development of vocal and instrumental groups, high school music appreciation and theory, and related arts programs.

SED 326 Art, Children and Learning Vitality 3 credits

(Prerequisite: Admission to the art major)

Plan, develop, conduct, evaluate, and share art activities, happenings, and learning experiences with interested youngsters in a program that develops in the college student an understanding of the function of art in the life of the child. The actual orientation of this course will provide insights into the background, development, directions and thrusts of art education for the 1980's.

SED 327 Art Education in the Secondary School 3 credits

(Prerequisite: Admission to the art major)

The art curriculum in the secondary school. Analysis of techniques, methods, media, and materials required. Attention will be given to the creative and expressive needs of the adolescent; the problem of equipment and supplies including sources, storage and distribution; and the development of a personal philosophy for the teaching of art. This course is taken concurrently with Art Education in the Elementary School, and a practicum is included.

SED 329 The Competencies of Open Education 3 credits

This course explores the characteristics of open education that encourage creativity, develops appreciation and nurtures sensitivity. The insights and understandings of the concepts of such programs will be developed through directed experiences. Sequences that range from concrete to complex and involve self-selection of activities within the framework of individualization will be developed.

SED 330 Implementing Your Teaching Major (K-12) 3 credits

Forms and procedures for instructional planning (including media and materials) are defined, designed, implemented and evaluated to develop the student teacher's classroom competencies. In order to obtain specific teaching techniques appropriate to the discipline or subject major, the following modules are provided:

MODULE A — English

(Prerequisite: Admission to the English major)

Emphasis is placed on the objectives of English education, the individualization of instruction, pupil evaluation, and trends in English curriculum development. The teaching of reading in secondary schools is given attention. The course is taken concurrently with the secondary school curriculum course so that methodology may be related to the practicum.

MODULE B — Foreign Language

(Prerequisite: Admission to the foreign language major)

Emphasis is placed on the objectives of modern foreign language education, the individualization of instruction, teaching the spoken language, and pupil evaluation. The course is taken concurrently with the secondary school curriculum course so that methodology may be related to the practicum.

MODULE C — COMMUNICATION (Speech Arts)

(Prerequisite: Admission to the communication major)

Emphasis is placed on speaking and listening skills. Classroom activities in speech and dramatics; studies in mass media; methods and materials for teaching and evaluating. This course includes speech, television and radio, oral reading, dramatics, choral speaking, debate and assembly programs.

SED 331 Implementing Your Teaching Major (K-12) 3 credits

Forms and procedures for instructional planning (including media and materials) are defined, designed, implemented and evaluated to develop the student teacher's classroom competencies. In order to obtain specific teaching techniques appropriate to the discipline or subject major, the following modules are provided:

MODULE E — Mathematics

(Prerequisite: Satisfactory standing in the mathematics major program)

Emphasis is placed on the objectives of mathematics education, the individualization of instruction, pupil evaluation, and trends in mathematics curriculum development. The course is taken concurrently with the secondary school curriculum course, so that methodology may be related to the practicum.

MODULE F — Science

(Prerequisite: Admission to the biology or chemistry major)

Emphasis is placed on the objectives of

science education, the individualization of instruction, pupil evaluation and trends in science curriculum development. The course is taken concurrently with the secondary school curriculum course so that methodology may be related to the practicum.

MODULE G — Social Studies

(Prerequisite: Admission to the geography, history, political science, sociology, black studies or urban education majors.)

Emphasis is placed on the objectives of social studies education, the individualization of instruction, pupil evaluation, and trends in social studies curriculum development. The course is taken concurrently with the secondary school curriculum course so that methodology may be related to the practicum.

SED 340 Exploring the Teaching Field **1 credit**

(Prerequisite: A Pre-student Teaching Requirement of the Junior Year)

Exploring the Teaching Field provides that bridge between theory and practice where there is opportunity to observe employability skills such as responsibility and cooperation, taking instruction, being on time, and remaining on the job. At the elementary school level, this experience permits the college student to observe and aid the classroom teacher in a variety of activities excluding the actual teaching of the class. (This above course is used in conjunction with the course, HSA 301, Discovering Your Teaching Self, (K-12)-3 credits. Both courses, together, will provide 4 credits of work in the area of elementary education.)

SED 342 Ecology for Educators **3 credits**

This course is multidisciplinary, using materials from many science disciplines. It is designed to develop adequate teacher background with multiple teaching strategies for the energy and conservation topics taught in grades 1-12. The course will include field trips to energy producing and energy research stations. Students will learn to use a variety of audio-visual aids, some self-prepared, to construct

resource units and units of study in these areas for specific grade levels.

SED 350 Teaching the Intermediate Years **3 credits**

(Prerequisite: Admission to the Middle and Junior High School major)

This course, designed for those intending to teach the late pre-adolescent or early adolescent, gives special attention to the objectives, concepts, methods and materials that are significant in an instructional program for the intermediate years. Emphasis is given to developing competencies in guidance, in working as part of a teaching team, in using the problem-solving approach, in integrating a variety of content and in developing techniques for successful teaching in blocktime situations. Consideration is given to the development of skills in evaluating, testing and reporting learning.

SED 351 Field Experience and Seminar: Stratum I (Middle and Junior High Program) **3 credits**

(Prerequisite: SED 350)

A series of professional laboratory experiences designed to provide students with regular opportunities for observation in intermediate and junior high schools and for extended participation as teacher aides and para-professionals in the school. Students meet as a seminar to share their observations, analyze their problems and further develop their skills and resources.

SED 352 Curriculum of the Intermediate and Junior High School **3 credits**

(Prerequisite: SED 350)

The development, organizational structure, and program of various types of intermediate and junior high schools are examined. Attention is given to recent developments in the various subject fields and the teacher's role in the process of curriculum change. New types of school organization and scheduling are explored.

SED 360 New Perspectives in English **3 credits**

Contemporary thinking and innovations in the teaching of English in the intermediate

and junior high school grades. Methods, techniques, media, materials and research are explored. Content appropriate to these grade levels is reviewed. Special consideration is given to new approaches to the teaching of oral English, literature, composition and language structure, and to the recommendations of professional and learned societies.

SED 361 New Perspectives in Social Studies 3 credits

Contemporary thinking and innovations in the teaching of social studies in the intermediate and junior high school grades. Methods, techniques, media, materials and research are explored. Content appropriate to these grade levels is reviewed. Special consideration is given to the inter-relation of history and the social sciences, and to the recommendations of professional and learned societies.

SED 362 New Perspectives in Science 3 credits

Contemporary thinking and innovations in the teaching of science in the intermediate and junior high school grades. Methods, techniques, media, materials and research are explored. Content appropriate to these grade levels is reviewed. Special consideration is given to rapid changes occurring in science, and to the recommendations of professional and learned societies.

SED 363 New Perspectives in Mathematics 3 credits

Contemporary thinking and innovations in the teaching of mathematics in the intermediate and junior high school grades. Methods, techniques, media, materials and research are explored. Content appropriate to these grade levels is reviewed. Special consideration is given to modern arithmetic and algebra, informal geometry and statistics, and to the recommendations of professional and learned societies.

SED 380 Insights and Outlooks in Education 3 credits

This course concerns itself with concepts and theories from historical, philosophical, and sociological sources. Outlooks for emerging and developing educational

thought are examined through instructional practices that are currently observable in institutions of learning.

SED 381 Educational Sociology 3 credits

Acquaints the student with basic concepts of human relationships, analyzes selected problems of the contemporary social order and provides opportunity for individual research in the area of students' special needs and interests. Consideration is given to such topics as the following and their relationship to public education: housing, race, crime and delinquency, teacher-community relationships, community action, and cultural relations.

SED 383 Teaching Reading in Grades 5-12 3 credits

A survey of the developmental, work-study, and recreational reading of intermediate, junior high and senior high school students. Methods of improving reading and study skills in subject matter areas will be emphasized. (Secondary education students only.)

SED 391 Challenge, Change, and Commitment in Education 3 credits

This course presents the challenge and change related to the functions and role of education in an increasingly complex and technological society. Special emphasis is on inter-cultural relations and problems in the American public school. The school, as an institution, is examined in relation to other educative agencies in the local, state, national, and world communities. Commitment to the teaching profession is viewed as important in the study of the status and role of education in the American culture.

SED 392 Education in a Time of Crisis 3 credits

An exploration of some specific aspects of the global crisis and its impact on culture with an operational focus on education. There will be a search among the traditional approaches to dealing with problems, but the fulcrum for initiating new solutions will be individual student examination of immediate cultural binds in that a student's own experience and a

sharing of these through confrontation, interaction and dialogue.

SED 393 Adventures in Affective Education 3 credits

A course designed to enhance and develop the students' intuitive, creative, imaginative senses and to discover techniques and skills for fostering this kind of growth in their own students. The major focus in the course will be on the newer techniques and strategies used in teaching and learning both in traditional and non-traditional schools and settings. Growth in affectional and intellectual capacities will emerge from these developmental experiences in the class.

SED 404 Instructional Seminar for Student Teaching 1 credit

(Prerequisite: See, College of Human Services, General Information, page 76)

Current trends and developments in public education are explored. Particular attention is given to classroom management and other problems which confront student teachers. The course will be conducted during the semester of the student teaching experience.

SED 428 Simulated Laboratory Experiences in Secondary Schools 3 credits

This course is intended to provide an overview of the changing high school including emphasis on the solving of multi-ethnic problems. Simulation, games, and other media recreate human relation conflict situations and provide students with direct experiences in confronting school problems. Each student will have an opportunity to approach, assess and solve these problems without experiencing the real life consequences of his mistakes. Students will learn to handle potentially difficult situations.

SED 430 Teaching Literature to Young Adults: Grades 5-12 3 credits

A study of the books actually read by the modern adolescent in grades 5-12. This includes an analysis of subliterate, the adolescent novel, the popular adult book, relevant poetry, nonfiction, and the ethnic experience in literature. Effective ways of teaching literature for the adolescent are stressed.

SED 432 Human Adaptations and Alternatives in the School 3 credits

This pre-service course for teachers is designed to provide for the study of the human relations aspect of social interaction and cultural changes that engage the schools today. Special attention will be given to developing competencies in the behavior patterns of students who become teachers. This course is an effort to educate for positive democratic human and intercultural relations in school.

SED 435 Alternative Forms of Education 3 credits

(Elective for Teacher Education Majors. Students in other programs are permitted with the permission of the instructor.)

This course deals with the alternative school movement, including educational options provided both inside and outside the framework of public schools. Pioneer programs, alternative learning experiences, and innovative educational approaches are considered.

SED 436 Creativity and Display in Instruction 3 credits

An understanding of the creative process and its practical application in the classroom can aid in the student's effective learning. The teacher should master display techniques and multimedia devices as a form of communication, motivation, and growth. A display in itself could promote creativity and allow for individual and growth expressiveness and provide the continual opportunity to modify the classroom environment.

SED 437 Adult and Continuing Education 3 credits

Every town offers some form of adult and continuing education to its citizens. While the offerings appear to be unique from community to community, the student will come to recognize certain patterns and modes of operation. A study will be accomplished which includes various program sponsoring agencies as well as the participants they reach. The student will observe how instructional devices and individualized techniques are utilized in a

broad consideration in teaching adults. Some class meetings will be conducted in the field.

SED 438 Field Trips and Experiential Learning 3 credits

First-hand learning opportunities provide the student of any age with relevant learning experiences. The effectiveness of the experience is related to the choice, planning, and organization of the educational happenings. Participants in this class will be involved in establishing a series of first hand learning situations to experience for themselves.

SED 451 Education Laboratory: Crafts and Strategies in Earth Science 4 credits

Students will study the techniques of conducting a laboratory oriented school earth science program. The interdisciplinary principles involved will be presented and analyzed in terms of experiential strategies. Emphasized will be those processes and skills needed by prospective teachers for the effective exposition of the crafts of geoscience. Field experience for the application of concepts and skills will be an integral part of the course.

SED 480 Field Research Studies in Teacher Education 3 credits

(Prerequisite: Admission to a teacher education major or certification sequence. Open to students with a 2.75 GPA or permission of the instructor.)

A study of problems and trends in the preparation of teachers. Emphasis on defining the role of the teacher and evaluating varied educational approaches and innovations. Each student will pursue an individualized project based on research in the field of education and on practical experience, which may include surveys, school visitation, participation in teaching or committee service of an educational nature.

SED 499 Independent Study 1-3 credits

As approved and to be arranged.

SOCIOLOGY

SOC 110 Principles of Sociology 3 credits

The course is an introduction to the scientific structure of social life. In order to study how human groups are formed and how they function, the student will be presented with basic concepts in the field.

SOC 115 A Way to College Survival 1 credit

This course disseminates institutional information, services, policies, etc. to the student population. The course involves analyses and discussions of the changing personal roles and values of college students. As a perspective of higher education's influence upon maturation, this course will touch on relevant social issues and the collegiate climate at William Paterson College. The course is designed to promote the growth of students as individuals and as participants in society.

SOC 120 Marriage and the Family 3 credits

The course is a sociological approach to the study of marriage and family living and, therefore, covers a wide range of topics such as family forms and functions, sex roles, changing sexual standards, and the future of the American family system. The student is required to develop a critical evaluation of the studies and research of the field.

SOC 130 Social Anthropology 3 credits

The course is designed to give students a better understanding of the basis and nature of human culture and social organization through the reading and discussion of anthropological studies of various cultures.

