

WILLIAM PATERSON
COLLEGE
UNDERGRADUATE
CATALOG
1982-83



William Paterson College does not discriminate on the basis of race, color, age, sex, religion, creed, national origin or handicap. College policies and practices are consistent with federal and state laws pertaining to equal opportunity in admission and education policies, scholarship, loan, athletic and other school-administered programs.

Specifically, William Paterson College complies with Title IX of the Education Amendments of 1972, Section 504 of the Vocational Rehabilitation Act of 1973, and Title VI of the Civil Rights Act of 1964, and their respective implementing regulations.

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

For additional information, catalogs and applications, write or call:

**Office of Admissions
William Paterson College
Wayne, New Jersey 07470
(201) 595-2125**

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Academic Calendar 1982-83

Fall Semester

September 1	Wednesday	First day of classes
September 2	Thursday	Last day for 100% refund for withdrawal from fall semester
September 6	Monday	Labor Day, College closed
September 7	Tuesday	First quarter student teaching begins
September 8	Wednesday	Wednesday classes cancelled and replaced by Monday classes
October 8	Friday	Last day for refund for withdrawal from fall semester
October 8	Friday	Last day to drop a course
October 27	Wednesday	First quarter student teaching ends
October 28	Thursday	Second quarter student teaching begins
November 25	Thursday	Thanksgiving Day, College closed
November 26	Friday	Classes cancelled, College open
November 27	Saturday	Classes cancelled
December 18-24	Inclusive	Examination period and/or continued class instruction
December 24	Friday	Fall semester ends
December 24	Friday	Second quarter student teaching ends
December 24	Friday	Christmas day celebrated, College open, classes in session
December 25	Saturday	Winter vacation begins. Christmas day, College closed
December 31	Friday	New Year's Day celebrated, College closed
January 1	Saturday	New Year's Day, College closed
January 14	Friday	Martin Luther King's birthday celebrated, College closed
January 15	Saturday	Martin Luther King's birthday, College closed
January 16	Sunday	Winter vacation ends

Spring Semester

January 17	Monday	First day of classes
January 17	Monday	Third quarter student teaching begins
January 18	Tuesday	Last day for 100% refund for withdrawal from spring semester
February 11	Friday	Lincoln's birthday, College open, classes in session
February 12	Saturday	Lincoln's birthday, College open, classes in session
February 21	Monday	Washington's birthday, College closed
February 23	Wednesday	Last day for refund for withdrawal from spring semester
February 23	Wednesday	Last day to drop a course
March 11	Friday	Third quarter student teaching ends
March 14	Monday	Fourth quarter student teaching begins
March 27- April 3	Inclusive	Spring vacation, classes cancelled, College open
May 10-16	Inclusive	Examination period and/or continued class instruction
May 16	Monday	Fourth quarter student teaching ends
May 16	Monday	Spring semester ends
May 19	Thursday	Commencement

Pre-session 1983

May 23	Monday	Pre-session registration
May 24	Tuesday	First day of classes
May 30	Monday	Memorial Day, College closed
June 23	Thursday	Pre-session ends

Summer Session 1983

June 27	Monday	Summer session registration
June 28	Tuesday	First day of classes
July 4	Monday	Independence Day, College closed
August 9	Tuesday	Summer session ends

William Paterson College

Since its founding in 1855, William Paterson College has grown to a multi-purpose institution of higher education. Supported by the citizens of New Jersey, WPC is one of eight colleges in the state college system. Operating under the policy direction of the State Board of Higher Education, and governed by a local board of trustees, the College is fully accredited by the Middle States Association of Colleges and Secondary Schools.

The College moved from its original location in Paterson to the Wayne campus in 1951. Degree offerings other than those leading to a teaching career were added in 1966. Today 35 undergraduate and 14 graduate degree programs are offered in the College's seven schools: The Arts and Communication, Education and Community Service, Health Professions and Nursing, Humanities, Management, Science and Social Science. Included in the curriculum are several innovative and challenging undergraduate honors programs in biopsychology, humanities, international management and policy analysis.

Campus Facilities

The major buildings which house and support the programs offered by the College's seven schools include the following:

The Sarah Byrd Askew Library. Open seven days a week when classes are in session. Resources include a comprehensive collection of some 250,000 volumes, over 3,000 periodicals, a large micro-print collection of dissertations, microfiche and a complete file of ERIC (Educational Research Information Center). The audio-visual department provides records, cassettes, filmstrips and films, in addition to the appropriate hardware.

William A. Caldwell Plaza. An open forum located at the center of the campus. Joins Ben Shahn Center for the Visual Arts, Science Hall, the Student Center and the new residence hall complex.

Center for Academic Support. Located between the Coach House and Raubinger Hall. Provides tutoring and workshops for individuals seeking assistance in course work and basic skills.

The Coach House. Computer facilities are located here. The College is a member of the Educational Information Services statewide computer network which supports multilanguage, high-speed service for administrative and academic users.

Heritage Hall. Air-conditioned and complete with furnishings and appliances, Heritage Hall and Pioneer Hall, provide apartment-style living for 530 students.

Hobart Hall. Located on Pompton Road, across from the main campus and accessible by a footbridge. Houses the communication department; WPSC, the campus radio station; WPC-TV, the television center; a film-making laboratory; the speech pathology department; and a child care center.

Garret Hobart Manor. A national historic site, formerly the home of the Garret Hobart family. Hobart was the 24th vice-president of the United States. Contains educational services offices, including the dean, registrar and financial aid.

Hunziker Hall. The reading and language arts department, the office of field laboratory experiences, a "little theater," scene design and costume shops, the theater box office, theatre department offices and classrooms are housed here.

Hunziker Wing. Contains the department of nursing and health science, the office of the dean of the School of Health Professions and Nursing, and a learning resource center.

Benjamin Matelson Hall. Houses the offices of the dean of student services, the dean of the School of Humanities, and offices for the school's component departments: African and Afro-American studies, English, languages and cultures, history and philosophy. Also, the department of urban education, the bilingual education program, the women's center and the security office.

Morrison Hall. Includes the office of the president of the College and other central administration offices: academic affairs, administration and finance, affirmative action, the Alumni Association office, the business office, college relations, personnel and purchasing.

Pioneer Hall. A student residential hall. Described above under Heritage Hall.

Fredrick M. Raubinger Hall. Contains offices for the dean of the School of Education and Community Service and the following departments: urban education, special education, elementary education and secondary education. Also, the peer advisement and information center, classrooms and the following offices: Academic advisement, admissions, career counseling and placement, continuing education, counseling services and veterans' affairs.

Residence Hall Complex. A four-winged dormitory facility, which opened in September, 1982; accommodates 1033 students.

Science Hall. Houses the School of Science and the School of Social Science. Offices for the deans and the following programs are located here: biology, chemistry, mathematics, physics/environmental studies, psychology, political science, sociology, anthropology and geography. Laboratories, research facilities and two large lecture halls, containing modern audio-visual instructional equipment, complete the complex.

The Ben Shahn Center for the Visual Arts. Features a central, two-story glass-walled and domed courtyard. Art galleries, studios, classrooms, the office of the dean of the School of the Arts and Communication and art department offices make up the complex.

Marion E. Shea Center for the Performing Arts. Features a 900-seat theatre. Band, orchestra and choral practice rooms, classrooms and the offices of the music department complete the facility.

The Student Center. A focal point for campus activities. Includes dining room, snack bar and pub. Also, game rooms, lounges, the college bookstore, a print shop, a full-service bank and a ballroom. The college newspaper, the **Beacon**, is located here as are the offices of various student organizations.

Wayne Hall. Provides additional food service facilities and meeting rooms.

Kenneth B. White Hall. Contains offices for the dean of the School of Management and the school's component departments: accounting, economics and finance, criminal justice administration, computer science, marketing, and management. Also, school personnel services and educational administration, the director of athletics, the educational opportunity fund program and the student health center.

Wightman Field. A light-equipped athletic complex with soccer, baseball, football and softball fields. Eight tennis courts, a permatrack and locker facilities are among the additional athletic facilities.

Clair S. Wightman Memorial Gymnasium. Two gyms, a swimming pool, training rooms, a weight room and classrooms are included in the physical education building. The department of movement sciences and leisure studies is also located here.

Admission

William Paterson College invites applications from all qualified students. As a matter of policy, the College does not discriminate on the basis of sex, race, color, national origin, religion, age, or handicap in its admissions policies, educational programs, scholarship and loan programs, athletics, activities or employment policies.

General Admissions Requirements

To be admitted to William Paterson College as an undergraduate student an applicant should: 1) be a graduate of an approved high school, or 2) hold a high school equivalency certificate, and 3) have taken the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the test battery of the American College Testing Program (ACT). Achievement tests are not required. Students are admitted in September and January of each year.

Admission requirements and procedures vary slightly for four groups of students: 1) those entering the freshman class as full-time students, 2) those entering the freshman class as part-time students, 3) those entering as transfer students with advanced undergraduate credits, and 4) those entering as non-degree program students.

Application Procedure Students seeking undergraduate admission, whether full-time or part-time, must submit a completed application form, which may be obtained from the Director of Admissions, William Paterson College, Wayne, New Jersey 07470. The completed application must be accompanied by a \$10.00 fee (check or money order) made payable to William Paterson College. This fee is non-refundable and will not be applied toward any other fees or charges.

Because application deadlines vary from year to year, a current admission calendar is sent with each application. Generally, freshmen and transfer students should file applications before May 1 for fall admission and November 1 for spring admission.

Required Academic Preparation The applicant must request that his secondary school official send 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
college preparatory math	2 units
social studies	2 units
laboratory science	1 unit
additional college preparatory subjects	5 units
electives	2 units

In exceptional cases, the Committee on Admissions may waive certain unit requirements when the quality of the applicant's overall record shows promise of achievement:

Prospective students who have a New Jersey equivalent high school diploma may present diploma in lieu of these requirements.