SOC 200 Races of Man 3 credits
(Prerequisite: SOC 130)

The course "Races of Man" will describe races of man in the world at large. It will also deal with the polytypic form of man; that is, the physical differences found in human species. These differences are related to some extent to the physiological demands of various climates.

SOC 205 Crime and Custom in Tribal Society 3 credits

This course is designed to enlighten students with the tradition, custom, and jurisprudence in primitive society which brings about social cohesion and order.

SOC 210 Archaeology 3 credits

(Prerequisite: SOC 130 or permission of instructor)

This course studies man's past, based on archaeological findings. It examines evidence of how man lived in prehistoric times and follows the development of culture from the first fossil evidences through the various stages of his development, thus revealing the continuity of human history from the origins of man to modern time.

SOC 250 Urban Sociology 3 credits

(Prerequisite: SOC 110)

The study of the history through history with a focus on the modern American metropolis: ecological patterns, urban institutions, with a particular emphasis on the problems of the inner city, the rise of suburbia, and future prospects is analyzed.

SOC 251 Minority Groups I 3 credits

This course deals mainly with black minority groups in this country and abroad. The role of the black man will be analyzed via white-dominated institutions of slavery, "separate but equal," integration and black capitalism. The Black response to a white-interpreted role will be examined in the light of the Black's evolving behavior via "Uncle Tomism," Civil Rights, Black Power, and Third World.

SOC 252 Minority Groups II 3 credits

This course will deal with the minority groups in America other than Black minority. The focus will be on the particular characteristics and problems of each group. Among specific minority groups studied will be the Irish, Italians, Jewish people, Puerto Ricans, Mexicans, American Indians, and the people of Appalachia.

SOC 253 Elementary Sociological Statistics 3 credits

A basic course introducing the use of

quantitative methods to describe social life will be presented. No special mathematics background or aptitude is required. Emphasis will be placed on learning to measure and make decisions about problems that sociologists currently face in government, business, evaluative and theoretical research.

SOC 254 Sociological Research Methods 3 credits

Students will learn to evaluate research reports so that their future decisions and work will be based on social facts. Class discussions will explore reasons why valid research is the basis of effective social action. Students will also gain practice in basic data gathering techniques such as observation, interviewing and questionnaire construction. There are no statistics or mathematics prerequisites for Sociological Research Methods.

SOC 255 Qualitative Sociological Methods 3 credits

The course will provide understanding and practice in gaining and analyzing useful information in social settings by using methods such as: typologies, content analysis, participant observation and interviewing.

SOC 256 Political Sociology 3 credits

The course will examine the major works of political sociology with special emphasis on the conflicting concepts between the "liberal" ideas of such writers as Bell, Parsons, and Dahl and the "new left" approach of Goodman, Mills, and Marcuse. The course will be divided into three parts: the nature and extent of political power, the meaning, form and cause of social movements, and the methods of social-political change.

SOC 257 Sex and Taboo in Primitive Societies 3 credits

This course studies the sexual impulse and its possible manifestations in the myths and customs of savages. It also sets forth views on the origins and force of culture. More specifically, it shows that repression of sexual instinct among primitive people must have arisen as a creation of culture.

SOC 300 Social Welfare Policy 3 credits

This course is an introduction to the issues and knowledge upon which social welfare and social work curricula are built. It illuminates the scope of social welfare as a concept, the structures which have grown out of the concept, and the theory and practice techniques enabling the structure to function. A theoretical focus is maintained in the analysis of historical background, values, structure, concept, methods and contexts. The emphasis is more on helping the student to understand the present social welfare structure and societal needs, the values forming the core of our social welfare system, traditional practice techniques, relevant social science concepts from which techniques have come.

SOC 302 Physical Anthropology 3 credits

(Prerequisite: SOC 130)

Physical anthropology studies man as a biological being. It analyzes the relations between the human species and other primates, such as apes and monkeys, the origin and evolution of man and human races, and the relationship between man's biological constitution and his culture. Finally, it traces the evolution of man from the earliest fossil finds to the present day.

SOC 310 Sociology of War 3 credits

(Prerequisite: SOC 110)

This course examines the theories surrounding the causes, nature and effects of modern warfare and its influence on shaping social structure and personality.

SOC 320 Sociology of Labor 3 credits

The course will deal with three levels of labor; activity, working class roles, labor disputes and collective action. The study of national labor movements focusing in upon the founding of the IWW to the present rank and file movements of today.

SOC 322 Bureaucratic Organization 3 credits

(Prerequisite: SOC 110)

This course will be both theoretical, in tracing the development of organizational theory to the present; and practical, in

considering the increasing impact of bureaucratic organizations on our lives. Specific organizations such as factories, offices, unions, universities, hospitals, prisons, churches and voluntary associations will be discussed.

SOC 324 Sociology of Religion 3 credits

This course will examine the social dimensions of religion and the relationship between religion and society. Sociological theories of religion, religious organization and behavior, religion and social change, and the processes of institutionalization and secularization are discussed. Students will study the ways in which religion influences society, culture, and personality, and how they affect religion. The role of religion is reviewed in different social and cultural contexts. In addition, the relationship between religious change and social change is studied.

SOC 325 The Sociology of Social Movements 3 credits

(Prerequisite: SOC 110)

This course will be divided into two parts: the first deals with social movements emerging from class conflicts (unions, unemployment unions, etc.); the second deals with cultural, national conflicts (Black struggles, Women's Liberation, the youth movement, etc.).

SOC 326 American Religion 3 credits

This course analyzes the social meanings of religion in America, with particular reference to the liberal and conservative viewpoints. It also explores the social significance of contemporary religious developments and movements such as the Jesus Movement, cultism, and Reverend Ike's Blessing Plan. Other areas to be covered include: the Black Church and the intrusion of Eastern mysticism upon American religions.

SOC 327 Collective Behavior 3 credits

(Prerequisite: SOC 110)

The purpose of this course is to introduce students to the area of sociology designated "Collective Behavior." Various types of collective behavior will be discussed, with a comparison of theoretical approaches to each type.

In contrast with the study of the face-to-face small group, groups of large size, with or without face-to-face interaction, will be focus of the course. At times, political expressions in Collective Behavior will be discussed, but the course orientation will be theoretical and empirical rather than ideological.

SOC 328 Sociology of Arts 3 credits

This course is designed to show the reciprocal relationship between the arts and society. The course will examine how various attitudes, values, and norms in culture are revealed in the arts. The purpose is to help the student understand the vital place of the arts in society, as well as the impact of the culture on the arts. In addition, since society is composed of a variety of subcultural groups. A cross cultural perspective will also be presented to the student.

SOC 330 Sociology of Death and Grief 3 credits

Death as an institution will be studied by focusing on death and social values, cultural components of grief, and social functions of bereavement. Particular attention will be paid to the social organization of death and dying in bureaucratic settings, e.g., the hospital and total institutions such as the prison, the mental hospital, and the old age home. Dying will be studied as a social process using a career model.

SOC 331 Evaluation of Social Action 3 credits

The principles, techniques and applications of evaluation research will be learned through the utilization of research methodology and statistics. Students will develop fieldwork projects for analysis in the areas of administrative studies, education, public safety, law, health, nursing, social and behavioral sciences. Students will gain an understanding of the social environment for conducting and implementing research.

SOC 353 Human Types — A Comparative Study of Cultures 3 credits

(Prerequisite: SOC 130)

This course is designed to study man as a biological as well as a social animal. It also

presents physical characteristics of races, and the culture and the development of the primitive and modern man. Many examples from field work will be cited to throw light on the cultural complex.

SOC 354 Social Stratification 3 credits

(Prerequisite: SOC 110)

With an emphasis on American society, this course treats both the theory and realities of social class. Among the topics discussed are inequality of income, social mobility, class correlates and life styles. This course will end with an examination of power in the U.S.

SOC 357 Customs and Conflict in African Societies 3 credits

(Prerequisite: SOC 130)

This course is designed to investigate the customs, conflicts, and the resulting problems in african societies. Detailed descriptions of particular tribes will be presented to help the students understand these cultures and the problems that the societies are attempting to solve.

SOC 359 Cultural Change in Latin America 3 credits

This course discusses the origin and development of processes of culture change in latin America. It gives the student an opportunity to learn about the cultural institutions of highly developed indigenous cuptures anf their influences upon present-day Latin American Cultures. It makes available to the student current writings on Latin America which deal with social change, and helps the student develop scisntific objectivity (an anthropological prerequisite) in his analysis of the social problems resulting from change.

SOC 360 Self and Society 3 credits

The impact of society on the formation of each individual's personality will be studied through analysis of the language, definitions, and values of each social group that is important in shaping how we see and evaluate life and ourselves.

SOC 361 Psychological Anthropology 3 credits

The course will study the interaction of

culture and personality in various parts of the world, and will explore specific topics which have cultural impact on the development of personality. The course will also introduce the student to various techniques which have been, and are being, utilized in the field in the study of culture-personality interaction, and will develop guidelines for an understanding of the development of personality in modern culture. It will trace the history of this field (psychological anthropology) from its beginnings to its current status as a field of anthropological inquiry.

SOC 362 Family in Socialist Societies 3 credits

As these two socialist societies, Russia and China, have patterned their family system on the Marxist theory, they provide an excellent laboratory for our investigation on the resemblances and differences of both Western and Socialist societies.

SOC 365 Social Deviance 3 credits

Sociological concepts and theories applicable to the entire range of deviant behavior will be studied. In addition, a social-psychological orientation will be introduced where relevant.

SOC 370 Population and Society 3 credits

Four problems will be addressed:

1) dangers of world population growth for individual's survival; 2) the interaction between change, social structure and population; 3) social-psychological attitudes in fertility decisions; 4) the uses of the census to describe social problems.

SOC 390 Medical Sociology 3 credits

Analyzing social factors in relation to health, consideration will be given to definitions of health, illness behavior, the formal and informal organization of health professions and institutions, and the expanding role of government in the health field. Use will be made of both theory and current research.

SOC 400 Sociology of Knowledge 3 credits

(Prerequisite: SOC 110)

The course is designed to analyze the

relationship between knowledge and society by focusing on the advantages and disadvantages of the classic formulations of sociology and the sharp distinction between the two concepts. It also helps the student to become aware of alternative sociological approaches to problems of knowledge.

SOC 402 Modern Sociological Theory 3 credits

(Prerequisite: SOC 110)

After providing a background regarding the emergence of sociology, this course will involve an analysis of contemporary social thinkers. The students will become involved with the ideas of such men as Robert H. Merton, Talcott Parsons, Theodore Newcombe, David Riesman, Seymour Lipset, Daniel Moynihan, and Nathan Glazer. The course will also analyze the movement from attempts at grand theories of society to specialized theories dealing with specific variables and institutions.

SOC 406 Social and Environmental Change 3 credits

(Prerequisite: Principles of Sociology or permission of instructor)

Problems of environmental social change are critically examined and evaluated. Emphasis is upon exploring small and large scale modes of change.

The student will develop skills in analysis of social change, learn to design micro changes on the institution level and what connections do and do not exist between micro and macro level changes.

SOC 407 Theories of Race and Ethnic Relations 3 credits

This course will focus on race and ethnic relations conceived as a theoretical problem in sociology. Included will be analysis of the theories underlying race and ethnicity in modern industrial societies and specifically the United States, the evolutionist and functionalist perspectives. It also intends to present an examination of the research which have been narrowly descriptive and theoretically inadequate. The objective of the course is to acquaint students with analytical interpretations of the situations within which minority groups find themselves.

SOC 408 Peoples and Cultures of Native North America 3 credits

(Prerequisite: SOC 130)

This course is designed to show the continuum of indigenous cultures in North America, from pre-Columbian times to the present, and to analyze historical, ecological and empirical field data as a basis for the study of cultural process and change. Students will study in-depth selected Amerindian and Eskimo cultures and will analyze the processes of cultural change which have affected the indigenous cultures of North America. In this way, they will become aware of the need for cross-cultural perspective as a broader basis for an understanding of the ways in which these processes affect interethnic and interracial interaction in the United States today.

SOC 409 Social Problems and Social Policy 3 credits

Selected social problems are examined to understand their origins, structure and influence on society. Various societal reactions will be investigated, with particular emphasis upon understanding the role of social theory, law, and social science research upon the development of legislation. The functions of social policy, social planning and program development will also be analyzed. Participants will initiate, execute and evaluate "action-oriented" fieldwork projects.

SOC 421 The Sociology of Revolution 3 credits

(Prerequisite: SOC 110)

This course will examine revolution as a social phenomenon in which the causes, forms and methods of revolution will be analyzed. Particular attention will be given to contrasting the theories of revolution of the traditional Marxian urban worker-centered insurrection as opposed to the Third World (Black) guerrilla warfare approach. Stress will also be given to the task of showing how these two theories have been integrated into the pre-revolutionary stage of the Black struggle in this country as exemplified by such groups as the Black Panthers, S.N.C.C., D.R.U.R., and the Black Student Movement.

SOC 423 History of Social Theory 3 credits

(Prerequisite: SOC 110)

This course will involve a history of ideas on the social order. Beginning with the early modern contract theorists (Hobbes, Locke, Rousseau), the course will trace the development of a scientific approach to society. On the broad theoretical level, the course will involve an analysis of such concepts as conflict, consensus, integration and cohesion of social units, alienation and anomie, and the nature of authority.