Students planning to major in mathematics or science are expected to have taken 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.

Entrance Examination All applicants for admission to full-time study must take the Scholastic Aptitude Test (CEE: SAT) by January of the senior year or earlier.

In applying for the test, applicants should indicate that the results are to be sent to William Paterson College, Code 2518. Application forms may be secured from the high school guidance office.

Prospective students who have been out of high school for more than five years have the opportunity to seek admission as a matriculated student without taking the Scholastic Aptitude Test. Decisions for such admissions are made using other available criteria.

Notice of Decision Four factors are considered in the evaluation of applications: high school record, Scholastic Aptitude Test results, participation in extracurricular activities and a recommendation from a guidance counselor or teacher. All announcements on admission decisions are made on a rolling basis before April 15. Decisions are not normally made until all parts of the application are on file in the Admissions Office.

An offer of admission is conditional upon satisfactory completion of high school and submission of the health form which is included in the admissions packet. To accept an offer of admission, the applicant must pay the required acceptance deposit.

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

Scholarships A limited number of competitive academic scholarships are made available to incoming freshmen through the generosity of alumni, friends and corporations. To be eligible for a scholarship, a candidate must fulfill the entrance requirements of the College. Scholarships are awarded by the Scholarship Committee based on scholastic standing and character. Financial need is not a consideration.

Transfer Admission With Advanced Standing Students who have earned credits at other colleges may apply for admission with advanced standing, for full- or part-time study, by following the procedures above with the following changes:

1. File an application for admission and all other required materials no later than May 1 for fall admission or November 1 for spring admission.
2. Have official transcripts of all courses taken at schools previously attended forwarded to the Director of Admissions. Transcripts should be forwarded as soon as possible after filing the application.

Credits earned at institutions fully accredited by regional accrediting associations are generally acceptable, provided such credits are appropriate to the student's program at William Paterson 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 examinations. Only courses completed at William Paterson College are included in calculating a student's cumulative grade point average.

Credit is granted for courses taken at another college while the student is enrolled at 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.

Limitations on Transfer Credits All credits eligible for transfer for advanced standing are subject to the following limitations:

1. No more than 70 credits may be transferred from a two-year college.
2. The last 30 credits required for graduation must be earned at WPC; 24 of these must be earned on the main campus.
3. No more than 15 transfer credits required for a major will be accepted.
4. Credits earned 10 years prior to the date of admission are accepted only at the discretion of the College, regardless of achievement.

Out of State Students The same admissions requirements apply to out of state applicants as apply to New Jersey residents. Out of state students are encouraged to apply for admission and invited to visit the campus. There are several motels near the College for those who wish to spend some time in the area and/or visit New York City.

Special Admission

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

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 the achievement demonstrated.

Second Baccalaureate Degree Applicants for a second baccalaureate degree must have an earned baccalaureate degree from an accredited institution, and a grade point average of at least 2.00. Second degree candidates are accepted on a space available basis, as determined by the appropriate department.

Students accepted into this program register as undergraduates and are subject to all regulations affecting undergraduates.

The candidate must fulfill all requirements of the degree major and complete a minimum of 30 semester hours in residence.

Early Admission The William Paterson College Early Admissions Program is open to highly motivated high school students of exceptional academic ability.

Student applicants who have completed the junior year of high school may apply for early admission provided they meet the following criteria: combined SAT scores of 1000 or higher, or the equivalent PSAT scores, and /or rank in the top ten percent of their high school class, and/or exhibit exceptional talent in a special area; receive the endorsement of a teacher or counselor, and submit a written essay describing their reasons for seeking early admission.

The Saturday Program for High School Seniors William Paterson College offers its facilities to enrich the academic development of gifted and talented high school students in the North Jersey area. Outstanding high school juniors and seniors may apply to take regular college courses offered on Saturdays during the school year. Students attend regular college courses and earn credits that are applied to their college records.

A student can make application for this special program by calling or visiting the Admissions Office. Acceptance is based on SAT or PSAT scores, rank in class, a letter of recommendation from a teacher or guidance counselor, and a personal interview with the Director of Admissions. Successful applicants may also enroll for courses during the College's summer sessions.

International Students

William Paterson College, while having a primary obligation to serve New Jersey residents, welcomes applications from citizens of other countries. Residents of countries other than the United States or international students attending other schools in the United States on a F-1 visa are required to apply as international students. A special application is required for such applicants and may be obtained by writing or calling:

International Admissions Officer
Admissions Office
William Paterson College
Wayne, N.J. 07470 USA
(201) 595-2125

Proficiency in the English language is required of all applicants. Proficiency is measured by either the TOEFL (Test of English as a Foreign Language) or the SAT (Scholastic Aptitude Test) for people who speak English as their native language. All students, except those who are transferring from an English-speaking college or university with at least twenty-four (24) transferable semester credits, are required to take the appropriate test.

In addition, freshmen, i.e. students who have never gone to a college or university, must have a U.S. high school diploma, or the equivalent, from a foreign country, and all applicants must have demonstrated average or above average achievement in their past educational pursuits. An evaluation of all foreign credentials is required. Applications for the evaluation service utilized by William Paterson College are sent with the application for admission to the College.

Financial assistance is not available to non-U.S. residents. In view of this, international student applicants are required to provide evidence of their source of financial support for at least the first 12-month period of stay in the United States.

After acceptance to the College and payment of the acceptance deposit, the student is sent an I-20 form, which then must be presented to Immigration officials in order to obtain a student visa.

Campus Visits

Prospective students and their parents are welcome on campus. Tours, conducted by WPC student guides, are scheduled on specific Friday afternoons and Saturday mornings. A copy of the Admissions Tour Schedule is available from the Admissions Office.

Financial Information

Tuition, fees, and refund policies are subject to change at any time in accordance with policies established by the New Jersey State Board of Higher Education.

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

Tuition and fee rates are published each semester and for the summer sessions in the master schedule of classes. Please consult the appropriate issue for current rates.

Undergraduate Tuition and Fees

New Jersey Student (per credit)	\$30.00
Out-of-State Student (per credit)	50.00
Student Service Charge (per credit).....	1.50
Student Activity Fee (full-time, per credit).....	1.75
(part-time, per credit).....	.25
Student Center Fee (per credit).....	4.00
Student Athletic Fee (full-time, per credit)	1.25
(part-time, per credit)65
Late Fee (non-refundable).....	15.00
Bad Check Fee (non-refundable).....	15.00
Added Course Fee (non-refundable, per course).....	15.00

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 is used to 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 the semester.....	50%
Withdrawal after the first third of the semester.....	NONE

Dates for each of the above categories are published in the master schedule of classes each semester/session.

Tuition and fees are refunded in full when classes are cancelled by the College.

Late Fee Students paying tuition or fees late are assessed a late payment fee of \$15.00.

Added Course Fee Students requesting program changes are required to pay an added course fee of \$15.00 for each course added after the regularly scheduled program adjustment. Students who were enrolled in the previous semester and who register late are charged an added course fee of \$15.00 for each course for which they register.

Partial Payment Plan Students previously enrolled may defer tuition during the first third of the semester. Students not previously enrolled may defer 50% of the tuition. Students granted a deferral are assessed a late payment fee of \$15.00. Fees are not deferrable and an initial payment must be made for all fees, including the \$15.00 late fee. Students who do not pay the deferred tuition by the end of the first third of the semester are assessed an additional \$15.00.

Student Parking The parking fee for automobiles is \$10.00 for the school year. The motorcycle fee is \$1.00. The fee is non-refundable. Student cars and motorcycles without current decals permanently affixed are not permitted to park on campus.

Student Medical Insurance The current cost of voluntary student accident and sickness insurance is \$37.00 per year from September 1 to August 31. Coverage can also be purchased for a spouse or dependents.

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

Housing The charge for residing on campus is \$1590 per year. Students residing in the new residence hall complex are required to purchase a food plan for \$475 per semester. Students residing in the apartment dormitories have the option to purchase the food plan if they wish.

Financial Aid

Application Procedure for Financial Assistance Information regarding filing dates and procedures for applying for financial aid is given on the admissions application form. The Financial Aid office in Hobart Manor, Room 11, may also be contacted for further information.

All applicants must obtain a **New Jersey Financial Aid Form (NJFAF)** from their respective high schools, furnish the required information and mail it to the College Scholarship Service, P.O. Box 2859, Princeton, N.J. 08541.

The student should request that the NJFAF be sent to William Paterson College.

Dependent students must submit to the Financial Aid Office a copy of their parents' 1040 income tax form from the previous year.

Independent students must submit a copy of their own 1040 form and should read the instructions on the NJFAF to see what determines whether an applicant is dependent or independent.

Budgets for the School Year (Nine Months)

Financial need can only be determined by individual case studies, but the expenses outlined below reflect average costs. Applicants are required to reapply for financial assistance annually. However, recipients normally receive assistance for their entire undergraduate career as long as they continue to demonstrate financial need and carry the required academic grade point average. Budgets for independent students are adjusted according to federal guidelines.

Commuter Expenses:

Tuition and Fees	\$ 1065*
Books and Supplies	250
Other (Recreation, Personal, Transportation)	2685
Total	4000

Resident Expenses:

Tuition and Fees	1065*
Books and Supplies	250
Room and Board	2650
Other (Recreation, Personal, Transportation)	1285
Total	5250

*Subject to change by the New Jersey Department of Higher Education.

Eligibility

- To receive aid, a student must:
- Be a citizen of the United States, or a permanent resident.
 - Be accepted as a full-time/half-time matriculated student of WPC.
 - Be in need of financial assistance.
 - Plan to continue academic study for a bachelor's degree at the institution.
 - Maintain the required grade point average.
 - Not be in default on a National Direct Student Loan, Guaranteed Student Loan or a PLUS loan.
 - Not owe a refund on a Pell Grant or a Supplemental Educational Opportunity Grant.

All financial aid awards are based on need and are awarded without regard to race, religion, creed, age, sex or handicapping condition.

Federal Sources

Pell Grants Grants are based on financial need determined by a formula, approved by the Department of Education, which is applied consistently to all applicants. The formula uses the information provided on the NJFAF to produce a student aid index number. This student aid index number (not a dollar figure) is used along with the total cost of attending WPC part-time or full-time to determine the actual amount of the grant. Grants range from \$176 to \$1900.

Eligibility for a Pell grant does not directly affect eligibility for any other campus-based aid. However, WPC and the State of New Jersey require that a student apply for a Pell grant before being considered for other aid. The state of New Jersey further requires all applicants to check Item 43 "Yes" on the NJFAF.

College Work-Study (CWS) This program provides jobs for students who are in need of financial assistance which permits them to work up to 20 hours per week. A student may apply if enrolled as a graduate or undergraduate student in an approved postsecondary institution.

An institution that participates in College Work-Study may arrange jobs on campus or off-campus with a public or private non-profit agency such as a hospital. If eligible, students may be employed for as many as 40 hours a week.

In arranging a job and determining how many hours a week a student may work under this program, the financial aid officer takes into account: 1) need for financial assistance; 2) class schedule; and 3) curriculum and academic progress.

National Direct Student Loans (NDSL) This program is for students who are enrolled at least half time and who need a loan to meet educational expenses.

A student may borrow up to a total of: 1) \$3,000 if less than two years of a program leading to a bachelor's degree has been completed; 2) \$6,000 if an undergraduate who has already completed two years of study toward a bachelor's degree (total includes any amount borrowed under NDSL for the first two years of study); 3) \$12,000 for graduate study (total includes any amount borrowed under NDSL for undergraduate study).

Repayment begins six months after graduation or departure from school for other reasons. A student may be allowed up to ten years to pay back the loan. During the repayment period five percent interest on the unpaid balance of the loan principal is charged.

There are four types of deferments: 1) Volunteer service in a private non-profit, VISTA or Peace Corps-type organization; 2) Service as an officer in the U.S. Public Health Service Commissioned Corps; 3) Temporary total disability; 4) Service in an internship preceding a professional practice.

The financial aid officer also has information about loan cancellation provisions for borrowers who enter fields of teaching or who teach in designated schools.

Supplemental Educational Opportunity Grants (SEOG) SEOG is for students with exceptional financial need who would be unable to continue their education without the grant.

A student is eligible to apply if enrolled at least half-time as an undergraduate in an educational institution participating in the program. SEOG's cannot be less than \$200, or more than \$2,000 a year. Normally, an SEOG may be received for up to four years. However, it may be received for five years when the course of study requires the extra time. The total that may be awarded is \$4,000 for a four-year course of study or \$5,000 for a five-year course. Graduate students are not eligible.

Nursing Student Loans (NSL) This financial assistance may be awarded in the form of a loan and cannot be for more than \$2,500 a year. Not more than \$10,000 may be awarded in the form of loans over a four-year period.

Veterans' Affairs The educational assistance program administered by the Veterans' Administration provides financial aid for the education of all eligible veterans or dependents of deceased and disabled veterans attending William Paterson College. The College provides direction and serves as a certifying agency with regard to veterans' educational benefits and/or dependents' educational assistance. For other services available, see p. 9.

State Sources

Tuition Aid Grant (TAG) This program is for full-time undergraduates. To be eligible a student must be pursuing a full-time academic program of studies with a minimum of 12 credits per semester. TAG awards can be from \$200 to \$860. To be eligible for a Tuition Aid Grant, it is essential that a student file a NJFAF, which also calculates the Pell grant. A student must be a United States citizen, or a permanent resident, and be an established state resident for 12 months prior to receiving a Tuition Aid Grant. The state of New Jersey requires all applicants to fill out Item 45.

Garden State Scholarship Program (GSS) These scholarships are awarded to students demonstrating high academic achievement and financial need. The awards are for full-time undergraduate study in New Jersey institutions of higher education and are renewable during the normal undergraduate period.

Grants range from \$200 to \$500. The exact amount is determined by the financial aid office and depends on student's financial need, taking into account family contribution and other aid received, the total of which may not exceed the student's college budget.

Garden State Scholarship recipients must be continuous residents of New Jersey for 12 months immediately preceding receipt of the award; and each scholarship shall remain in effect only during the period in which the recipient achieves satisfactory academic progress as defined by the institution, continues to meet the established eligibility criteria and guidelines, and is regularly enrolled as a full-time student in an approved institution. Garden State Scholarships are renewable annually for up to four years.

Educational Opportunity Fund (EOF) All students applying for admission to the Educational Opportunity Fund program must be determined to be eligible and be accepted for admission to the program. Grants range from \$350 to \$600 per academic year, renewable annually. Further information about the program can be found on p. 14.

Student Assistant Work Program (SA) Under this program, students with no apparent "need" may obtain employment on campus. Hours and pay rates are similar to CWS.

Guaranteed Student Loans (GSL) This program enables a student to borrow directly from a bank, credit union, savings and loan association, or other participating lender willing to make the loan. The loan is guaranteed by a state or private non-profit agency or insured by the federal government.

The maximum an undergraduate dependent student may borrow is \$2,500 a year with an aggregate of \$12,500. The maximum an undergraduate independent student may borrow is \$2,500 a year with an aggregate of \$12,500. A graduate or professional student may borrow up to \$5,000 per year. Total loans for graduate or professional study cannot exceed \$25,000, including loans made at the undergraduate level. All students are eligible for the lower federal interest rate of 9 percent, applicable to loans made after Jan. 1, 1981.

A new program of loans to parents for dependent undergraduate students is established by section 428B of the new law. The maximum amount a parent may borrow for any one student in any academic year is \$3,000. The aggregate loan limit for each dependent student is \$15,000. Repayment is required to begin within 60 days after disbursement, and there is no in-school federal interest subsidy on these loans. The interest rate is 14 percent.

Public Tuition Benefit Program Dependents of policemen, firemen, and volunteer first aid or rescue squad members killed in the performance of duty are eligible for free tuition at public colleges and universities in the state of New Jersey.

Enacted as law by the state legislature, the program, which began September 1, 1980, specifies that surviving spouses must attend college within eight (8) years from the date of the member's death, and surviving children must enter college within eight (8) years of the date of their high school graduation.

Other Sources

Academic Merit Scholarships William Paterson College makes available a limited number of academic merit scholarships each year. To be eligible, a student must be an undergraduate, have been in attendance for at least one semester, and have a cumulative grade point average of 3.45 or better with a minimum 12-credit load. Students whose grade point average make them eligible will be notified in writing and invited to apply for an award.

Small Loan Program The Student Government Association has made funds available to students in need of petty cash. The loan cannot exceed \$25.00. Students must be matriculated and in good academic standing. All small loan information is available from the assistant to the dean of students or the Student Government Association.

Financial Rights and Responsibilities

Rights Students have the following rights:

1. To know what financial aid programs are available at the school.
2. To know the deadlines for submitting applications for each of the financial aid programs.
3. To know how financial aid is distributed, how distribution decisions are made, and the bases for these decisions.
4. To know how the financial need was determined, including how costs for tuition and fees, room and board, travel, books and supplies, personal and miscellaneous expenses, etc., are considered in student budgets.
5. To know what resources (such as parental contribution, other financial aid, student's assets, etc.) were considered in the calculation of their needs.
6. To know how much of the financial need as determined by the institution has been met.
7. To request an explanation of the various programs in the student aid package.
8. To know the school's refund policy.
9. To know what portion of the financial aid received must be repaid and what portion is grant aid. If the aid is a loan, students have the right to know what the interest rate is, the total amount that must be repaid, the payback procedures, the length of time available to repay the loan, and when repayment begins.
10. To know how the school determines whether students are making satisfactory progress and what happens if they are not.

Responsibilities Students have the following responsibilities:

1. To complete all application forms accurately and submit them on time to the right place.
2. To provide correct information. In most instances, misreporting information on financial aid application forms is a violation of law and may be considered a criminal offense which could result in indictment under the U.S. Criminal Code.
3. To return all additional documentation, verification, corrections, and/or new information requested by either the Financial Aid Office or the agency to which the application was submitted.
4. To read and understand all forms they are asked to sign and to keep copies of them.
5. To accept responsibility for all agreements they sign.
6. To perform the work agreed upon when accepting a College Work-Study award.
7. To be aware of and comply with deadlines for application or reapplication for aid.

8. To be aware of the school's refund procedures.
9. To consider this information carefully before deciding to attend a school. All schools must provide information to prospective students about the school's programs and performance.

Questions Asked on Student Financial Aid

1. What is financial aid? Financial aid is any grant, loan, scholarship, or offer of campus employment designed to make up the difference between what a student and his parents can afford and what it will actually cost to go to the college. Financial aid usually does not come from one source, but rather from a combination of programs. These awards are called "packages," and the total amount of a financial aid package is determined by the amount of financial need a student has and the availability of funds and programs available at the College.

2. How does one apply for financial aid? Student who wishes to apply for financial aid at William Paterson College is required to fill out and submit a New Jersey Financial Aid Form (NJFAF) to the College Scholarship Service. NJFAFs are available from the Financial Aid Office at William Paterson College or from high school guidance offices. This form should be filed by April if the student wishes to be considered for aid for the subsequent academic year, although forms submitted after this date will be accepted. A copy of the student's and/or parent's income tax form must be sent to the Financial Aid Office. It is important to file as early as possible, especially if the student expects to use financial aid awards to meet all or part of term bills. Awards are normally made for the full academic year.

3. What is financial need? The amount of money a student and his family can afford to pay for educational costs is called a "student's family contribution." A college budget consists of the amount of money required to attend college, including tuition, fees, books, transportation, housing, meals, and personal expenses. Simply put, if the student's college budget is greater than a student's family contribution, the difference is that student's financial need.