SOC 439 Basic Peace Studies 3 credits

An analysis of how society systematically creates war as a normal function of conflict resolution and social control; and how individuals and groups can organize strategies to neutralize and change this process. T.S. Kuhn's concept of a paradigm is used as an organizational technique. Critical issues of disarmament, social equity, political freedom, and economic justice are discussed as essential to peace.

SOC 440 Alternatives to Armed Force and Aggression 3 credits

A survey of the causes and effects of warfare, with an emphasis upon alternatives to warfare through new social structures, models for world order, social justice and cooperative conflict resolution. Will provide the student with a broad body of information on the contemporary concepts regarding human aggression, causes of war and results of war. Introduction of historical and theoretical concepts which might provide viable alternatives to existing methods of conflict resolution on an international scale. Will provide an opportunity to critically evaluate both existing and theoretical models of conflict resolution in international affairs and to construct personal convictions and concepts regarding these models.

SOC 450 Shamans, Witches, and Magic 3 credits

This course provides the student with insights into the meaning of witchcraft and sorcery as manifestations of the belief in the supernatural. It gives the student an opportunity to learn about the functions of

witchcraft and sorcery in specific societies, and to study the cultural role of the shaman, witch, and sorcerer.

SOC 455 Crime and Delinquency 3 credits

(Prerequisite: SOC 110 or permission of instructor)

This course will analyze various aspects of crime and delinquency as a form of social deviancy. After studying an historical background with regard to theories of crime causation, the class will analyze the etiology of crime in a contemporary context. The course will then involve the study of criminal law and its administration, and an analysis of the control and prevention of criminal behavior.

SOC 490 Human Sexuality 3 credits

(Offered jointly by the Sociology, Psychology, Biology and Health and Physical Education Departments.)

The normal anatomy and physiology of the male and female reproductive system will be explained in detail in the first part of the course. This will include the embryological development of the systems, hormonal controls, physiology of structure, copulation, fertilization, embryology and birth. The segment of the course dealing with psychology will provide the student with an opportunity to evaluate his own ideas about human sexuality and to compare his ideas with those of other students in the class. The class sessions will be devoted to a development of the individual's values within the framework of current psychological information regarding sexuality, specifically, and psychological development, generally. An important emphasis will be on the interaction between the biological and psychological needs of the individual. The sociological section will include an analysis of the role of the family in developing attitudes, values, and norms, role expectations of men and women, sexual norms, the values determining choice of contraceptive methods, and special problems in American society such as abortion, homosexuality, unwed motherhood, and incest. In addition, this course will also deal with curriculum and instruction, so that student will be able to

analyze and evaluate the issues surrounding sex education in the schools. This part of the course is designed to equip the future teacher with the knowledge of methods and resources which will enable him to teach sex education in an enlightened and responsible manner.

SOC 499 Independent Study 1-3 credits

As approved and to be arranged.

SPANISH

SPAN 109 Introduction to Spanish Culture and Language 3 credits

An introductory course in the language and culture of Hispanic peoples. The basics of Spanish pronunciation and vocabulary, fundamental forms and rudiments of sentence structure. Concomitant with a familiarization of basic Spanish, cultural topics relevant to college students of today are discussed in English.

SPAN 110 Basic Spanish I 4 credits

(Prerequisite: 0-1 year high school Spanish)

This course introduces the student to the basic elements of the Spanish language as used in contemporary Spanish conversation in everyday situations. The student will also be exposed to basic forms of the written language and carefully graded readings aimed at widening his working vocabulary.

SPAN 111 Basic Spanish II 4 credits

(Prerequisite: SPAN 110 or equivalent)

This course aims at increasing the student's ability to use basic forms of oral communication in Spanish through constant use of the everyday idiom. Carefully graded practice in reading and writing will supplement the conversational aspects of the course.

SPAN 112 Intermediate Spanish I 4 credits

(Prerequisite: SPAN 111, or two years of high school Spanish or equivalent)

A thorough review of basic conversation followed by an aural-oral presentation of such topics as travel, student life, careers,

sports, fine arts, industry, politics, etc. A review of the essentials of Spanish, development of a larger vocabulary, including idioms, discussion of selected short stories and other selected areas of students' interests are included in the course.

SPAN 113 Intermediate Spanish II
4 credits

(Prerequisite: SPAN 112 or equivalent)

A continuation and intensification of Intermediate Spanish I. Guided discussion on a more sophisticated level. A variety of modern selections, prose and poetry, from the many Spanish-speaking countries such as Puerto Rico, Mexico, Cuba, Colombia, Argentina, etc. will be integrated into the course.

SPAN 114 Contemporary Spanish for Native Speakers **3 credits**

(Prerequisite: Written permission of Departmental Spanish Advisor)

A study of the oral and grammatical structure in today's standard Spanish. Intensive practice in oral and written composition. For native speakers only.

SPAN 115 Spanish Mini Course I
1 credit

SPAN 116 Spanish Mini Course II
2 credits

SPAN 117 Spanish Mini Course III
3 credits

The Spanish Mini Courses are introductory courses in the language and culture of the Hispanic world. Their aim is to develop the student's ability to understand, write, and speak basic and simplified Spanish. The basics of pronunciation and vocabulary as well as those of sentence structure will go together with an understanding of the Hispanic culture as it exists, here, in the United States.

SPAN 118 Spoken Spanish for Tourists
3 credits

This course develops the student's ability to speak, understand and read basic and simplified Spanish.

SPAN 221 Spanish: The Spoken Language **3 credits**

(Prerequisite: Intermediate level proficiency)

A guided introduction to the basic problems of the Spanish language based on structural and descriptive analysis of the Spanish sound system. Throughout the course emphasis is placed on the spoken language.

SPAN 222 Advanced Spanish Conversation and Composition **3 credits**

(Prerequisite: Intermediate level proficiency)

Advanced oral and written communication in Spanish as a dynamic process. Practical application of content and theory in speaking and oral reading situations. Analysis of various writings to discover principles and techniques to be applied by the student in his own writing, including compositions, letters, research papers, articles, books and drama reviews.

SPAN 230 Introduction to Spanish Literature I **3 credits**

(Prerequisite: Intermediate level proficiency)

Survey of Spanish literature from the beginning to 1700.

SPAN 231 Introduction to Spanish Literature II **3 credits**

(Prerequisite: Intermediate level proficiency)

Survey of Spanish literature from 1700 to the present.

SPAN 240 Hispanic Culture I: Spain **3 credits**

(Prerequisite: Intermediate level proficiency)

Synthesis of cultural characteristics of Spain, as expressed through the centuries in literature, art, philosophy, and social institutions.

SPAN 241 Hispanic Culture II: Spanish America **3 credits**

(Prerequisite: Intermediate level proficiency)

Synthesis of cultural characteristics of Spanish America as expressed through the centuries in literature, art, philosophy, and social institutions.

SPAN 300 Twentieth Century Spanish Literature in Translation
3 credits

A selective study of the major literary figures and significant trends in twentieth century Spanish literature. Emphasis is on such figures as Baroja, Unamuno, Ortega y Gasset, A. Machado, Jiménez, Salinas, Lorca, Guillén and Cela.

SPAN 301 Masterpieces of Spanish Literature in Translation
3 credits

Some masterpieces of Spanish literature will be discussed from the point of view of their universal appeal. *Don Quixote* by Cervantes; *The Cid*; *Life is a Dream* by Calderon; the *Celestina*; and Tirso de Molina's dramatic prototype of Don Juan.

SPAN 302 Caribbean Culture and Literature of the Twentieth Century
3 credits

(Course to be conducted in English)

A study of the Spanish American social and literary traditions in the Caribbean area (Dominican Republic, Puerto Rico, and Cuba) and of their major cultural works from the beginning of *Modernismo* to the present. Representative works of Hostos, Martí, Henríquez, Ureña, Loynaz, Lloréns Torres, Brull, Palés Matos, Florit, Guillén, del Cabral, Marqués, Bosch, Carpentier, Laguerre, etc.

SPAN 330 Spanish Literature of the Twentieth Century
3 credits

(Prerequisite: Intermediate level proficiency)

Selective study of the major literary figures and significant trends in twentieth century Spanish literature. Emphasis on such figures as: Baroja, Unamuno, Azorín, Valle-Inclán, Ortega y Gasset, Benavente, Pérez de Ayala, Machado, Jiménez, Salinas, Lorca, Guillén, Aleixandre, Sastre, Gironella, Cela and Laforet.

SPAN 331 The Golden Age of Spain
3 credits

(Prerequisite: Intermediate level proficiency)

This course discusses the great creations of Spanish Golden Age (excluding drama). *El Lazarillo de Tormes* and *El Buscón* are read as examples of picaresque novels. Fray Luis de León, Santa Teresa de Jesús and San Juan de la Cruz are read as examples of mystical literature. An introduction to *Novelas Ejemplares* and *Don Quixote* by Cervantes is also included.

SPAN 332 The Drama of the Golden Age
3 credits

(Prerequisite: Intermediate level proficiency)

Study of the development of the national theatre of Spain through the plays of Lope de Vega, Tirso de Molina, Mira de Amescua, Calderón de la Barca, Alarcón, Guillén de Castro and others.

SPAN 333 The Literature of Spain Until the Renaissance
3 credits

(Prerequisite: Intermediate level proficiency)

A study of early literature of Spain from the *Cantar de Mio Cid* until *La Celestina*. Writers such as the Arcipreste de Hita, Don Juan Manuel and Fernando de Rojas will be read extensively.

SPAN 334 Romanticism in Spain: Prose and Poetry
3 credits

(Prerequisite: Intermediate level proficiency)

A study of poetry and prose of the Spanish romanticists. In the Post-Romantic period special attention will be given to Bécquer and the aesthetics of the new poetry.

SPAN 335 Modern Spanish American Drama
3 credits

(Prerequisite: Intermediate level proficiency)

Study of representative dramatists from 1900 until the present. Writers to be included are Florencio Sánchez, Usigli, Marqués, Wolff, Arriví, Solórzano, Dragún, and Villaurrutia.

SPAN 336 Modernismo
3 credits

(Prerequisite: Intermediate level proficiency)

A study of the "modernismo" literary

movement in Spanish America, from its beginning in 1882 to its conclusion in approximately 1917. Emphasis is given to those countries as Cuba and Mexico where the new form of writing first developed as well as to Argentina and Mexico where the literary movement became world known. Representative works of Martí, Gutiérrez Nájera, del Casal, Silva and Darío, who make up the so-called First Generation of Modernist Writers; Darío, Lugones, Herrera y Reissig, Valencia, Chocano, Nervo, Díaz Rodríguez, Reyes, (among others) compose the Second Generation.

SPAN 337 The Romantic Theatre in Spain 3 credits

(Prerequisite: Intermediate level proficiency)

The emergence and development of the Romantic Theatre in Spain; in-depth study of such works as *Don Alvaro o la fuerza del sino*, *El Trovador*, *Don Juan Tenorio* and *Los amantes de Teruel*.

SPAN 350 History of the Spanish Language 3 credits

A study of the development of Romance into the various Hispanic languages and dialects. Special emphasis is given to Castilian and to the Spanish of Spanish America. A basic knowledge of Spanish is recommended.

SPAN 430 The Literature of Spanish America to Modernism 3 credits

(Prerequisite: Completion of one 300-level course in Spanish)

A study of main developments, literary currents, and representative authors from the colonial period until 1888.

SPAN 431 The Modern Literature of Spanish America 3 credits

(Prerequisite: Completion of one 300-level course in Spanish)

A study of main developments, literary currents, and representative authors from 1888 until the present.

SPAN 432 The Novel in Spanish America I 3 credits

(Prerequisite: Completion of one 300-level course in Spanish)

Study of selected novels representative of such movements and literary currents as Romanticism, Realism, Naturalism, and Modernismo in Spanish America.

SPAN 433 The Novel in Spanish America II 3 credits

(Prerequisite: Completion of one 300-level course in Spanish)

Study of selected novels of the Mexican Revolution and representative novels of such movements as Regionalismo, Criollismo, and Realismo Mágico among others.

SPAN 434 The Nineteenth Century Novel of Spain 3 credits

(Prerequisite: Completion of one 300-level course in Spanish)

A selective study of the major novelists and significant trends in the nineteenth century Spanish novel. Emphasis is on such figures as: Alarcón, Pereda, Valera, Galdós, Pardo Bazán, and Alas.

SPAN 435 Cervantes and His Age 3 credits

(Prerequisite: Completion of one 300-level course in Spanish)

A study of Cervantes' artistic creation and its relation to the culture of the sixteenth century. Special emphasis is given to *Don Quixote* and the development of the novel as a genre.

SPAN 436 The Modern Spanish American Essay 3 credits

(Prerequisite: Completion of one 300-level course in Spanish)

A selective study of the representative essay writers in Spanish America. Emphasis is placed upon major opinion shapers, such as Varona, de Hostos, Rojas, Reyes, Henríquez Ureña, Picón Salas, Arciniegas, Mariátegui, etc.

SPAN 480 Seminar 3 credits

(Prerequisite: One 300-level course in Spanish American literature)

Puerto Rican Literature, José Martí, Rubén Darío, etc.

SPAN 481 Spanish Seminar 3 credits

(Prerequisite: One 300-level course in Spanish literature)

An in-depth study of a selected author or theme, such as Quevedo, the Spanish Mystics, the Picaresque Novel, etc.

SPAN 499 Independent Study 1-3 credits

As approved by the department.

SPECIAL EDUCATION

SPED 201 Psychology and Education of the Handicapped 3 credits

A study of the social, emotional, physical and learning characteristics of handicapped children. Methods of diagnosis and differentiations, curriculum and teaching techniques, materials, resources, and employment for their education. Psychological basis of the suitable curriculum. Introductory course for special education majors.

SPED 205 Early Childhood Curriculum for Handicapped Children 3 credits

This course will provide an in-depth study of the characteristics and needs of pre-school handicapped children. Emphasis will be placed upon teaching techniques, materials, and programs most appropriate for these children.

SPED 210 Education of the Profoundly Retarded 3 credits

This course is designed to provide students with the developmental model of training and educating profoundly retarded children and adults. The course will examine homes, schools, and institutions as well as new alternatives for delivering care to profoundly retarded.

SPED 215 Rights of the Handicapped 3 credits

This course will examine litigation and legislation related to the rights of handicapped persons. These actions will be considered within a sociological and educational context. Resultant ideologies and issues will be explored in relation to the changing role of the special educator.

SPED 301 Education of the Trainable Mentally Retarded²⁴ 3 credits

(Prerequisite: SPED 201)

Methods for educating mentally retarded children who would not benefit from the educable classes for the mentally retarded. Instructional materials, techniques, and resources. Study of existing programs on a state and national level. A practicum is included in this course.

SPED 302 Education of the Educable Mentally Retarded I²⁴ 3 credits

(Prerequisite: SPED 201)

Methodology and curriculum development for the mentally retarded at primary and intermediate levels. Organization and planning of activities and materials; use of resources; selection of equipment, records and reports, guidance, health, and welfare services.

SPED 303 Education of the Educable Mentally Retarded II²⁴ 3 credits

(Prerequisite: SPED 302)

Methodology and curriculum for the mentally retarded at junior and senior high levels. Consideration of employment opportunities. Job analysis, guidance, and placement procedures.

SPED 304 Teaching Reading to the Mentally Retarded²⁴ 3 credits

(Prerequisite: SPED 201; Corequisite: SPED 302)

This course is designed to acquaint teachers of the mentally retarded with the techniques of teaching reading. Emphasis will be placed on the effective use of these techniques to meet special needs of the mentally retarded. Included will be recent developments in the treatment of children with learning and perceptual problems.

SPED 305 Art Activities in Special Education 3 credits

(Prerequisite: SPED 201)

Art activities as modes of perception and intergration fundamental to human growth and learning. Art forms suitable in the teaching of the handicapped.

SPED 320 Practicum in Special Education 3 credits

(Prerequisites: SPED 302 and Preliminary Field Experience; Corequisite: SPED 303)

In the practicum experience, students are assigned to work in a variety of Special Education centers. The practicum is the second half of the junior field experience in Special Education. (The first half is completed concurrently with SPED 302.) The student spends one full day per week in a participating school. Experiences include observation of exceptional children and teaching individuals and small groups under supervision. Students register for this course with the Office of Field Laboratory Experiences the semester *prior* to taking SPED 303.

SPED 404 Seminar in Student Teaching
1 credit

(Corequisite: SPED 403)

Current trends and developments in public education are explored. Particular attention is given to classroom management and other problems which confront student teachers. The course will be conducted during the semester of the student teaching experience.

SPED 410 Counseling and Vocational Guidance for Handicapped Children
3 credits

(Seniors Only)

A study of existing rehabilitation resources in the community. The contributions and services to the child and his family of the rehabilitation team. The availability of these services and guidance as to their uses will be stressed.

SPED 411 Prescriptive Teaching
3 credits

(Seniors Only)

This course deals with methods for applying various special teaching techniques to the diagnosis and education of the child with multiple handicaps. Integration of perceptual, motor, sensory, and management approaches are included. A practicum comprises a part of this course.

SPED 412 Education of Emotionally and Socially Maladjusted
3 credits

(Seniors Only)

The identification and classification of

emotionally disturbed and socially maladjusted children. A study of the organization of classes and teaching methods.

A small number of seniors enrolled in this course will have option of assignment to a special section in conjunction with the "therapeutic tutoring program."

Information relating to this program is provided in a bulletin available from the department. (The program may not be offered every semester.)

SPED 413 Education of the Neurologically Impaired and Physically Handicapped
3 credits

(Seniors Only)

Learning problems stemming from physical handicaps and neurological impairment in children with basically normal intelligence and sensory abilities will be presented. Course content will include therapies, teaching techniques, and procedures for assessment of progress and an exploration of basic and recent literature.

SPED 430 Education of the Exceptional Child
3 credits

(Non-Special Education Majors)

Planning and organizing instructional materials and activities and the use of environmental resources in working with children who are exceptional—mentally, physically or emotionally. The adaption of programs to the needs of exceptional children in regular classes and in special groups.

SPED 499 Independent Study 1-3 credits

As approved and to be arranged.

SPEECH PATHOLOGY

PATH 160 Phonetics
3 credits

A study of sounds, stress, phrasing and intonation as it relates to American English speech. The International Phonetic Alphabet will be studied as a system for recording pronunciation and analyzing speech patterns. Practice in kinesiological application of sounds, written transcriptions and auditory analysis of speech patterns will be emphasized.

PATH 205 Speech Laboratory I 1 credit

Students observe and evaluate a minimum of 25 hours of therapy for speech, hearing and language problems. Weekly meetings are held to introduce students to clinical procedures.

PATH 261 Speech Disorders 3 credits

(Non Speech Pathology Majors)

This course focuses on the normal acquisition and development of speech and language and on the organic and functional factors which interfere with normal acquisition and development. The role of the special education teacher in the school speech therapy program will be considered.

PATH 262 Orientation to Speech Pathology and Audiology 3 credits

An introduction to the historical development, present scope, and trends in speech pathology and audiology will be presented with a specification of problems and an introduction to therapeutic principles and methods. Important terminology appropriate to the areas of specialization and responsibilities as a team member in a paramedical profession will be included.

PATH 263 Articulation Disorders 3 credits

(Prerequisite: PATH 262)

A study of the normal acquisition and development of articulation and of etiologies, evaluation and therapy procedures for articulation disorders.

PATH 302, 312, 402 Speech Laboratory II, III, IV 1 credit each

Student receives a minimum of 30 hours of supervised clinical experience working with children with speech, hearing or language disorders. Lesson plans and evaluations are required for all students. In addition, weekly meetings are held to review clinical procedures.

PATH 361 Anatomy and Physiology of the Auditory and Vocal Mechanism 3 credits

(Prerequisite: BIO 214)

Anatomy and physiology of the respiratory, articulatory, vocal and auditory mechanisms and their application to speech and hearing disorders.

PATH 363 Introduction to Audiology 3 credits

(Prerequisite: BIO 214)

Pathologies of the auditory system and basic tests used in the identification and diagnosis of hearing loss: Pure tone air—and bone—conduction audiometry, principles of masking and speech audiometry. Implementation of school hearing conservation programs.

PATH 364 Voice and Speech Production 3 credits

A study of the speech mechanism and its relationship to the development and mastery of basic breathing, vocal and articulation skills. Practice and application of these skills for individual improvement is emphasized. Students in speech pathology, communication, teacher education, business, theater, radio, singing and allied fields are encouraged to master these skills for professional enrichment. Special attention is given to individual voice, articulation and communication problems. Conference and practice hours to be arranged.

PATH 365 Voice Disorders in Children 3 credits

An introduction to and the study of functional and organic voice disorders in children. This course deals with etiology; classification, methods of diagnosis and evaluation; therapy methods and techniques.

PATH 366 Language Theory and Therapy 3 credits

(Prerequisite: PATH 160)

A general introduction to the study of normal and abnormal language systems and behavior. Topics include: cognition and language, language analysis, normal development, application of developmental psycholinguistics to language therapy.

PATH 404 Seminar in Student Teaching 1 credit

Current trends in speech correction in the schools will be discussed. Particular attention will be directed toward scheduling, group management and other problems which confront student teachers. The course will be conducted during the semester of the culminating field experience.

PATH 410 Language Development and Speech Improvement
3 credits

(Non Speech Pathology Majors)

The study of normal speech and language acquisition and speech and language problems. Consideration is given to:
1) language acquisition, improvement and change.
2) linguistic and phonetic elements of oral language with emphasis on pre-school and early childhood developmental language programs
3) fundamental concepts of articulation and voice production
4) basic understanding of severe speech problems.

PATH 411 The Nature of Speech Language and Communication Systems
3 credits

(Majors and Non Majors)

This course is intended to be a general orientation to the study of human language communication. It will survey a large number of relevant topics including: the nature of the speech signal, the structure and content of language, the nature of communicative interaction, human vs. animal communication, the relationship between language and thought, dialect variation and bi-lingualism, the relationship between the written and spoken systems.

PATH 412 Language Laboratory V
1 credit

(Prerequisites: PATH 366 and Speech Labs I & II)

This course provides an opportunity for students to acquire supervised experience and practice in the assessment and therapy of language disabled children. Students must meet a minimum of thirty (30) therapy hours plus fifteen (15) seminar hours per term.

PATH 413 Voice Laboratory VI 1 credit

(Prerequisites: PATH 365 and Speech Labs I and II)

Supervised clinical experience in diagnosis, evaluation, and therapy for voice problems in adults and children.

PATH 425 Teaching Speech 3 credits

This course is concerned with the speech therapist's role in the development and conduct of speech improvement programs in the Public Schools. Speech materials suitable for use with school age children according to the classroom curriculum needs will be reviewed and discussed. Special attention will be given to materials to be used in speech and language programs dealing with school age children who have speech and language problems.

PATH 426 Organizing Speech and Hearing Programs 3 credits

This course will deal with the factors important to the organization, administration and supervision of speech and hearing programs in the public schools. The school speech pathologists' inter-professional relationships as they relate to the program will be considered.

PATH 462 Auditory Rehabilitation
3 credits

(Prerequisite: PATH 363)

Principles of therapy and clinical techniques for the development of speech and language for the hearing impaired. Management procedures in speech and language habilitation and/or rehabilitation to include auditory training, speech-reading, and selection and use of appropriate amplification systems.

PATH 463 Stuttering and Other Rhythm Disorders 3 credits

(Prerequisite: PATH 363)

This course includes significant theories, research, and practices in therapy for children and adults; preventive principles in the home for younger children; and evaluative and therapeutic procedures in the clinic and classroom for older children and adults.

PATH 499 Independent Study 1-3 credits

As approved and to be arranged.

TEACHER EDUCATION

TED 210 Educational Psychology: Multidimensional Characteristics of People and Habitats 3 credits

(Prerequisite: PSY 110)

Factors within the child and outside him which influence his development are studied. There is comprehensive coverage of basic developmental concepts and principles, discussion of developmental issues as well as trends in research and their applications. In the study of human development, the student must become aware of the full human life span. Therefore, it is important to develop competence in understanding the processes and experiences of childhood that have contributed to adult behavior.

TED 221 Crafts in the School 3 credits

A workshop in which the student designs and executes problems in wood, clay, metal, leather and weaving in terms of his interests and the general level in which he expects to teach. The relationships of crafts to elementary education are explored.

TED 224 Puppetry 3 credits

The design and construction of puppets and marionettes, writing of scripts and the production of shows, with reference to instruction in elementary schools.

TED 230 Explorations in Art 3 credits

An art workshop planned for the elementary education major to gain knowledge and direct experience in creative activities. Students produce a number of art projects involving various methods and materials appropriate for teaching in the elementary grades.

TED 231 Concepts and Skills of Elementary Mathematics 3 credits

The purpose of this course is to help the student understand, define and organize those concepts which he will be expected to teach in the elementary grades. Opportunity is provided for the student to improve his skills in the mathematical processes.

TED 232 Fundamentals of Music 3 credits

The elements of music including notation, the formation of scales, keys, diatonic chords, tonal and rhythmic patterns. The student should acquire the ability to sing a simple melody at sight and carry a harmony part in a two or three part song.

TED 234 Concepts and Skills in the Social Studies 3 credits

This course will identify the organizing concepts of each of the social science disciplines of anthropology, economics, geography, history, political science, and sociology as they apply to the social studies for the elementary school. It will highlight the content background necessary for the skills that are considered the particular responsibility of the social studies teacher in the classroom.

TED 239 Concepts and Skills in Elementary Science 3 credits

Emphasis is placed on the identification of basic concepts which describe the natural world. Scientific research techniques are taught. Current issues in science are covered each class period. Skills of inquiry, gathering and evaluating evidence for making valid descriptions of natural phenomena are pursued. New elementary school science curriculum studies with their sequential conceptual schemes are examined in the light of their implications or innovations at all levels.

TED 300 The Elementary School 3 credits

Current and changing perspectives in education as they apply to the organization of the elementary school, including implications for current development and teacher preparation. The role of the elementary teacher in team teaching, open classroom, middle school and other experimental settings will be explored. Classroom management and its relation to curriculum will be emphasized. Correlation of work in language arts, social studies, science, mathematics, health and physical education, and fine and practical arts will be given attention.

TED 310 Educational Psychology: Adaptations and Interventions in the Classroom 3 credits

(Prerequisite: PSY 110)

The science of psychology applied to the art of teaching. Practical approaches in developing the habit of applying principles and theories developed by psychologists. The student will be encouraged to think about his development as an educator—his becoming a teacher.