4. How is a student's family contribution determined? A uniform method of need analysis, developed by the College Scholarship Service and accepted and approved by the Department of Education, determines a student's family contribution. A standardized formula is applied to the information submitted to the College Scholarship Service by the student's family on a New Jersey Financial Aid Form (NJFAF). This formula takes into account a variety of factors, including family and student income, assets, family size, number of family members in college, and certain debts. This need analysis, including an expected family contribution, is forwarded to those colleges chosen by the student, as well as to any designated state or federal grant programs requiring this data.

5. Where do financial aid funds come from and how are they disbursed? There are four primary sources of financial aid: federal programs, state programs, institutional funds, and private sources. The Financial Aid Office administers and coordinates all federal, state and institutional programs and notifies students as to the amount and type of aid in their award package.

6. Do financial aid awards have to be repaid? Grants or scholarships do not have to be repaid and, consequently, are regarded as "gift" aid. Loans must be repaid to the lender, but repayment is generally deferred until after a student completes his education. Campus employment income, paid to the student for work performed, does not have to be repaid.

7. Are there income levels above which students are not eligible for financial aid? There is no absolute cut-off for all financial aid programs. Programs differ in their requirements, and a wide variety of factors is considered. In general, grants are awarded to students demonstrating the highest need. Student employment and government loans are more likely to be offered to students showing less need. Guaranteed Student Loans (GSL) are available to students who establish unmet need through a needs analysis test. All students who require even some assistance in meeting college costs are urged to apply for financial aid.

8. Must applications for aid be renewed each year? Yes, they must be renewed for each academic year. The information submitted on the New Jersey Financial Application Form must be resubmitted for each year aid is requested, to be considered for all federal and state programs, as well as the work-study program.

Educational Services

Academic Advisement

The Academic Advisement Office, located in Raubinger Hall, facilitates the undergraduate advisement process to insure that each student receives the curriculum guidance necessary for academic success. In addition to developing general advisement materials and acting as a referral service for students and faculty, the office provides the following services:

Assignment of Faculty Advisors Upon admission to the College, each student is assigned a faculty advisor to provide assistance with curriculum planning appropriate to the major course of study.

All students must meet with their faculty advisors prior to registering for courses each semester. Information on office location and office hours of faculty advisors is available in the Peer Advisement/Information Center.

Peer Advisement/Information Center The Academic Advisement Office operates the Peer Advisement/Information Center as a supplement to the advisement services offered by faculty advisors.

Trained student advisors offer assistance with general education, liberal studies and elective course selections, and how to use the curriculum control sheet, which outlines degree requirements for a major.

Located just inside the main entrance of Raubinger Hall, the center functions as a centralized outlet and distribution point for campus information, including undergraduate catalogs, curriculum control sheets for every major, class schedule booklets and graduate school test booklets.

Declaration/Change of Major(s) Students may declare or change one or more majors after completing at least one semester at WPC. Declaring or changing majors is a four-step process:

1. The student completes a declaration/change of major(s) application in the Peer Advisement/Information Center. This form can be completed during the months of September, January, and July.
2. The application is sent to the academic department chairman of the requested major(s) for consideration.
3. The student is notified by the Academic Advisement Office of the department chairman's decision.
4. If the student is accepted into the requested major department, a faculty advisor from that department is assigned to the student by the Academic Advisement Office. If the student's application is rejected by the requested major department, the Academic Advisement Office provides the student with reasons for rejection, as well as alternative courses of action.

Students should declare a major no later than the end of the sophomore year.

Career Counseling and Placement

The Career Counseling and Placement Office is concerned with all aspects of student development related to career decisions.

It provides all students with vocational counseling related to choosing, preparing for, entering into, or progressing in an occupation and assistance in locating part-time and summer work off campus.

Graduating seniors, matriculated graduate students, and alumni are helped to find suitable employment. Each fall, graduating seniors are mailed a kit containing instructions for preparing a complete credential file and samples of important documents, such as resumes, cover letters, and reference forms. Help in developing dual files for teaching and non-teaching positions is also available where needed. **Note:** Transcripts are not a part of credential files.

The Career Counseling and Placement Office also offers students and graduates:

1. Advice in preparing resumes and cover letters.
2. Vocational clinics which help develop interviewing skills and techniques and methods for marketing individual skills.
3. Psychological and vocational testing.
4. Individual and group vocational counseling for individuals in need of clarifying their ultimate goals.
5. Annual career conferences which expose students to current career information and help them to establish contacts with potential employers. A variety of recruiters come to the campus each year to interview prospective candidates for positions with their firms and agencies.
6. Reading materials which serve as career counseling guides. A career library—designed to stimulate career interest, convey career knowledge, and aid in the selection and pursuit of a career—offers an extensive selection of information and resources. A special graduate section is devoted to graduate programs, internships, and assistantships. Other library 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.

Center for Academic Support

The Center for Academic Support provides academic advisement for special-category students and tutoring and workshops for individuals seeking assistance in course work and basic skills.

Anyone in need of academic assistance should apply directly at the facility. The Center is located between Raubinger Hall and the Coach House. There is no charge for services to all registered WPC students.

Counseling Services

The Counseling Department offers a wide range of counseling services to students. Staff members trained in clinical and counseling psychology are available to meet counseling, readmission interviews, or leaves of absence and withdrawal consultations.

Psychological counseling interviews are private and totally confidential. Initial interviews are arranged within a few days of a student's request. Emergency situations, of course, are handled immediately.

A psychologist is available, without charge, to discuss any deep personal conflicts that may be preventing a student from moving forward and achieving goals. Both short-term individual and group psychotherapy are offered.

Disabled Students Services

The office of the assistant to the dean of students coordinates services for disabled students and staff. Assistance in registration, advisement, parking, referrals, and special needs are provided.

Health Services

The Health Office in White Hall, open during the school day, Monday through Friday, and staffed by three full-time nurses and a daily part-time physician, serves the medical needs of students. Each student is required to submit a self-evaluation medical history form prior to entry. 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 continuing in college.

Housing

On campus Three air-conditioned residence halls accommodate more than 1,500 students.

Pioneer and Heritage Halls offer comfortably-furnished apartments. Each two-bedroom unit houses four students who supply their own cooking utensils, bed linens and personal effects. All other items, including beds, desks, lamps, chairs, refrigerator and electric stove and oven are provided.

Each room in the new residence hall complex houses two students and is complete with modern furnishings. Two rooms, connected by a bathroom, comprise a suite. Students are expected to provide their own linen and personal effects.

Students in Pioneer and Heritage Halls who do not choose to use the kitchen facilities may eat off campus or in any of the College's dining facilities, Wayne Hall, the Student Center restaurant or snack bar, or Billy Pat's Pub.

Unlike Pioneer and Heritage Halls, the new residence complex contains no major cooking facilities. Students must subscribe to a meal plan, at a cost of \$475 per semester. They, too, may eat in any one of the campus dining facilities.

All residence halls are co-ed and 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 \$1590 per year. The amount is payable in two equal amounts prior to the first day of each semester. Due dates are established by the Housing Office for those students who move in at other times during the school year.

The health of resident hall students is under the supervision of the college nurses and physician. A nurse is on duty nights to assist in cases of illness, accidents, and emergencies. All residents, regardless of age, must submit a medical release in the event emergency treatment is required.

All residents must be covered by either a family or a college medical insurance policy during their term of occupancy in the residence halls.

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

Insurance

Students and their parents are urged to enroll in the insurance plan. Family insurance often does not cover children after their 19th birthday. The policy offered is in force, regardless of family policies, 24 hours a day, 12 months of the year. Instructions can be obtained at the Health Office.

Veterans Affairs

The Office of Veterans Affairs provides services for veterans, or dependents of deceased and disabled veterans.

Supportive counseling and referral services, and supplemental academic assistance, are available to all veterans regarding 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.

Academic Regulations

Every student is expected to know and comply with policies and regulations stated in this catalog. Students are also expected to be aware of and responsible for their 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 admission, programs and instruction and graduation. Changes go into effect when determined by the proper authorities and apply to prospective students as well as to those already enrolled.

The administration of academic regulations is the function of the dean of each school. A student may request in writing, through the department chairman to the appropriate dean, an exemption from or waiver of a particular academic regulation.

Attendance

Students are expected to attend regularly and punctually all classes, laboratory periods, and other academic exercises. Students are responsible for all 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.

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. Value: four grade points.

B—A grade of B indicates more than acceptable standards 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, and originality in quality and execution. Value: 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, 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. Value: 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. Value: one grade point.

F—A grade of F indicates that work of sufficient quality and/or quantity has not been presented by the student. Value: no grade points.

P—Passing. Acceptable work presented in certain courses. The grade is 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.

M—Missing. Indicates that a grade was not submitted.

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 the department chairman. A student who fails to pass a given course may repeat it. However, the original F grade is not expunged. In some such cases, the privilege of re-examination is permitted, but then 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 end 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 are automatically changed to a grade of F by the registrar. Seniors, during their final semester, are not awarded incomplete grades. This permits the evaluation of eligibility for graduation prior to the close of the final undergraduate semester.

Class Standing

Class standing 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 57 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 such intention at the time of registration and is not permitted to change his intention after the registration period is complete. 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 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.

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.

Credit

A credit is a unit or measure of curricular work. 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.

Course Credit Load

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

A student must be registered throughout the semester for a minimum of 12 credits to be considered full-time. A student who registers for a minimum full-time load and then withdraws from courses, bringing his credit load below the minimum full-time requirements, relinquishes full-time status.

Part-Time Students Students carrying less than 12 credits are part-time students.

Non-Degree Students The non-degree student is limited to part-time enrollment each semester and may acquire a maximum of twenty-four (24) credits as a non-degree student. To proceed beyond this maximum, the non-degree student must apply for formal acceptance to a program through the Admissions Office.

Pre-Session and Summer Session Students who register for the four-week 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 all students.