TED 444 Science Projects for Teachers
3 credits

Science projects suitable for the Elementary school will be expected in this Teacher Education course. Each student will conduct a research project for Elementary Education in either a biological, physical or earth science field. Techniques on setting up experiments, the role of the library, functions of controls, replicates and statistical analysis on the data obtained will be covered in this course.

TED 499 Independent Study 1-3 credits

As approved and to be arranged.

TEACHER-LIBRARY/MEDIA

LMS 201 Introduction to Library/Media Services
3 credits

A survey of the fields of librarianship and educational media concentrating upon the joint provision of print and nonprint materials and equipment to teachers, students, and others. The history, philosophy and development of the emerging service patterns of library media agencies will be explored with a critical examination of the roles of professional, paraprofessional, and clerical staff. The types of library/media centers (and their organizational structure) found in America, the kinds of materials collected and disseminated, the future of the profession, and the opportunities for library/media careers are some of the topics that will be included.

LMS 202 Information Sources 3 credits

The examination and critical analysis of the philosophy and principles of providing information to library/media center clients in support of student and curricular needs. Basic reference materials will be reviewed within the context of retrieving information to meet individual needs. Simulation of the

reference interview situation, with a concentrated examination of the process of question—negotiation and individual information—seeking behavior will also be included.

LMS 203 Media Selection for Children
3 credits

Study of the basic aids, methods and criteria for selecting print and nonprint materials for children; principles of evaluation for building and maintaining a collection in the school library/media center; techniques and practice in the art of storytelling with emphasis on sources of materials and adaptations for story programs.

LMS 204 Bibliographic Techniques
3 credits

(Prerequisite: LMS 202)

Selection, evaluation, and use of intermediate and advanced reference sources used in subject fields. Analysis and preparation of selected bibliographics designed to assist students and teachers. Development of the reference information collection will also be discussed.

LMS 302 Media Selection for Adolescents
3 credits

Basic principles in the selection and evaluation of print and nonprint media for adolescents; methods of stimulating reading interests, including the techniques of book talks; emphasis on use of selection aids and on reading and evaluating current printed materials in the fields of interest of young people.

LMS 303 Organization of Information Media
3 credits

An introduction to the organizational (technical) services carried out in a library/media center by professional, paraprofessional, and clerical staff. The functions of acquisitions, cataloging, classification, and inventory control (file maintenance and record keeping) will be examined in relation to print and nonprint materials.

LMS 304 Instructional Media and the Curriculum
3 credits

A curriculum centered analysis of the

nature and content of instructional materials with emphasis upon the methods of selecting and evaluating nonprint media as they relate to the teaching-learning process. Instructional techniques in the use of nonprint media with students and teachers will also be examined.

LMS 305 Library/Media Field Experience 1 credit

(Prerequisite: LMS 201)

100 clock hours of assistance in a library/media center, approved by the advisor, is to be completed before the senior year. A report of this work experience will be required in Services of the School Library/Media Center.

LMS 321 Visual Media 3 credits

Visual literacy will be defined and its uses discussed. The approach to the study of visual media shall be pragmatic. Application of still photography and motion pictures to vocational and avocational needs of the student to communicate will be studied. Uses of simple darkroom techniques and exposure skills will be developed. Emphasis will be on black and white still photography application with an introduction to color.

LMS 323 Modern Educational Media 3 credits

An examination of the role of educational media in the learning process with an emphasis upon nonprint hardware and equipment. The organization and maintenance of media hardware in the library/media center will be studied along with actual student utilization of equipment in a laboratory setting. Individual mediated projects which successfully communicate an instructional message will be required.

LMS 397 Library/Media Internship 3 credits

(Prerequisites: Three Library/Media Courses)

150 hours of supervised practicum (8 weeks). The student will spend his time in a school library/media center working as an associate educational media specialist.

LMS 401 Preparation of Media Materials 3 credits

This course is designed to help the teacher-library/media specialist in the preparation of simple, hand-made materials such as manipulative teaching devices, bulletin boards, and more sophisticated processes such as photography and production of overhead transparencies. Sources of materials and bibliographic references for other production methods will also be explored.

LMS 402 Services of the School Library/Media Center 3 credits

(Prerequisites: Four Library/Media Courses)

Organization and administration of the school library/media center with emphasis upon the center's services and functions and its place in the educational program objectives, standards, housing and equipment, general routines, instruction in the use of the library, activities and exhibits. Culminating course in sequence.

LMS 403 Instructional Techniques 3 credits

(Elective—may be counted for AV course)

A creative investigation into alternative educational delivery systems. This course includes directed examination of instructional uses for media to facilitate software materials developed by course participants. Software designed to effect meaningful behavior change for educational outcomes will be validated by measurement devices developed by the instructor and students.

LMS 499 Independent Study 1-3 credits

As approved and to be arranged.

THEATRE

A. Foundations Courses

(The following three courses are especially designed to satisfy Liberal Studies requirements.)

THEA 101 Introduction to Theatre 3 credits

An informative study of the dramatic process covering all facets of play production. The course is approached from the appreciation point of view and is

especially suited to students seeking Liberal Studies credit.

THEA 102 Fundamentals of Acting
3 credits

A practical introduction to the contemporary skills and techniques of acting through exercises designed to develop the student's individual creative abilities and self-confidence. This course is especially suited to students seeking Liberal Studies credit.

THEA 103 Basic Design for the Theatre
3 credits

This course will introduce the student of theatre to the basic principles, theories and practices of designing for the theatrical media through lecture, demonstration, and related projects executed by the student.

B. Major Courses

Required:

THEA 161 Acting: Principles of Characterization **3 credits**

Basic principles in the development of character through play analysis, improvisation and scene work.

THEA 162 Stagecraft I **3 credits**

A practical study of the stage and related facilities and their use within the production framework. The course includes instruction in the basic methods of stagecraft, including backstage organization, stage management, and the methods of production of set building, set painting, lighting, costuming and sound.

THEA 210 Playscripts I **3 credits**

A study of playscripts in terms of both their fictional, narrative content and their theatrical structural function. Investigation of the reasoning process involved in visualizing the transformation of a script on the page into a play on the stage.

THEA 232 Basic Costuming and Makeup
3 credits

A practical study of the purpose, function, and organization of costuming and makeup within the production framework. The course includes instruction in the basic methods of the makeup and the craft of

costuming a production including selecting, building, and organizing costumes for a specific production.

C. Practicums

THEA 111 Theatre Administration Laboratory **1 credit**

A practical application of the administrative aspects of audience management, including finance-related operations such as box office, public relations, and house management. May be repeated.

THEA 112 Technical Theatre Laboratory
1 credit

A practical application in the technical aspects of play production. Back stage assignments under faculty supervision. May be repeated.

THEA 163 Stagecraft Laboratory **1 credit**

A practical application of the principles of stagecraft. Production-related projects in such crafts as scenic construction, scene painting, properties, lighting and sound.

D. Major Electives

Acting/Directing

THEA 213 Acting: Scene Study **3 credits**
(Prerequisite: THEA 161)

An advanced course in acting techniques with an introduction to various styles and approaches through group scene work.

THEA 223 Stage Speech I **3 credits**

A comprehensive and practical study of accepted stage speech, including American and foreign dialects.

THEA 262 Readers Theatre **3 credits**

Analysis and group performance of various modes of literature. Emphasis is upon the appropriate speech, body language, and staging techniques needed to effectively and theatrically share the written material with an audience.

THEA 312 Directing **3 credits**

Theory and practice in the fundamentals of staging a play; script selection and analysis, casting, coordination of production elements, planning rehearsals for specific purposes. Problems, suspense,

climax, and creating a mood. Individual projects required.

THEA 320 Movement Training for the Actor I 3 credits

Basic and practical instruction in the specific techniques and exercises needed in freeing and developing the actor's body. Special emphasis is placed on dance as an interpretative element of playmaking. Fundamental instruction in ballet and modern.

THEA 372 Makeup for the Actor 3 credits

Techniques of straight, corrective, and character makeup application, and a study of makeup styles for specific periods in theatrical history for the actor.

THEA 375 Acting: Alternative Techniques 3 credits

A concentrated study of contemporary, experimental acting practice appropriate to the creation of roles in non-realistic dramaturgy, such as the works of Beckett, Ionesco, van Itallie plus scripts created by the Open Theatre and the Polish Laboratory Theatre.

THEA 376 Acting: Musical Theatre 3 credits

A supervised study of the techniques appropriate to developing roles in musical theatre. Special attention will be given to the interpretation of a musical selection.

THEA 412 Children's Theatre 3 credits

Study of the educational and artistic modes of contemporary Children's Theatre. Styles of presentation and children's dramatic literature are a major focus of the course.

Design/Technical

THEA 330 Scene Painting I 3 credits

A study of the basic styles of theatrical painting. Concentration will be given to dry pigments and casein mediums. This course will allow a student to develop a basic ability to interpret the scenic designer's elevations and reproduce them for the stage.

THEA 332 Costume Construction 3 credits

The course will introduce the student of the theatre to the basic principles, theories and practices of constructing theatrical costumes through lecture, demonstration and practical projects executed by the student. The methods and materials for the construction of costume accessories will also be included.

THEA 333 Stage Management 3 credits

Introductory training in the duties of the manager in the normal process of producing a play. Audition, rehearsal period, performance and post performance functions and procedures will be examined.

THEA 334 Stage Lighting 3 credits

Training in problems of stage lighting design and practical application of principles and techniques. Individual projects required.

THEA 379 Scene Design I 3 credits

Investigation of the problems of scene design and its application to theatrical production in various forms. Individual projects required.

THEA 380 Scene Design II 3 credits
(Prerequisite: THEA 379)

A comprehensive examination of set design for the theatre, emphasizing the development of rendering and model-building techniques for presentational purposes. Students will provide settings for major projects in laboratory situations.

THEA 384 Advanced Lighting and Sound 3 credits

Advanced training in the problems of lighting design and control as related to theatrical productions. The use and application of sound effects and the development of sound systems for theatrical productions will be examined in detail.

THEA 430 Scene Painting II 3 credits

Advanced scene painting techniques and a continuation of Scene Painting I, emphasizing material use.

THEA 481 Costume Design 3 credits

Training and experience in the problems of costume design and construction for various forms and styles of theatrical productions.

E. Directed Electives

THEA 212 Trends in Contemporary Theatre and Drama 3 credits

Through reading scripts and viewing plays and other theatrical events, the student will develop an understanding of the forms and styles of theatre today, and of theatre's role in our culture. Field trips to Broadway and off-Broadway theatres. Attendance at plays and other theatrical events is required.

THEA 310 History of Theatre to 1850 3 credits

Exploration of the historical development of dramatic form, the physical theatre, and technical theatre arts from the Greeks to 1850; investigation of the social and cultural forces which shaped the theatre and which were shaped by the theatre; development of critical standards of theatre.

THEA 360 History of Theatre from 1850 3 credits

A continuation of History of the Theatre to 1850. A study of the development of western theatre from 1850 to the present; designed to clarify the relationships among several aspects of theatre: writing, acting, staging, and architecture. Investigation of the social and cultural forces which were shaped by the theatre and which shaped the theatre; development of critical standards.

THEA 361 Theatre Criticism 3 credits

An exploration of the practice of theatre criticism. Through investigation of the analysis, interpretation, and evaluation of playscripts, performances, films and other theatrical media, the course develops the student's understanding of the critical process. Students are required to write reports, reviews, and critical essays. Field trips to plays and other theatrical events.

THEA 363 American Theatre and Drama 3 credits

The study of the development of the American Theatre and its drama from the

colonial period to the present, with emphasis on twentieth century American drama.

F. Related Courses

THEA 113 Rehearsal and Production 1 credit

(Prerequisite: Audition)

A practical application in acting under faculty supervision. Work includes rehearsing and performing a play for public presentation. May be repeated.

THEA 225 Acting: Shakespeare 3 credits

A concentrated study of the style of acting appropriate to playing Shakespearean characters.

THEA 260 Playscripts II 3 credits

A continuation of the method of studying playscripts begun in Playscripts I.

THEA 263 Development of American Musical Theatre 3 credits

A study of the history and development of the American Musical from its origin as a minor form to the present day.

THEA 273 Stage Speech II 3 credits

(Prerequisite: THEA 223)

An advanced approach to the special skills and techniques needed in the development of an actor's voice. A continuation of Stage Speech I.

THEA 281 Stagecraft II 3 credits

(Prerequisite: THEA 162)

Advanced problems in set and property construction will be examined. The particular problems in theatre renovation will also be considered.

THEA 311 Drama for Children 3 credits

Study of the importance of dramatic process in a child's individual and social growth. Investigation of the dynamics of the creative process within the formal drama (Children's Theatre) and informal drama (Creative Dramatics).

THEA 313 Theatre Administration 3 credits

Theatre operation procedures including administration, purchasing, and accounting practices, box office management, publicity promotion, and public relations and management of theatre personnel. Management problems involved in producing the play will be considered.

THEA 325 Acting: Classic Techniques 3 credits

A supervised study of the style of acting appropriate for approaching roles from major historical periods: Greek, 17th Century French, The Restoration and 18th Century England, 19th Century Melodrama.

THEA 326 Acting: Comedy 3 credits

A concentrated study of the technique appropriate in handling comedic roles.

THEA 331 Rendering 3 credits

An examination of the techniques of theatrical rendering emphasizing the use of water color and ink with college techniques. Concentration will be given to advanced stylistic approaches for both settings and costumes.