Academic Standing Guidelines

Credits Attempted
 23 credits or less*
 24 to 30 credits
 31 to 60 credits
 61 to 90 credits
 91 to graduation

Good Standing
 2.00 or better
 2.00 or better
 2.00 or better
 2.00 or better
 2.00 or better

Automatic Probation
 Not Applicable
 1.99 to 1.20
 1.99 to 1.70
 1.99 to 1.90
 under 2.00 with one
 semester or term to
 achieve a 2.00

Dismissal
 Not Applicable
 1.19 or less
 1.69 or less
 1.89 or less
 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 semesters to complete one academic year.

Academic Standing

The policy on academic standing is that approved by the Board of Trustees on August 30, 1976. The basic principle is that any student whose grade point average falls below 2.0 is no longer in good standing. The guidelines above 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 semester. 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.

Dismissal After annual determination of student standing by the registrar, dismissed students may no longer take courses. Dismissed students who have registered for new courses prior to receiving a dismissal notice will have their tuition and fees refunded and will be withdrawn from the courses. Appeals of dismissal decisions may be made in writing to the appropriate dean through the registrar. These must be filed within seven days after receiving a letter of dismissal. It is the responsibility of the student to provide additional information or documentation beyond the grade point average itself which might warrant reconsideration and, perhaps, reinstatement. Appeal decisions should be rendered by the appropriate dean no later than August 15.

Grade-Point Average

A student's academic standing is indicated by the 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.

Example:

	Credits Attempted	Credits Earned	Grade	Grade Points
Organic Biochemistry	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 William Paterson College are computed in determining the grade point average.

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 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 advisor.

Upon admission to the College and to a major program, the student is given a work program, outlining particular requirements and recommending the sequence in which he should pursue those requirements. It is the student's responsibility to maintain the 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.

Academic Honors

Dean's List A student carrying a minimum of 12 credits who earns a grade point average of 3.45 or better is named to the dean's list.

Courses taken under pass/fail option are not counted toward the 12-credit requirement.

Graduation Honors Students who have completed at least 60 credits at William Paterson College and who graduate 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

Seniors who fall below a 2.00 cumulative grade point average during the senior year are 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 are notified of probation or dismissal and must see the appropriate dean for consideration about continuing.

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

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 director of counseling and psychological services.

Students who withdraw from the College or from all of their courses must consult with the Admissions Office for readmission to the College according to the admissions calendar for the year following. Readmission is not automatic; enrollment and other considerations may not permit return at that time. Students on probation who withdraw and, subsequently, seek readmission must also seek readmission to a major, if a major had been previously declared.

Leave of Absence A student who finds it necessary to leave college for one or more terms may apply for an official leave of absence if he qualifies scholastically, and thereby maintains status as an admitted full-time student.

Leaves of absence are processed by the Office of Counseling and Psychological Services and require an exit interview with a member of that office's staff.

General Curriculum Requirements

To qualify for an undergraduate degree at William Paterson College, a student must earn a minimum of 120 credits. In most instances, the total will include:

60 credits in general education, most taken during the first two years;

30-40 credits in an area of specialization (major);

20-40 credits in elective courses, taken throughout the last three years of study.

Students must take responsibility for making sure that their selection of courses meets the requirements of their chosen degree program; they should consult regularly with their faculty advisor for guidance.

This pattern may be varied by obtaining credit through advanced standing or placement; special and challenge examinations, the College-Level Examination Program (CLEP), the College Proficiency Examination Program (CPEP), and for military training and experience.

These opportunities are described in detail under "Curriculum Individualization" on p. 13.

Electives may be chosen entirely on the basis of interests. They may be taken to complement general education requirements, develop a minor in another area, qualify for a vocational certification, increase competence in the major, prepare for graduate study, or to satisfy curiosity.

To take a course which has a prerequisite, a student must successfully complete the prerequisite, or obtain special permission from his adviser to take the elective without the prerequisite.

Freshman Basic Skills Program

On March 18, 1977, the Board of Higher Education of New Jersey mandated a basic skills program to test all entering freshmen in state public colleges and to provide remediation in reading, writing and mathematics for those students whose performance on tests in these areas are unsatisfactory according to current college standards. Assessment of basic skills is made through the administration of the New Jersey College Basic Skills Placement Test which consists of the following: essay, reading comprehension, sentence structure, computation and elementary algebra.

Tests are administered to all who are accepted as full-time freshmen, to freshmen transfer students who have not taken these tests, and to part-time non-degree students registering for the 12th credit. Students enrolled in the six-credit freshman program, **English as a Second Language**, are tested upon completion of the program.

Students needing remediation are placed in appropriate courses to develop essential academic skills. Students requiring remedial work in reading and/or writing may

not register for more than 12 credits per semester, including remedial courses, until they have completed these requirements. Students requiring remedial work in mathematics only may not register for more than 15 credits per semester, including remedial courses, until they have completed these requirements. Basic skills courses carry college credit but do not count toward the credits required for a baccalaureate degree. Credits earned in remedial courses are included in determining students' classification (e.g., sophomore, junior, senior) and in defining full-time student status.

To continue at the College, students must either achieve satisfactory scores on the basic skills placement test, or complete assigned remedial courses successfully before enrolling for their 46th credit.

Before students may enroll in ENG 110, **Writing Effective Prose**, or advanced mathematics courses, they must pass any required basic skills courses in the appropriate areas.

All students must earn a grade of "C" or better in ENG 110, **Writing Effective Prose**. Normally students meet this requirement in the freshman year and must meet it before start of the junior year. Students whose first language is not English, as determined by a standard test (TOEFL) score, must pass ESL 101 and ESL 102, **English as a Second Language**, before enrolling in either regular or specially designated sections of ENG 110, as determined by a professor's evaluations or placement tests.

Undergraduate Degree Requirements

Bachelor of arts and bachelor of science degree programs at William Paterson College are comprised of course work in general education, concentration in a major, and elective courses, totalling 120 credits.

General Education The goal of general education is to provide broad, coherent knowledge for the development of the individual and his/her participation as a citizen in society. Common knowledge is needed to foster critical and creative thinking, effective writing and communication, and the formation of humanistic values.

To this end, general education courses introduce the student to basic concepts and methods in major fields of knowledge. Their collective aims are to develop an appreciation of literature and the arts, an understanding of the natural world and knowledge of our own and other societies and cultures.

Sixty (60) credits of general education course work must be completed for the bachelor of arts and bachelor of science degrees.

Major Courses A student should pursue a discipline or course of study in sufficient depth to be acquainted with both the basic body of knowledge therein and the frontiers to which it reaches. Credit require-

ments for major areas of concentration vary according to type of program. Courses applied to a major may not be used to fulfill general education requirements.

1. In a bachelor of arts program, major courses total between 30 and 40 credits.
2. In a bachelor of science program, up to 60 credits may be required.
3. In specialized degree programs, such as the B.F.A. and the B.Mus., major course requirements may exceed 60 credits.

Elective Courses Students are encouraged to explore areas of study not included under the general education designation and **not** included in the major course of study.

General Education Requirement The general education requirement is divided into two parts, the college curriculum requirement (45-46 credits) and the school curriculum requirement (14-15 credits).

College Curriculum Requirement 45-46 credits

- A. **Arts and Communication** 6 credits
- Art
 - Music
 - Theatre
 - Communication
- No more than 3 credits may be taken in any department.
- B. **Humanities** 15 credits
- Writing Effective Prose** 3 credits
 - Foreign Language 3 credits
 - History 3 credits
 - Literature 3 credits
 - Philosophy 3 credits
- C. **Science** 6-7 credits
- Mathematics 3 credits
 - Science 3-4 credits
- (4 credits if a lab course)
- D. **Social Sciences** 9 credits
- Anthropology
 - Geography
 - Political Science
 - Psychology
 - Sociology
 - Economics (from the School of Management)
- No more than 3 credits may be taken in any one area.
- E. **Other** 9 credits
1. A course in health or movement science 3 credits
 2. A course dealing with racism and/or sexism in America 3 credits
 3. A course in computer literacy 3 credits

Waivers from college curriculum requirements are provided, when deemed necessary. When the need for a waiver arises because of requirements for mandated courses set by an outside accrediting agency, priority is given to the requirement of the accrediting agency. A student who requests a waiver should apply to the major department chairman, who then forwards the request to the appropriate dean.

The remaining general education requirements are stipulated by the major department and/or school.

Policy on Independent Study

The purpose of the undergraduate independent study program at William Paterson College is to encourage self-education under the auspices of a faculty supervisor. The program is open to junior and senior students who have shown themselves responsible and capable of self-direction and who possess a grade point average of at least 3.0, both overall and in the major, or in the field of the independent study. Independent study cannot substitute for an existing course, but may be utilized in lieu of a degree requirement.

A student cannot undertake an independent study for which the student has had no background. The choice of topic for an independent study should be initiated by the student.

An application form, with a one-page prospectus, shall be submitted to the sponsoring faculty member. The application form requires the approval of the faculty member, the department chairman and the dean of the respective school. The completed application shall be submitted by the dean to the registrar no later than the late registration period for the semester in which the independent study is to be undertaken. This deadline may be moved to an earlier time at the discretion of a department. The prospectus should include:

1. Statement of the purpose of the project.
2. Description of the proposed methodology to be used in carrying out the independent study.
3. A brief preliminary bibliography.
4. A proposed time schedule.
5. If the project is expected to continue for two or more semesters, it should be clearly stated which part of the proposed work should be completed by the end of each semester.
6. Description of the final product which will be evaluated for independent study credit.

Three credits of independent study may be undertaken in a given semester, no more than nine credits of independent study may be credited toward degree requirements. Credit and grade is awarded by the faculty sponsor.

Multiple Major Courses of Study

A student can elect a second major course of study. Upon successfully completing an additional major, the student is awarded a single degree. Notation of completed major courses of study are made on the student's official transcript. The student determines the primary major, but is counted as a full major in each program.

General Arts and Sciences Students

Students who exercise their option not to select a major program when first enrolling in the College are classified as general arts and sciences students. Such students should normally attempt to complete the general education requirement during the first two years 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.