THEA 340 Movement Training for the Actor II 3 credits

Advanced practical instruction in the specific techniques and exercises needed in freeing and developing the actor's body. A continuation of Movement Training for Actors.

THEA 362 Readers Theatre II 3 credits

Advanced analysis and group performance of various modes of literature. Emphasis is upon the appropriate speech, body language and staging techniques needed to effectively and theatrically share the written material with an audience.

THEA 381 History of the Costuming 3 credits

An exploration of the historical development of dress and fashion from Biblical times to the present. The course will investigate the environmental, social

and economic factors that have influenced and affected fabrics and design.

THEA 382 Stage Drafting 3 credits

Basic training in the mechanics of theatrical drafting. Ground plans, theatrical cross sectioning and construction details will be the primary areas of concentration. Emphasis will be given to the designer processes and to methods of development of scenic elevations from ground plans.

THEA 411 Playwriting I 3 credits

A study and practice in the basic techniques of playwriting. Emphasis will be placed on dramatic structure and characterization developed through the writing of scenes and short plays.

THEA 432 Design: Periods and Styles 3 credits

An exploration of the styles and periods of ornament, architecture, and furnishings of the major historical periods. Students will be expected to assemble a basic source book of design related materials.

THEA 447 Summer Theatre Workshop I 3 credits

Training and experience in the creative process of rehearsing and performing a play before an audience. Through audition, the student will be assigned work in one of the following areas: acting, design, technical production of theatre management.

THEA 448 Summer Theatre Workshop II 3 credits

A continuation of THEA 447.

THEA 461 Playwriting II 3 credits

(Prerequisite: THEA 411)

A more advanced and demanding continuation of Playwriting I.

THEA 476 Acting: Realism 3 credits

A supervised study of realistic roles from the vast repertory of world drama.

THEA 479 Acting: Showcase 3 credits

A directed independent practicum culminating in a public performance.

THEA 498 Independent Study in Theatre Research 1-3 credits

(Prerequisite: Approval of Chairperson)

An advanced and in-depth written project under faculty supervision.

THEA 499 Independent Study in Performance 1-3 credits

(Prerequisite: Approval of Chairperson)

An advanced performance project under faculty supervision.

URBAN EDUCATION

URED 110 Introduction to Urban Studies 3 credits

A survey of urban systems with special emphasis upon the interrelationship between governmental, social, economic and physical structures in confronting major urban problems. Class work and field work combined.

URED 200 Introduction to Urban Education 3 credits

This course is intended to survey the historic, socio-political, psychological, and basic economic influences of urban life as they relate to the urban educational structures that exist today.

URED 210 Drug Use and Abuse 3 credits

The course is intended to survey aspects of basic psychological and legal information on drug use and abuse. Some field work is included in the course.

URED 301 Community Affairs Seminar and Field Study 3-6 credits

Contemporary urban issues are discussed in relation to field experience, culminating in a systems analysis of relationships between field experience and local specific problems. Readings accompany the discussions as needed.

Conducted in combination with the Community Affairs Seminar in a Field Study which requires 6-8 hours of field work each week in both community organizations and public agencies. In addition, an analysis of the field placement and its relationship to the system of which it is a part plus an evaluation of its

relationship to the target community is conducted.

URED 304 Education of the Self 3 credits

A survey of literature on humanistic education to help teachers to develop alternative approaches to reach students and to put teachers in touch with their own feelings and concerns.

URED 305 Racial Awareness 3 credits

A survey of literature on research in Racial Awareness in children. The course will also examine a multiplicity of problems related to racism in children's literature.

URED 306 Values Clarification 3 credits

Fundamental problems and strategies for examining the values in public school education. Teacher made materials and humanistic exercises will be the focus of the course.

URED 372 Development and Change in Education 3 credits

Examination of the critical problems in urban education and selected strategies for change. Emphasis of course on curriculum and teaching strategies.

URED 430 Urban Planning Process 3 credits

This course consists of the study of the urban planning process, its history, theory and practice, including special planning problems.

URED 480 Ethnic Dance 3 credits

Survey of the cultures of European, Slavic, African, and Latin peoples with emphasis on varieties of dance as an expression of culture.

URED 481 Science in the City 3 credits

This course surveys major selected science principles from the physical and biological sciences. Examples from an urban environment are discussed in class. The students' field work during the second half of the semester involves discovering, describing, and photographing at least fifty percent of the examples within the urban areas. Specific times and locations are

entered in the final report with photographs.

URED 482 The Inner City Child and His Environment 3 credits

This course concerns itself with the problems of the inner city child in the urban crisis. Special attention will be given to the influences on youth by the urban community. Environmental factors will be examined in terms of race, ethnic origin and socio-economic background, showing how these factors affect a child's capacities, self-concept, motivation and intellectual potential. A critical review of literature dealing with low income youth in urban areas will be required.

URED 483 Non Partisan Political Actions 3 credits

This course deals with the methods used for conducting "grass roots" campaigning through legitimate political channels.

URED 485 Impact of Puerto Rican Child 3 credits

This course will focus on the problems created by the influx of the Puerto Rican on Urban communities. The course will examine specific educational and social problems and alternatives to effect change among Puerto Rican Communities.

URED 486 Contributions of Latin Americans to Urban Environment 3 credits

Discussion of basis and historical contributions of Latin Americans to the urban environment. The course will examine religion, diet, education, and employment of Latin Americans.

URED 487 Science Technology and the Urban Society 3 credits

Current factors affecting man's environment and producing changes in man's relationship to his world are surveyed and analyzed.

Scientific examples from the New Jersey-New York Metropolitan area are used whenever possible; conservation, the waste disposal problem, reclamation of meadowland, water purification, accidents, occupational health, sanitary sewage,

politics of pollution, location and forms of cities, urban space and renewal, rise of suburbia, transportation, city aesthetics, and future.

URED 491 Urban Colloquial Spanish 3 credits

A guided introduction to barrio Spanish of the Urban United States based on a structured and descriptive analysis of the sound system. Emphasis is placed upon the spoken language of the Puerto Rican barrio. Cuban, Dominican, Chicano, lunfardo, costeno, and other variants of Spanish, pidgin "Spanglish" and the standard Spanish American idiom will be studied. Vocabulary will emphasize the particular needs of majors in Urban Studies.

URED 492 Vernacular Spanish 3 credits

A guided introduction to barrio Spanish of the Urban United States, based on a structured and descriptive analysis of the sound system. Emphasis is placed upon the spoken language of the Puerto Rican Barrio. Cuban, Dominican, Chicano, lunfardo, gosteno, and other variants of Spanish, pidgin "Spanglish" and the standard Spanish American idiom will be studied. Vocabulary will emphasize the particular needs of majors in Urban Education.

URED 493 Institutional Policy to Equal Housing Opportunity 3 credits

This course concerns itself with the problems minorities have had, and continue to have, in obtaining adequate housing. It will specifically examine the institutional barriers which are both subtle and, at the same time, extremely effective in keeping safe, sanitary and decent housing out of reach for most low and moderate income minorities.

URED 499 Independent Study 1-3 credits

As approved and to be arranged.

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- KATHLEEN CONNOLLY**, Acting Dean of The School of Nursing and Allied Health, Assistant Professor of Nursing. M.Ed., Columbia University. Appointed September, 1969. Reappointed September, 1975. Appointed Acting Dean August, 1977.
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- ELIZABETH DE GROOT**, Associate Professor of English. B.A., M.A., Ph.D., New York University. Appointed September, 1961.
- HANS DEHLINGER**, Assistant Professor of Mathematics. B.S.E., University of Michigan Engineering College; M.A., Professional Diploma, Teachers College, Columbia University. Appointed September, 1962.
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- PAMELA DELANEY**, Assistant Professor of Chemistry. B.S., Cape Town University; Ph.D., Georgetown University. Appointed September, 1977.
- RAYMOND J. DESROCHES**, Associate Professor of Music. B.A., M.A., Manhattan School of Music. Appointed September, 1970.
- MAURA A. DICKERSON**, Assistant Registrar. B.A., M.A., State University College, Cortland. Appointed August, 1971.
- WILLIAM M. DICKERSON**, Director of Student Center, B.S., SUNY, Cortland. Appointed August, 1971.
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- SHERMAN DIX**, Associate Professor of Sociology/Anthropology. B.A., Tennessee State University; M.A., Atlanta University; M.S.W., Atlanta University. Appointed September, 1975.
- GEORGE R. DIXON**, Associate Professor of Mathematics. A.B., Montclair State College; M.A., Teachers College, Columbia University. Appointed September, 1960.
- GOPAL C. DORAI**, Associate Professor of Economics and Business. B.A., Panjab University, India; M.A., Delhi University, India; Ph.D., Wayne State, Detroit, Michigan. Appointed September, 1974.
- MILDRED I. DOUGHERTY**, Assistant Professor of Reading and Language Arts. B.A., University of Alberta; M.A., The William Paterson College of New Jersey; Ed.D., Rutgers, The State University. Appointed September, 1968.
- JOHN E. DRABBLE**, Associate Professor of History. A.B., M.A., Rutgers, The State University; Ph.D. Appointed September, 1965.
- DONALD P. DUCLOS**, Director of Continuing Education, Professor of English. A.B., M.A., New York State Teachers College, Albany; Ph.D., University of Michigan at Ann Arbor. Appointed September 1961.
- WILLIAM A. DUFFEY**, Director of Facilities. Appointed May, 1974.
- LINDA J. DYE**, Assistant Professor of Physical Education. B.S., Bowling Green State University; M.S., Springfield College. Appointed September, 1967.
- ANA N. EAPEN**, Assistant Professor of Economics and Business. B.S., University of the Philippines; M.A., Ph.D., University of Michigan. Appointed September, 1973.
- ARTHUR EASON**, Director of Athletics. B.A., Montclair State College; M.A., William Paterson College. Appointed September, 1970.
- BEATRICE E. EASTMAN**, Assistant Professor of Mathematics. B.A., Vassar College; M.A., New York University; M.A. Hunter College; Ph.D., Fordham University. Appointed September, 1977.
- MELVIN A. EDELSTEIN**, Associate Professor of History. B.A., The University of Chicago; M.A., Ph.D., Princeton University. Appointed September, 1973.
- DON ALDEN EDWARDS**, Assistant Professor of English. B.A., Carroll College, Wisconsin; M.S., University of Wisconsin. Appointed September, 1956.
- JOHN L. EDWARDS**, Associate Professor of Physics—Earth Sciences. B.S., University of Oklahoma at Norman. M.A., M. Philog., Columbia University. Appointed September, 1961.
- HERBERT LEE ELLIS**, Professor of History. B.A., Duke University; M.A., Ph.D., Columbia University. Appointed 1947-48. Reappointed September, 1949.
- LEONA S. EMRICH**, Professor of Biological Sciences. B.S., Southwestern State College, Oklahoma; M.S., University of Oklahoma; Ph.D., Cornell University. Appointed September, 1960.
- KATHLEEN ENGE**, Assistant Professor of Nursing. A.M., New York University; B.S., William Paterson College; Diploma, Massachusetts General Hospital School of Nursing. Appointed September, 1976.
- WILLIAM E. ENGELS**, Associate Professor of Elementary Education—Field and Simulated Experiences. B.S., Columbia University. M.A., Teachers College, Columbia University. Appointed September, 1963.
- EVE EPSTEIN**, Assistant Professor of Communications. B.S., Syracuse University; M.A., Columbia University; M.Ed., Columbia University; Ph.D., Temple University. Appointed September, 1977.
- ANITA S. ESTE**, Counselor, Assistant Professor. B.A., Barnard College; M.A., Professional Diploma, Teachers College, Columbia University. Appointed September, 1960.
- JAMES P. ETZWILER**, Assistant Professor of Philosophy. B.A., St. Bonaventure University; M.A., University of Toronto; Ph.D., University of Toronto. Appointed January, 1977.
- MARK M. EVANGELISTA**, Associate Registrar. B.A., M.Ed., The William Paterson College of New Jersey. Appointed September, 1970.
- SANDRA EVERETT**, Instructor of Nursing. B.S., Hampton Institute. Appointed September, 1977.
- TIMOTHY W. FANNING**, Assistant to Vice President for Administration and Finance. B.A., Montclair State College. Appointed August, 1971.
- CHARLES FARAWELL**, Director of Business Services. B.S., St. Peter's College. Appointed April, 1961.
- JOAN T. FEELEY**, Associate Professor of Reading and Language Arts. B.A., College Misericordia; M.S., Hunter College; Ph.D., New York University. Appointed, September, 1971.
- RUTH KANE FERN**, Associate Professor of Secondary Education. B.S., Trenton State College; M.A., New York University; M.A., Montclair State College. Appointed September, 1958.
- CAROLINE FERRETTI**, Assistant Director of Educational Opportunity Program. B.S., State University College at Brockport; M.A., Columbia University; Ed.M., Columbia University. Appointed July, 1975.
- HAROLD H. FERSTER**, Associate Professor of Special Education. A.B., M.A., New York University. Appointed September, 1958.
- WILLIAM J. FINNERAN**, Associate Professor of Art. B.S.D., M.F.A., University of Michigan. Appointed September, 1973.
- PAUL D. FINNEY**, Assistant Professor of Music. B.S., M.S., University of Illinois at Urbana. Appointed September, 1965.