The course requirements for each major are described fully elsewhere in this catalog. Major requirements are established by department faculty.

Curriculum Individualization

The degree programs outlined in the respective majors represent minimum requirements for all students who wish to receive a baccalaureate degree from William Paterson College. The College does, however, offer credit options to students who demonstrate unusual experiences, interests, and abilities.

Undergraduate students may receive course credit, advanced placement, or advanced standing. Criteria include school records, official documents, and various examinations referred to below. Credit thus gained may be used to accelerate or enrich a student's program. Students who wish to complete a degree in a shorter period of time may pursue various acceleration options; students who wish to complete work or courses beyond those ordinarily prescribed in a major or for a degree may choose enrichment opportunities.

Credit by Examination 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 transcript. 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 made for students in their final semester of degree completion.

Since college policy requires that a student complete his last 30 credits at WPC, a student may be awarded a maximum of 90 credits toward the baccalaureate degree through CLEP, CPEP, challenge examinations, and other credits awarded for advanced standing. Students who avail themselves of this maximum advanced standing credit are, nevertheless, 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 Examination Program is a nationally-recognized series of general and subject examinations which test primarily the content and theory of undergraduate courses normally offered during freshman and sophomore years. They are prepared, updated, and processed by the Educational Testing Service. The general examinations consist of tests in the five following areas: English, humanities, mathematics, natural sciences, and social studies-history. Successful completion of the full battery of general examinations entitles 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, three-credit courses; others to two-semester, six-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, is granted only upon successful completion of the subject examination: **College Composition and Essay**.

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Credit is awarded to students upon the initial test or 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 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 general education 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, at other times, different from the CLEP series. The major New Jersey institution employing CPEP examinations is Thomas A. Edison College.

William Paterson College recognizes and accepts 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 fulfillment of 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 CLEP tests, only results of the initial testing are recognized by William Paterson College. 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 count 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 is 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 three 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 USAFI.

Air Force ROTC William Paterson students can earn appointments as commissioned officers in the United States Air Force through an ROTC crosstown agreement with the New Jersey Institute of Technology. Students with two or more years of college remaining, in either undergraduate or graduate programs, 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, benefits and procedures of the program, contact the Office of the Registrar.

Special Programs

Pre-Medical Programs

Students interested in careers in medicine, osteopathy, podiatry, dentistry, or veterinary medicine should see pp. 89.

Pre-Law Preparation

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

In general, the pre-law student should concentrate on developing 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 acquired undergraduate majors in every conceivable field.

Although a pre-law student can prepare to study law through avenues that appeal to his particular talents and interests, some specific recommendations can be made. Advanced English composition and a year of both accounting and economics may be considered as prerequisites for law school. 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 method, an appreciation of the importance of accuracy and, in this modern era, some awareness of the significance of technology.

As long as the student is aware that there is no single pre-law curriculum, and does not attempt to take courses in all the areas mentioned above, selected courses, taken with the counsel of an advisor, may substantially enrich pre-law preparation. The offerings are interdisciplinary and coordinated by the School of Management in conjunction with the Schools of Humanities and Social Science.

The Educational Opportunity Fund Program

The Educational Opportunity Fund program (EOF) is a special admissions and support program for students who are educationally underprepared and financially disadvantaged. The program is designed to provide full financial support and a broad range of educational and counseling assistance for all eligible students.

The program offers students the opportunity to begin their college experience in a summer program organized to assist students to become familiar with the academic demands of higher education, to strengthen basic skills, and to gain exposure to the campus and college life. The EOF program also assists students in their personal and social adjustment to college.

To be eligible, students must have been residents of New Jersey for the past year, have a gross family income which does not exceed \$12,000, and demonstrate potential for academic success.

Continuing Education

In conjunction with each of the schools of the College, the Office of Continuing Education offers conferences, workshops and seminars each semester for professionals in business, education, government, and health services. These offerings are developed in recognition of the fact that continued competence in one's profession requires constant updating. The latest methods, techniques, theories and ideas in various areas are explored in these programs by members of the William Paterson College faculty and national and local specialists.

To cause minimal disruption in professionals' busy lives, most continuing education programs are scheduled on Saturdays. Generally, workshops and conferences are offered for upper undergraduate or graduate credit or noncredit. The majority of participants come from out-

side the College, although William Paterson College students are encouraged to attend offerings which cover topics of special interest to them.

Continuing professional education, however, is only one of the continuing education activities, which involve the entire college community. Those who resume study after a time lapse, adults who seek additional training for career growth, and people who desire intellectual stimulation for personal enrichment form a significant segment of the student population. Many attend on a part-time basis, days, evenings or Saturdays.

The Office of Continuing Education works with other administrative offices to provide support services for nontraditional students. A continuing education catalog is published every semester. It includes information about attending college part-time, financial aid available, admission procedures, a schedule of courses, and a list of special conferences and workshops. Further information is available from the Office of Continuing Education at 595-2436.

Summer Sessions

The College offers two separate day and evening sessions during the summer months. Pre-session is a four-week program offered in June. The regular summer session makes available to regularly enrolled and visiting students an extensive offering of courses. Information about both sessions is available upon request from the Office of Continuing Education.

National Student Exchange Program (NSE)

The National Student Exchange Program provides students with educational alternatives in one of 54 participating institutions throughout the United States. Sophomore and juniors with a minimum GPA of 2.5 are eligible to exchange for one semester or a full academic year at in-state tuition rates. Room and board, as required, are arranged with the host institution. Further information and application may be obtained from the Office of the Dean of Students.

Semester Abroad

Semester Abroad, a 15-credit program, is open to students above the level of freshman and involves directed study and individual research at selected institutions in Denmark, Great Britain, Israel, Australia, Greece and Spain. To qualify as an applicant, a student must have a minimum 2.5 GPA on a 4.0 scale and must be approved by a review committee selected from the college staff. Students who wish to use this experience in any way related to their major programs must also receive authorization from their major department. Additional information is available from the Office of Student Services.

Honors Programs

Biopsychology The honors program in biopsychology draws on discoveries in such fields as behavior genetics, neuroanatomy, brain chemistry, neurophysiology, psychopharmacology and many others to unravel the biology of the mind and behavior. The National Science Foundation awarded two grants to support the development of this program. As with all honors programs at WPC, biopsychology is not a major, but a distinctive cluster of courses which adds breadth to, and reinforces, students' chosen majors.

Open to majors in psychology, biology, chemistry, sociology and nursing, this program is highly recommended for students planning graduate study—including pre-medical/dental/veterinary/graduate nursing students—and, in general, those students interested in clinical or research careers. As an honors program, biopsychology is designed for highly motivated individuals seeking opportunities both to learn and demonstrate excellence.

Interested students begin with a set of foundation courses carefully selected to provide a firm basis for the study of more advanced disciplines. Foundation courses begin in the freshman year. Students begin taking the core biopsychology courses in the junior year. The curriculum is enriched with seminars, discussion groups, research opportunities and speaker series. Students and faculty participate together in a closely knit academic community.

Humanities The humanities honors program provides a humanistic focus on a student's course of studies. Drawing upon literature, art, philosophy, history and religion, the program examines a wide variety of human ideals, goals and values from the classical to the modern era.

Students majoring in the humanities, the social or physical sciences, business or the professions can benefit from the perspective afforded by the humanistic disciplines.

Courses are team taught by faculty members of the humanities' departments who discuss the evolving patterns of human self-awareness in the great writers of the classical, medieval, early modern and contemporary worlds. The program makes ample use of guest speakers, films and special events to enhance regular classes. Students also have the opportunity to work independently on private projects.

International Management Students of exceptional ability and interest become eligible to enter the honors program in international management during the first semester of the 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 such as history, geography and anthropology in Latin American, Far Eastern or European affairs. Students graduate with a bachelor's degree in their major "with honors in international management."

There are eight model curricula for students majoring in either business administration, economics, accounting, political science, history, geography, sociology, or foreign languages. 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 and was selected by the Council on Learning as one of 50 exemplary programs of international education in the United States.

Policy Analysis The honors program in policy analysis is an interdisciplinary program designed to provide students with applied training in the social sciences. The field involves the application of available knowledge in the various areas of the social sciences—psychology, sociology, political science, economics, anthropology and geography—to the formation, implementation and evaluation of policy of the federal state and local government levels, and within corporations.

Government expansion in areas such as social services for children and the aged and in environmental protection has resulted in an ever expanding need for people trained in the social sciences as well as in policy analysis. Businesses are increasingly socially responsible, and policy analysis students can aid departments of consumer and public affairs.

The program is open to majors in psychology, sociology, anthropology, geography, political science and economics and is designed particularly for highly motivated students who wish to explore more specific areas and topics in depth. Students in the program take four courses specifically designed for the policy analysis honors program and also participate in an internship. Supporting courses in social science areas other than the major complete the program. Students are advised to apply as early in their college careers as possible.

Graduate Programs

The College offers regular graduate programs leading to a master of arts, master of science, master of education and master of business administration.

Detailed information about programs, course offerings, and admission requirements may be obtained by contacting the Graduate Admissions Office.

Student Life

Recognizing the need for the social and cultural, as well as the academic development of the individual, WPC offers a wide range of activities to meet the needs and interests of the entire student body. Students directly participate in selecting, planning and implementing social and cultural events. 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. Annual activities generally include Homecoming, Fall Fest, Spring Week, feature and art films, Coffee House rock and jazz concerts, jam sessions, lectures, dances, theatre presentations, art exhibits and many others. Any student who wishes to participate on committees, or join any club or organization may obtain information by contacting the director of student activities or the Student Government Association in the Student Center. All students are encouraged to participate in the activities of their choice.

Student Center

The Student Center serves as the campus focal point for social, cultural, and recreational activities for the entire college community. Students, faculty, staff, community members, and alumni congregate here for a wide range of events and to use Student Center services and facilities which include office and file space for student organizations, such as the Student Government Association, the Student Activities Programming Board, the college newspaper, yearbook, literary, and social and political journals. Located in the Center are a multi-purpose ballroom, lounges, a study room, a television room, recreation areas, the college bookstore, a bank, meeting and conference rooms, an information desk, a print shop, a restaurant, a snack bar, a sweet shop and Billy Pat's Pub. The Student Center also houses the Student Activities Office, the Office of Campus Ministry and the Office of Auxiliary Services.

Student Government Association

The Student Government Association (SGA) is an organization of students headed by four elected officers from the full-time student body to protect and advance student rights. All full-time students, upon payment of the student activity fee, are members of the association. It is also responsible for chartering and funding more than 60 campus organizations, which are divided into the categories of service, special, cultural and academic interest.

The Legislature appoints the student trustees to the Student Cooperative Association, Inc. which is charged with monitoring the collection and disbursement of the student activity and athletic fees.

The SGA employs a full-time teacher/director for the Child Care Center that cares for the children of WPC students while they are attending classes.

Additionally, the SGA retains the services of a professional attorney, who offers free consultation to students during weekly visits.

Part-Time Student Council

Every part-time student who attends day or evening classes, including graduate students, is a member of the Part-Time Student Council and is eligible to be a delegate on the governing board. The Part-Time Student Council plans and implements activities for its constituents and provides a forum for an exchange of views. Information regarding P.T.S.C. may be obtained in the Student Activities Office.

Student Activities Programming Board

The SAPB promotes diversified social, cultural, recreational and service activities for the greater/extended WPC college community. The Board is sanctioned by the Student Government Association and is solely dependent on student input. Membership is open to all interested students.

The Board is composed of the following nine committees, each sponsoring activities in its particular area: Cinema, concerts, creative arts, entertainment, lectures, public relations, publicity, recreation and student services.

Alcohol Review Board

The ARB is charged with overseeing responsible use/consumption of alcoholic beverages on the WPC campus. Representatives are elected from students, faculty and administration. The Alcohol Control Committee reports to the ARB.

Musical Organizations

Students may participate in many musical groups, including College Choir, Women's Choral Ensemble, Chamber Singers, and College Chorus (all open to all men and women students.)

Performing instrumental groups include guitar, Latin, big band, avant garde and a number of small ensembles, including jazz and brass.

Intercollegiate Athletics

William Paterson College is a member of the highly competitive New Jersey State Athletic Conference, the Eastern Collegiate Athletic Conference, National Collegiate Athletic Association, Jersey Athletic Conference and the Eastern Intercollegiate Athletic Association. All teams are Division III and offer no athletic scholarships.

The College offers nine intercollegiate varsity sports for men and nine for women. In addition to these, there are two co-ed sports, equestrian and dance, with ice hockey, ski racing, wrestling and men's tennis organized on a club basis.

Men's varsity sports include baseball, basketball, cross country, fencing, football, golf, soccer, swimming and track. Women's varsity sports include basketball, cross country, fencing, field hockey, softball, swimming, tennis, track and volleyball.

Honor Societies

The College sponsors a number of honor societies in various disciplines. They are:

Alpha Phi Gamma (Delta Chi Chapter):

journalism and communications

Omicron Delta Epsilon: economics

Phi Alpha Theta (Theta Alpha Chapter):
history

Kappa Delta Pi (Zeta Alpha Chapter):
education

Pi Lambda Theta (Beta Chi Chapter):
Women in education

Alpha Kappa Delta (Gamma Chapter):
sociology

Nursing Honor Society: nursing

Campus Ministry

In recognition of the various religious backgrounds present in the college community, clergy from the major faiths are on campus for counseling.

Inter-Fraternity/Sorority Council

The IFSC is the umbrella organization for social fraternities and sororities at WPC. It sponsors campus-wide events and champions social responsibility among its member organizations.

Campus Clubs and Organizations

Chartered by the SGA, membership in all student clubs is open to all William Paterson College students regardless of race, religion, sex or national origin.

Club meetings are announced weekly in the *Beacon* and club officers may be contacted by mail through the Student Government Office in the Student Center.

Service Clubs

The *Beacon*, the weekly college newspaper published by students whose aim is to present and interpret news of college activities and to serve as a medium for the expression of student opinion, has several times been awarded first place in the college division of the Columbia Scholastic Press contest.

Helpline (201) 956-1600—A volunteer student service designed to answer the particular kinds of questions college students have about themselves and the College. These questions can be of an intensely personal nature, such as drug or alcohol dependence or sexual matters, or about registration, financial aid, or courses. As with the Drop-In Center, complete confidentiality is guaranteed.

Helpline's Drop-In Center—Trained students provide counseling for all students. The Helpline is open from 12 to 5 p.m. and from 7 to 11 p.m. Monday through Friday and from 7 to 11 p.m. on Saturday.

Pioneer Yearbook—A college annual which provides an overall pictorial and editorial record of the activities of the college year and senior class.

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, located in Hobart Hall, is also carried on UA Columbia Cablevision Channel 3.

Women's Collective—Women from the college community seek 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 and to accomplish consciousness-raising.

Activities, functions, and services include a gynecological clinic, consciousness-raising groups, peer and career counseling, academic advisement, women's studies courses, lectures and poetry readings, as well as an annual conference.

Active Chartered Clubs

Accounting Club

Art Education Association

Ba ha'i Club

Black/Hispanic Broadcasters Club

Black Student Association

Business Students Association

Campus Ministry Club

Chess Club

Chinese Club

Christian Fellowship Club

Circassian-Turkish Club

Computer Club of WPC

Creative Source Dance Company

Cultural Italian-American Organization

Early Childhood Organization

English Club

Equestrian Team

Essence Magazine

Forensic Club

French Club

Galen Society

Geography Club

German Club

Health Majors Organization

History Club

Ice Hockey Club

Inter-Fraternity/Sorority Council

International Students Association

Intramurals

Irish Club

Jewish Students Association

Marching Band/Color Guard

Mathematics Club

Men's Tennis Club

Music Students Association

Natural Science Club

Nursing Club

Organization for Latin-American Students

Physical Education Club

Pioneer Players

Political Science Club

Psychology Club

Resident Hall Association

Ski Club

Ski Racing Team

Social Science Society

Spanish Club

Special Education Club

Speech Pathology Club

Student Art Association

Student Mobilization Committee

Students for Environmental Action

WPC Chemical Society

Alumni Association

Every student who earns a degree from William Paterson College is automatically a member of the Alumni Association. The Association maintains contact with alumni, informs alumni about college developments, produces alumni events and activities, and promotes the interests of the College.

Upon graduation, all alumni receive identification cards, enabling use of many college facilities that were available to them as students. By presenting the alumni card, alumni have access to the pub, athletic facilities, student activities, and library borrowing privileges.

The Alumni Association is financed through an annual fund drive, which solicits contributions from all alumni. The Association's annual phonathon is one of the annual fund drive activities.

The School of the Arts and Communication

Jay Ludwig, Dean

Office: Ben Shahn Center for the Visual Arts 107

The School of the Arts and Communication offers degree programs in art, communication, dramatic arts, liberal studies and music for students interested in professional careers in these disciplines, including teaching, or in developing avocational interests. The school offers a diverse array of liberal studies courses for students who are majoring in other schools of the College.

The school also sponsors exhibits of the works of students and professional artists in the Ben Shahn Gallery; dramatic and musical presentations in Shea Auditorium, Hunziker Hall Theatre and Wayne Recital Hall; and television programs produced at the college studios—all of which are open to the college community and the public.

Liberal Studies Major

Students interested in several disciplines offered by the School of the Arts and Communication, but who do not wish to major in any one of them, may pursue a liberal studies major. With the assistance of an academic advisor, students select a total of 48 credits from at least three of the school's majors, taking no more than 18 credits in any one of them. Successful completion of this program results in a bachelor's degree in liberal studies: School of the Arts and Communication.

Department of Art

Professors—H.B. Leighton, K. Lunde, J. Lynch, L. Paris, R. Reed

Associate Professors—W. Finneran, A. Lazarus (chairman), W. Muir, D. Raymond, G. Schubert, S. Smith

Assistant Professors—D. Haxton, C. Magistro, M. Rothman, J. Ruban, M. Schnur, D. Shapiro

Instructors—J. Brown, C. Huebner, S. Van Tongeren, P. Baffa (half-time), A. Nelson (half-time)

Gallery Director—A. Einreinhofer

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.

For those students who are qualified and desire an in-depth concentration in studio art, the College offers a bachelor of fine arts in design. The objectives of this intense professional curriculum in visual communications are to develop independent thinking and problem-solving abilities, visual aesthetics, professional skills and social and environmental consciousness.

An art major may choose a concentration in art history, ceramics, fibers, furniture design, graphic design, painting, printmaking, photography, metals, jewelry, sculpture and an interdisciplinary concentration in media arts or a combination of the variety of courses available. Graduates of the art program are able to express themselves fluently in their area of concentration and perform competently in their chosen field. Consult the chairman of the department for further information.

MAJOR REQUIREMENTS: 30 credits

STUDIO ART		
ART 160	Graphic Delineation	3
ART 161	Drawing	3
ART 162	Design Fundamentals I	3
ART 163	Color	3
ART 164	Design Fundamentals II	3

Plus a minimum of 15 additional credits of art studio courses.

In addition, 9 credits of art history are required.

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

MAJOR REQUIREMENTS: 78 credits

B.F.A. IN DESIGN

Studio		
ART 160	Graphic Delineation	3
ART 161	Drawing	3
ART 162	Design Fundamentals I	3
ART 163	Color	3
ART 164	Design Fundamentals II	3

Art History		
ART 110	Modern Art I	3
ART 150	History of Design	3
ART 211	Modern Art II	3
ART 291	Western Art I	3
ART 292	Western Art II	3

Design		
ART 241	Production Process: 2 Dimensional Design	3
ART 242	Production Process: 3 Dimensional Design	3

ART 302	Graphic Illustration	3
ART 311	Design Workshop I	3
ART 312	Design Workshop II	3
ART 313	Print and Publications	3
ART 411	Design Workshop III	3
ART 412	Design Workshop IV	3
ART 413	Thesis Project I	3
ART 414	Thesis Project II	3

In addition, any six courses from department offerings by concentration and advisement.