- JAMES G. FITZSIMMONS**, Associate Professor of Geography. B.A., Montclair State College. M.A., The William Paterson College of New Jersey; M.A., University of Oklahoma at Norman; M.A., Columbia University. Appointed September, 1966.
- CLIFFORD A. FLANDERS**, Associate Professor of Chemistry, B.S., Wagner College; M.A., Columbia University; Ph.D., West Virginia University. Appointed September, 1969-June, 1972. Reappointed September, 1976.
- FLORENCE R. FLASTER**, Instructor of Physical Education. B.S., M.A., Pennsylvania State University at University Park; M.S., Montclair State College. Appointed September, 1966.
- GEORGE FLECK**, Assistant Professor of Communications. B.S., Fairleigh Dickinson University; M.B.A., New York University; Certificate, New York University; Ed.D., Fairleigh Dickinson University. Appointed September, 1977.
- ANN T. FLYNN**, Associate Professor of Nursing. B.S., St. John's University; M.A., New York University; Ph.D., Union Graduate School (Antioch). Appointed September, 1976.
- RICHARD A. FOLEY**, Assistant Professor of Music. B.M., Oberlin College; M.A., Columbia University; D.M.A., University of Michigan. Appointed September, 1973.
- M. LOUISE FOKKEN**, Associate Professor of Physical Education. B.A., University of Washington at Seattle; M.A., New York University. Appointed September, 1957.
- GEORGE H. FORD**, Assistant Professor of Special Education. B.S., D.C., Teachers College; M.A., Teachers College, Columbia University. Appointed September, 1968.
- DONATO D. FORNUTO**, Professor of Music. B.A., City College of New York; M.A., Hunter College; Ed.D., Teachers College, Columbia University. Appointed September, 1967.
- IGNATIA E. FOTI**, Assistant Professor of Nursing. B.S., St. Johns University; M.A., New York University. Appointed January, 1975.
- DOUGLAS M. FOX**, Associate Professor of Political Science. B.A., Yale University; Ph.D., Columbia University. Appointed September, 1974.
- PATRICIA FRAMMIGEN**, Instructor of Nursing B.S.N., Seton Hall University. Appointed September, 1977.
- DOROTHY K. FRANCHINO**, Assistant Professor of Reading and Language Arts. B.A., M.A., The William Paterson College of New Jersey; Advanced Professional Diploma, University of Miami. Appointed September, 1966.
- ANNA D. FREUND**, Assistant Professor of Speech Pathology. B.A., The William Paterson College of New Jersey; M.A., Teachers College, Columbia University. Appointed September, 1968.
- MARIE-LOUISE FRIQUEGNON**, Associate Professor of Philosophy. B.A., Barnard College; M.A., Ph.D., New York University. Appointed September, 1969.
- JOHN FULTON**, Associate Professor of English; A.B., Central College, Pella, Iowa; M.A., Columbia University. Appointed February, 1956.
- JAMES M. GALLO**, Assistant Professor of Urban Education and Community Affairs. B.S., St. Peter's College; M.A., Montclair State College. Appointed September, 1964.
- AIDA GARCIA**, Instructor of English. B.A., Montclair State College; M.A., Drew University. Appointed September, 1975.
- DONALD A. GARCIA**, Assistant Professor of Music. B.M., Sanford University; M.M., Southern Baptist Theological Seminary; B.S., M.S., Juilliard School of Music. Appointed September, 1971.
- JORGE GENTILINI**, Associate Professor of Division of Fine and Performing Arts. B.A., National College, Argentina; Diploma in Architecture, Buenos Aires; D. Arch., Milan Polytechnic, Italy. Appointed September, 1977.
- GARY GERARDI**, Associate Professor of Chemistry. B.S., Manhattan College; M.S., Ph.D., St. John's University. Appointed September, 1977.
- JERRY D. GERLACH**, Assistant Professor of Geography. B.A., M.A., University of Nebraska; M.A., University of Wisconsin; Ph.D., University of Oklahoma. Appointed September, 1974.
- TIMOTHY R. GERNE**, Professor of Elementary Education—Field and Simulated Experiences. A.B., St. Peter's College; M.A., Seton Hall University; Ed.D., New York University. Appointed September, 1966.
- ADAM G. GEYER**, Associate Professor of Secondary Education. B.A., M.A., Montclair State College; Ph.D., Fordham University. Appointed September, 1968.
- BETSY GLANTZ**, Assistant Registrar I. B.S., State University College at Geneseo, New York. Appointed July, 1973.
- FLORENCE GOLDBERG**, Instructor of Elementary Education—Field and Simulated Experiences. B.A., Brooklyn College; M.A., Teachers College, Columbia University. Appointed September, 1968.
- ROBERT GOLDBERG**, Professor and Director of Library Services. B.A., St. John's College; M.A., Georgetown University; Ph.D., Rutgers University. Appointed August, 1975.
- EDWARD R. GOLDSTEIN**, Instructor of History. B.A., Western Reserve University; M.A., The University of Michigan; Ph.D., Case Western Reserve University. Appointed September, 1973.
- ELEANOR M. GOLDSTEIN**, Associate Professor of Mathematics. B.S., City College of the City of New York; M.S., Case Institute of Technology, Ohio; Ph.D., City University of New York. Appointed September, 1969.
- JOHN P. GOWER**, Professor of Educational Administration. B.A., University of Maine; M.Ed., Ed.D., Columbia University. Appointed September, 1967.
- VIRGIE E. GRANGER**, Associate Professor of English. B.A., University of Northern Iowa; N.A., California State University at Los Angeles. Appointed September, 1966.
- BARBARA M. GRANT**, Professor of Reading and Language Arts. B.S., The William Paterson College of New Jersey; M.Ed., University of Virginia; Ed.D., Teachers College, Columbia University. Appointed September, 1963.
- NEIL G. GRANT**, Associate Professor of Biology. B.S., University of Illinois-Urbana; Ph.D., University of North Carolina. Appointed September, 1977.
- WILL B. GRANT**, Associate Professor of Theatre. B.S., Southern Illinois University; M.A., University of Washington; Ph.D., Cornell University. Appointed September, 1970.
- JUDITH GREEN**, Associate Professor of Psychology and Biology. A.B., Bard College; Ph.D., University of Rochester School of Medicine. Appointed September, 1977.
- GEORGE GREGORIOU**, Assistant Professor of Political Science. B.A., Ph.D., New York University. Appointed September, 1968.
- DAINE GREY**, Assistant Professor of Psychology. B.S., Delaware State College; M.S., Princeton University; Ph.D., Princeton University. Appointed September, 1975.
- VERNON E. GRIER**, Assistant Professor of Urban Education and Community Affairs, Associate Dean of Student Services. A.A., Fresno Community College; B.A., Sacramento State College; M.S.W., Hunter College. Appointed October, 1974.
- CAROL S. GRUBER**, Associate Professor of History. B.A., Brandeis University; M.A., Columbia University; Ph.D., Columbia University. Appointed January, 1977.
- MARIETTA O. GRUENERT**, Professor of Special Education. B.S., Lebanon Valley College; M.A., Ed.D., Teachers College, Columbia University. Appointed September, 1955.
- BRUCE A. GULBRANSON**, Associate Professor of Theatre. B.S., New Bedford Institute of Textiles and Technology at Charlottesville; M.A., University of Virginia at Charlottesville; Ed.D., Teachers College, Columbia University. Appointed September, 1966.
- HARRY T. GUMAER**, Professor of Secondary Education, acting as Director of Student Teaching. A.B., M.A., New York State College for Teachers, Albany; Ed.D., Teachers College, Columbia University. Appointed September, 1969.
- NANCY GUPTILL**, Assistant Professor of Music. B.M., M.M., University of Wisconsin. Appointed September, 1969.
- MARTIN E. HAHN**, Assistant Professor of Biological Sciences. B.A., Ohio State University; M.A., Ph.D., Miami University. Appointed September, 1973.
- MICHAEL HAILPARN**, Professor of Philosophy. B.A., Fresno State College; M.A., Ed.D., Teachers College, Columbia University. Appointed September, 1965.
- HELLA M. HAKEREM**, Assistant Professor of Nursing. B.S., Hunter College; M.A., Teachers College, Columbia University. Appointed September, 1968.
- ROBERT L. HALL**, Associate Professor of Chemistry. B.A., Swarthmore College; Ph.D., University of Chicago. Appointed September, 1973.
- SALLY N. HAND**, Assistant Professor of

- English. B.A., The University of Georgia at Athens; M.A., Florida State University at Tallahassee; Ph.D., New York University. Appointed September, 1964.
- SHARON R. HANKS**, Assistant Professor of Biological Sciences. B.A., Scripps College, Claremont, California; M.S., Ph.D., Rutgers, The State University. Appointed September, 1974.
- BRENDA HARRIS**, Assistant Registrar II. B.A., Douglass College. Appointed September, 1977.
- CATHERINE R. HARTMAN**, Associate Professor of Secondary Education. B.S., Appalachian State College, North Carolina; M.A., Professional Diploma, Teachers College, Columbia University. Appointed September, 1964.
- HAROLD R. HARTMAN**, Professor of Educational Administration. B.S., Appalachian State College, North Carolina; M.A., Professional Diploma, Teachers College, Columbia University. Appointed February, 1967.
- JOAN R. HARTMAN**, Assistant Professor of English. B.A., Fairleigh Dickinson University; M.A., New York University. Appointed September, 1965.
- JOHN HASKELL**, Assistant Professor of Speech Pathology. B.A., Brandeis University; M.A., Columbia University; Ed.D., Columbia University. Appointed October, 1975.
- JAMES D. HAUSER**, Assistant Professor of English. B.A., M.A., Ph.D., University of Pennsylvania. Appointed September, 1970.
- THOMAS B. HAVER**, Associate Professor of Psychology. B.S., Seton Hall University; M.A., New York University. Appointed February, 1967.
- AUDREY F. HAVRILIAK**, Instructor of Reading and Language Arts. B.S., M.A., The William Paterson College of New Jersey. Appointed September, 1963.
- DAVID HAXTON**, Instructor of Art. B.A., University of South Florida; M.F.A., University of Michigan. Appointed September, 1974.
- LEOLA G. HAYES**, Associate Professor of Special Education. B.S., Winston Salem Teachers College; M.A., New York University; M.A., City College of New York; Ph.D., New York University. Appointed September, 1964.
- DOROTHY R. HEIER**, Associate Professor of Music. B.S.M., Nyack Missionary College; M.M., Manhattan School of Music; Ed.D., Teachers College, Columbia University. Appointed September, 1965.
- MARC S. HELLER**, Assistant Professor of Special Education. B.A., State University of New York at Binghamton; M.S., City College of New York; Ph.D., Teachers College, Columbia University. Appointed September, 1974.
- NOBLE HIEBERT**, Assistant Professor of Educational Administration. Ph.B., Sterling College; M.S., Kansas State College; Ed.D., Columbia University. Appointed September, 1977.
- JAMES E. HILL**, Associate Professor of Geography. A.B., M.Sc., Ph.D., University of Tennessee. Appointed September, 1974.
- JOSEPH VINSON HILL**, Instructor of Music, B.A., Dartmouth College. Appointed January, 1977.
- WATHINA S. HILL**, Professor of Speech Pathology. B.S., The William Paterson College of New Jersey; M.A., Ed.D., Teachers College, Columbia University. Appointed February, 1962.
- LEO HILTON**, Professor of Urban Education and Community Affairs. B.S., St. John's University; M.A., Ed.D., Teachers College, Columbia University. Appointed September, 1965.
- JAMES W. HOBAN**, Assistant Professor of English. B.S., M.A., J.D., Northwestern University. Appointed September, 1965.
- DOROTHY C. HOLAHAN**, Assistant Professor of Nursing. B.S., Jersey City State College; M.A., New York University. Appointed September, 1970.
- DAVID P. HORTON**, Instructor of Art. B.F.A., M.A., Ohio State University. Appointed September, 1973.
- JAMES HOUSTON**, Professor of Psychology. B.S., The William Paterson College of New Jersey; M.A., Ed.D., Teachers College, Columbia University. Appointed September, 1952.
- CHING YEH HU**, Associate Professor of Biological Sciences. B.S., Taiwan Agriculture College; M.S., Ph.D., West Virginia University. Appointed September, 1969.
- JOHN J. HUBER**, Assistant Professor of Elementary Education—Field and Simulated Experiences. B.A., Montclair State College; M.A., Seton Hall University. Appointed December, 1961.
- PATRICIA A. HUBER**, Assistant Professor of Physical Education. B.S., M.Ed., North Texas State University. Appointed September, 1968.
- MARIA E. HUBERT-FRISCA**, Assistant Director of Admissions 2. B.A., Rutgers University; M.A., Seton Hall University. Appointed January, 1974.
- ANN HUDIS**, Associate Professor of Health. B.S., Sarah Lawrence College; M.P.H., Columbia University School of Public Health; M.Ed., Teachers College, Columbia University; Ed.D., Teachers College, Columbia University. Appointed January, 1977.
- EDWIN HUDSON**, Professor of Psychology. B.A., M.A., Temple University; Ph.D., Columbia University. Appointed September, 1970.
- JOHN A. HUGHES**, Assistant Professor of Biology. B.A., Syracuse University; Ph.D., The Johns Hopkins University. Appointed September, 1977.
- LENORE B. HUMMEL**, Assistant Professor of Secondary Education. B.S., Queens College; M.A., Teachers College, Columbia University. Appointed September, 1960.
- EDWIN C. HUTTER**, Professor of Mathematics and Natural Sciences (Environmental Studies Program); B.S., M.A., Ph.D., University of Virginia. Appointed February, 1974.
- GARY L. HUTTON**, Director of Housing Services. B.S., William Paterson College. Appointed August, 1974.
- STELLA E. HYMAN**, Assistant Professor of Mathematics. B.S., Syracuse University; M.S., New York University. Appointed September, 1968.
- BERNARD F. IATAURO**, Instructor of Economics and Business. B.S., M.B.A., St. John's University. Appointed September, 1973.
- RITA J. IMMERMAN**, Assistant Professor of Political Science. B.A., Hunter College; M.A., Hunter College; Ph.D., City University of New York. Appointed September, 1977.
- ALLEN ISAACSON**, Associate Professor of Biological Sciences. B.S., City College of New York; M.A., Harvard University; Ph.D., New York University. Appointed September, 1969.
- RICHARD J. JAARSMA**, Professor of English. A.B., Hope College; M.A., Ph.D., Rutgers, The State University. Appointed September, 1969.
- J. THOMAS JABLE**, Associate Professor of Physical Education. B.S., University of Dayton; M.A., M.Ed. Pennsylvania State University; Ph.D., Pennsylvania State University. Appointed January, 1976.
- HERBERT G. JACKSON, JR.**, Assistant Professor of Communication. B.A., Tufts University. Appointed September, 1973.
- STANLEY J. JAKUBIK**, Assistant Registrar I. B.A., M.A., Montclair State College. Appointed November, 1970.
- AMY G. JOB**, Librarian 2. B.A., Montclair State College; M.L.S., Rutgers, The State University. Appointed September, 1968.
- KENNETH A. JOB**, Professor of Elementary Education—Teacher Education and Field and Simulated Experiences. B.S., Jersey City State College; M.A., Ed.D., New York University. Appointed 1960-62. Reappointed September, 1964.
- HARRIETTE JOHNSON**, Assistant Professor of School Personnel Services and Social Work. B.A., M.S.W., Smith College; Ph.D., Rutgers University. Appointed September, 1975.
- LESLIE A. JONES**, Assistant Professor of Black Studies. B.A., M.A., St. John's University. Appointed September, 1970.
- THAD J. JONES**, Instructor of Music. D.H.L., William Paterson College. Appointed September, 1972.
- JOHN S. JORDAN**, Assistant Professor of Black Studies. B.A., University of California; Dip. Ed., University of East Africa; Ed.D., Columbia University. Appointed September, 1974.
- ANGELO JUFFRAS**, Professor of Philosophy. B.A., Hunter College; Ph.D., Columbia University. Appointed September, 1970.
- JOANNE JUNCKER**, Assistant Professor of Early Childhood. B.A., M.A., George Washington University; Ph.D., New York University. Appointed September, 1977.
- CHARLES JURY**, Director of Computer Services. B.S., Fairleigh Dickinson University. Appointed January, 1971.
- GARY KAHN**, Assistant Professor of Economics and Business. B.S., City University of New York (Hunter College); M.B.A., Long Island University. Appointed January, 1974.
- CHARITY N. KAMOCHÉ**, Librarian 3-12 months. B.A., State University of New York at Buffalo; M.S.L., Syracuse University, School of Library and Informa-

- tion Studies. Appointed May, 1977.
- MEYER M. KAPLAN**, Associate Professor of Mathematics. B.A., Hunter College; M.A., Adelphi College; Ph.D., Stevens Institute of Technology. Appointed September, 1969.
- PATRICK J. KEARNEY**, Instructor of Public Safety Administration. B.A., University of Massachusetts; M.A.T., American International College. Appointed September, 1974.
- ERVIN KEDAR**, Associate Professor of Geography. B.A., M.A., Ph.D., Hebrew University of Jerusalem. Appointed September, 1972.
- GARY D. KELLER**, Associate Professor of Urban Education and Community Affairs (Bilingual). B.A., University of the Americas; Ph.D., Columbia University. Appointed October, 1976.
- TERRENCE P. KENEFICK**, Assistant Professor of Elementary Education—Field and Simulated Experiences. B.A., B.S., M.A., Ohio State University; M.S., Syracuse University. Appointed September, 1963.
- MILTON S. KESSLER**, Associate Professor of Secondary Education. B.A., M.A., Ph.D., New York University. Appointed September, 1968.
- GARY KIRKPATRICK**, Assistant Professor of Music. B.M., Eastman School of Music; Artist's Diploma, Academy for Music and Dramatic Arts, Vienna. Appointed September, 1973.
- SUZANNE F. KISTLER**, Instructor of English. B.A., Swarthmore College; M.A., C.W. Post College; Ph.D., State University of New York at Stony Brook. Appointed September, 1973.
- DEBORAH KLEESE**, Assistant Professor of Psychology. B.S., Juniata College; Ph.D., State University of New York. Appointed September, 1975.
- RUTH A. KLEIN**, Professor of School Personnel Services and Social Work and of Urban Education and Community Affairs. B.S., Jersey City State College; M.A., New York University; Ed.D., Rutgers University. Appointed March, 1955.
- SOPHIE KLEPACKI**, Assistant Registrar. B.S., Seton Hall University. Appointed July, 1969.
- ROBERT J. KLOSS**, Professor of English. B.S., State College, Pennsylvania; M.A., Ph.D., Columbia University. Appointed September, 1969.
- YOUNG HE KOH**, Librarian 3. B.A., Ewha Women's University. M.S.L.S., The University of North Carolina. Appointed September, 1971.
- ADRIENNE KORMAN**, Librarian 3-12 months. B.A., Douglass College; M.L.S., Rutgers University, Graduate School of Library Service. Appointed February, 1977.
- RONALD S. KRATE**, Associate Professor of Psychology. B.A., City College of New York; M.A., Teachers College, Columbia University. Appointed September, 1967.
- JEFFREY J. KRESKY**, Assistant Professor of Music. B.A., Columbia College; M.F.A., Ph.D., Princeton University. Appointed September, 1973.
- MARTIN KRIVIN**, Professor of Music. B.S., City College of New York; M.A., Teachers College, Columbia University; Ph.D., University of Iowa. Appointed September, 1960.
- ANTHONY M. KRIVITSKI**, Instructor of Theatre. B.S., Kings College; M.F.A., Temple University. Appointed September, 1977.
- ROBERT P. KROECKEL**, Director of Institutional Research and Planning. Assistant Professor of Mathematics. A.B., Drew University; M.Ed., Rutgers, The State University. Appointed September, 1965.
- SUSAN KUYEKE**, Instructor of Special Education. B.S., State University College of Oneonta; M.Ed., University of Illinois. Appointed July, 1974.
- HIDONG K. KWON**, Librarian 1. B.A., Yonsei University, Seoul, Korea; M.L.S., Columbia University. Appointed September, 1966.
- STANLEY KYRIAKIDES**, Associate Professor of Political Science. A.B., Brooklyn College; M.B.A., Ph.D., New York University. Appointed September, 1965.
- SUNG Y LA**, Associate Professor of Physics-Earth Sciences. B.S., M.S., West Virginia Wesleyan College; Ph.D., University of Connecticut. Appointed September, 1968.
- MARYLEE M. LAMENT**, Assistant Professor of Elementary Education—Field and Simulated Experiences. B.S., M.A., Ohio State University. Professional Diploma (M.Ed.), Ed.D., Teachers College, Columbia University. Appointed September, 1977.
- SUSAN LANG**, Assistant Professor of Nursing. B.S., Michigan State University. Appointed September, 1977.
- ROBERT L. LATHEROW**, Professor of Music. B.S., Western Illinois University; M.M., Jordan College of Music, Butler University, Indianapolis; Ed.D., Teachers College, Columbia University. Appointed September, 1964.
- SUSAN A. LAUBACH**, Associate Professor of Physical Education. B.S., Douglass College; M.Ed., Rutgers, The State University. Appointed September, 1966.
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- ALAN H. LAZARUS**, Instructor of Art. A.A.S., B.F.A., M.F.A., Rochester Institute of Technology. Appointed September, 1974.
- CHARLES W. LEE**, Professor of Environmental Studies. B.S., M.S., University of Chicago; Ph.D., Texas A & M University. Appointed September, 1977.
- GERARD LEE**, Director of Educational Opportunity Fund Program. B.A., Shaw University; M.S., Newark State College. Appointed August, 1977.
- HAROLD LEIB**, Assistant Professor of Business and Economics. B.B.A., Pace University; B.S., Fairleigh Dickinson University; J.D., Seton Hall University School of Law. Appointed September, 1977.
- KATHLEEN F. LEIGHTON**, Assistant Professor of Special Education. B.S., State University of New York at Geneseo; M.S., City College of New York. Appointed September, 1964.
- HOWARD B. LEIGHTON**, Professor of Art. B.S., University of Cincinnati; B.S., Miami University, Ohio; M.A., Ed.D., Teachers College, Columbia University. Appointed September, 1962.
- ADELE L. LENROW**, Associate Professor of Communication. B.A., Hunter College; M.A., Ed.D., Teachers College, Columbia University. Appointed September, 1967.
- ROBERT LEPPERT**, Professor of Theatre. B.A., Drew University; M.A., Columbia University; Ed.D., Columbia University. Appointed September, 1956.
- CHO KIN LEUNG**, Associate Professor of Economics and Business. B.A., Hwa Kiu University, Hong Kong; M.A., New York University; Ph.D., New York University. Appointed September, 1974.
- GLORIA A. LEVENTHAL**, Assistant Professor of Psychology. A.B., Hunter College; M.A., Ph.D., Yeshiva University. Appointed September, 1972.
- BERNARD S. LEVINE**, Associate Professor of Mathematics. A.B., Drew University; A.M., The State College of Washington at Pullman. Appointed September, 1962.
- DONALD M. LEVINE**, Professor of Biological Sciences. B.A., University of Vermont; M.S., University of Rhode Island; Ph.D., University of Pennsylvania. Appointed September, 1962.
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- DUN JEN LI**, Professor of History. B.A., National Chekiang University; M.S., Ph.D., University of Wisconsin. Appointed September, 1958.
- CLIFTON W. LIDDICOAT**, Assistant Professor of Economics and Business. B.S., East Stroudsburg State College; M.A., Temple University. Appointed September, 1966.
- STUART G. LISBE**, Professor of Health. B.S., M.S., City College of New York; Ed.D., State University of New York at Buffalo. Appointed September, 1968.
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FOOTNOTES

- ¹ Business, Economics, and Accounting is no longer a part of The College of Human Services, but has become The School of Management as of October 1977.
- ² Tuition, fees and refund policy are subject to change at any time in accordance with policies established by the New Jersey State Board of Higher Education.
- ³ Major courses may *not* be used in partial fulfillment of the Liberal Studies Requirement.
- ⁴ Art majors may *not* use this course as a partial fulfillment of the Liberal Studies Requirement.
- ⁵ Very important.
- ⁶ This course may be taken in partial fulfillment of the Liberal Studies Requirement.
- ⁷ The student will audition for entrance into the program and, at the discretion of the Audition Committee, may be required to take traditional instrumental study for one, or no more than two years, before studying with a jazz specialist.
- ⁸ Applied Music Major (Jazz; study will be offered on the following instruments: trumpet, trombone, saxophone, guitar, piano, string bass, percussion, and voice.)
- ⁹ The program, however, certifies the student to teach vocal/general music and instrumental music, K-12.
- ¹⁰ Required of all except vocal majors.
- ¹¹ This course may be used in partial fulfillment of the Liberal Studies Requirement. Students must choose from ECON 201 (Macroeconomic Principles), ECON 202 (Microeconomic Principles), or ECON 230 (Economics of the Environment).
- ¹² This course may be used in partial fulfillment of the Liberal Studies Requirement. Students must choose from BLST 110 (Afro-American History to 1865), BLST 111 (Afro-American History Since 1865), BLST 315 (Afro-American Backgrounds for Teachers), or BLST 300 (The Black Family).
- ¹³ See page 18, Pre-Professional Studies.
- ¹⁴ Certification requirements may also be met by substituting Reading Improvement and Practicum (6 credits) for Advanced Reading Techniques.
- ¹⁵ TED 310 (Educational Psychology: Adaptations and Interventions in the Classroom) may be substituted for PSY 210 (Developmental Psychology).
- ¹⁶ SED 383 (Teaching Reading in Grades 5-12) may be substituted for RLA 330 (Reading Strategies for the Content Areas).
- ¹⁷ This course may be used in partial fulfillment of the Directed Elective Requirement.
- ¹⁸ Athletic Training, formerly a concentration, is now offered as a minor with the same requirements as those listed under the concentration.
- ¹⁹ Students must demonstrate knowledge of basic college algebra or take MATH 120 or MATH 155 before being admitted to HSC 440.
- ²⁰ See Department Chairperson for course description.
- ²¹ College Physics I (PHYS 255) may be substituted by advisement.
- ²² College Physics II (PHYS 256) may be substituted by advisement.
- ²³ Not necessary if Freshman Placement Test indicates adequate skills in algebra.
- ²⁴ Preliminary Field Experience; a one-day per week experience in a special education classroom in a participating school; taken concurrently with SPED 302; the field experience is administered by the instructor of SPED 302 and the Office of Field Laboratory Experiences. However, assignments may also be required in conjunction with SPED 301 and SPED 304.
- ²⁵ TED 310, Educational Psychology: Adaptations and Interventions in the Classroom may be substituted for PSY 210, Developmental Psychology.

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