MAJOR REQUIREMENTS: 39 credits

ART HISTORY		
ART 160	Graphic Delineation	3
ART 161	Drawing	3
ART 162	Design Fundamentals I	3
ART 163	Color	3
ART 164	Design Fundamentals II	3
ART 392	Ancient Art	3
ART 396	Baroque and Rococo	3
Plus one of the following:		
ART 393	Medieval Art	3
ART 394	Northern Renaissance Art	3
ART 395	Italian Renaissance Art	3

Plus one of the following:		
ART 140	History of Film	3
ART 150	History of Design	3
ART 211	Modern Art II	3
ART 320	Ideas in Contemporary Art	3

Plus an additional 9 art history credits by advisement 9

Plus one of the following:		
HIST 110	Heritage of the Ancient World	3
HIST 120	Heritage of the Medieval World	3
HIST 130	The Modern World	3
HIST 140	Chinese Civilization	3
HIST 150	Latin American Civilization	3

MINOR REQUIREMENTS: 18 credits

STUDIO ART		
Choose four of the following courses:		
ART 160	Graphic Delineation	3
ART 161	Drawing	3
ART 162	Design Fundamentals I	3
ART 163	Color	3
ART 164	Design Fundamentals II	3

Plus two additional studio elective courses.

Note: It is recommended that a student electing a minor in studio art take at least six credits in art history.

MINOR REQUIREMENTS: 18 credits

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

Plus three additional elective courses in art history 9

Note: It is suggested that a student who wishes to minor in art history also elect six credits from among ART 160, 161, 162, 163, 164.

CERTIFICATION REQUIREMENTS 52 credits

Students interested in obtaining certification in art must complete the following:

Academic Content Requirements 9 credits

Choose three courses, one in each of the following groupings:

ART 321	Painting	3
ART 341	Sculpture	3
ART 351	Printmaking	3
ART 371	Photography	3
ART 335	Weaving	3
ART 339	Metalsmithing	3
ART 361	Ceramics	3

Note: The Art Department recommends that a student build his major areas beyond minimum requirements. Students who pursue a concentration are assisted and guided in the selection of courses by academic advisors in the Art Department.

THE SCHOOL OF THE ARTS AND COMMUNICATION

Secondary Education (K-12) 43 credits Requirements

HSC	120	Current Health Issues	3
PSY	110	General Psychology	3
PSY	210	Developmental Psychology	3
SED	340	Exploring the Teaching Field (A Pre-Student Teaching Requirement)	1
SED	302	Discovering Your Teaching Self (K-12)	3
RLA	329	Foundations of Reading	3
RLA	330	Reading Strategies for Content Areas	3
EDUC	403	Culminating Field Experience	8
SED	404	Instructional Seminar for Student Teaching	1
SED	326	Art, Children and Learning Vitality	3
SED	327	Art Education in the Secondary School	3
FASE	405	Art Education in the Elementary School	3
Plus one human relations course from the following:			
SED	381	Educational Sociology	3
SED	391	Challenge, Change, and Commitment in Education	3
SED	432	Human Adaptations and Alternatives in the School	3
URED	482	The Inner City Child and His Environment	3
Plus one professional preparation course from the following:			
SED	329	The Competencies of Open Education	3
SED	342	Ecology for Educators	3
SED	380	Insights and Outlooks in Education	3
SED	428	Simulated Laboratory Experiences in Secondary Schools	3
SED	430	Teaching Literature to Adults; Grades 5-12	3
SED	480	Field Research in Teacher Education	3
LSM	323	Modern Educational Media	3

Courses

All courses are for 3 credits, unless otherwise noted.

ART 110 Modern Art I (lecture)

A study of the history of art from the French Revolution through the nineteenth century; includes various movements of the early twentieth century. Emphasizes the developments of major schools and styles, as well as significant individual contributions.

ART 130 World Art (lecture)

A survey course for non-art majors. Selected major periods in art history and specific major movements and artists. Introduces arts of painting, sculpture and architecture; develops visual sensitivity and makes the vocabulary of art history meaningful.

ART 140 History of Film (lecture)

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 150 History of Design (lecture)

A detailed view of the evolution of design as an influencing factor in contemporary society. Traces the history of design from the industrial revolution to the present.

ART 160 Graphic Delineation (studio)

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 required.

ART 161 Drawing (studio)

Study of the fundamentals of drawing. Work with various media to develop a firm basis for the comprehensive and visual articulation of form. Outside assignments required.

ART 162 Design Fundamentals I (studio)

Studies in the ordering and structuring of 2-dimensional space. The student conceives and executes problems which involve the elements of art and their varied interrelations to develop aesthetic judgment and sensitivity. Outside assignments required.

ART 163 Color (studio)

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 required.

ART 164 Design Fundamentals II (studio)

Design as it applies to 3-dimensional forms. Skill in handling tools and various sculptural materials is stressed, as is the interrelationship with 2-dimensional design. Outside assignments required.

ART 170 Art in New York (lecture)

Explores New York City as the international center for the visual arts. Students tour major and less familiar museums and landmarks of architectural importance.

ART 211 Modern Art II (lecture)

A study of American and European painting, architecture and sculpture from about 1910 through 1960.

ART 231 Gallery Workshop I (studio)

The procedures and problems of mounting exhibitions and conventional and alternatives spaces with emphasis on details of preparation and installation.
4 credits

ART 232 Modern European Film (lecture)

A survey of the major European films and their aesthetic, social and technical importance from World War II to the present. Prerequisite: ART 140

ART 233 History of Non-Fiction Film (lecture)

The history of the so-called documentary cinema. Covers cinema from the political, historical, social, governmental, industrial and propaganda fields. Includes the development of documentary film from its beginning in the early twentieth century to the present. Emphasizes non-fiction film from Western Europe, Russia, Great Britain and America. Prerequisite: ART 140

ART 234 Art and Film (lecture)

The study of film as a non-narrative medium. Emphasizes the history of the independent film. Recent films and video tapes by artists serve as a basis for production of film by the students in class.

ART 241 Production Process 2-D (studio)

A technical workshop in techniques for design presentation. Exploration of materials, procedures, resources and technology, used as a creative approach in student's project. Prerequisites: ART 162 and 164

ART 242 Production Process: 3-D (studio)

Theoretical and studio investigation of 3-dimensional structural principles as they relate to the areas of packaging, exhibition, interior and environmental design. Prerequisites: ART 162 and 164

ART 291 Western Art I (lecture)

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 (lecture)

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 300 History of Photography (lecture)

A study of photography, beginning with the camera obscura to the present day. Investigations of the aesthetic, social and technical ingredients contributing to its development. Contributions of important photographers and inventors from Europe and America are analyzed and discussed. Prerequisites: ART 110, 211

ART 301 Life Drawing (studio)

A developmental approach; a series of drawing exercises with emphasis on the human figure and the plastic articulation of its construction in a variety of media. Outside assignments required. Prerequisite: ART 161

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ART 302: Graphic Illustration (studio)

An in-depth study of the communicative aspects of illustration. Explores illustration as a tool to communicate objective information and to develop personal creative skills. Prerequisite: ART 301

ART 303 Greek and Roman Art (lecture)

A study of the classical foundation of Western art, i.e., the architecture, sculpture and painting produced by the Aegean, Greek, Etruscan and Roman civilizations between 1500 B.C. and 300 A.D. Major themes: the interrelationships of art, religion and the state in the ancient world and the arts of Greece and Rome as the cultural heritage of the West.

Prerequisite: 1 course in art history

ART 311 Design Workshop I (studio)

An introduction to the graphic profession providing students with the basic working knowledge of techniques and vocabulary. Explores typography, mechanical production, basic lettering and type rendering.

Prerequisites: ART 160, 162, 164

ART 312 Design Workshop II (studio)

An intermediate course for students planning a career in graphic design. Projects involve the integration of typography, color and illustration within a communicative design. Students are encouraged to proceed from detailed analysis of a problem to an inventive solution and an effective visual presentation of this solution.

Prerequisite: ART 311

ART 313 Print and Publication (studio)

Introduction to the design and publication of books, magazines, catalogues, etc. Examines theory, styles, trends and mechanics of cover and interior design, typographics, printing and the development of a personal creative approach.

Prerequisite: ART 311

ART 314 Art Direction for T.V. Commercials (studio)

Introduces the art student to the principles of art direction and production of television commercials and short information spots as they apply to advertising design.

Prerequisite: ART 162

ART 320 Ideas in Contemporary Art (lecture)

Explores the numerous relationships between the visual arts and contemporary society in its broadest sense. A study of the visual arts as pragmatic phenomena in our increasingly vague, dehumanizing social technological culture.

ART 321 Painting (studio)

The principles of painting through a series of visual problems. The student gains an understanding of pictorial space through control of paint, drawing value and color. Introduction to a variety of technical processes and media. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 323 Watercolor (studio)

Explores all watercolor media and techniques. Emphasizes the development of imaginative design and an individual point of view. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 324 Experiments in Color (studio)

A sequence of related problems expands concepts introduced in the color course, further emphasizing the relativity of color and its organizations. Experimentation is combined with special emphasis on collage as an art form in itself and its relationships to aspects of painting, illustration, graphic design and photography.

Prerequisite: ART 163

ART 331 Advanced Gallery Workshop (studio)

The procedures and problems of curating exhibitions, writing catalogs. Visits to artists' studios and various galleries. May be repeated once for credit.

Prerequisite: ART 231

ART 333 Textile Design (studio)

The creation and application of design to textiles by various techniques including block print, silk screen and batik. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 335 Weaving (studio)

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.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 337 Jewelry (studio)

The design and fabrication of jewelry in silver and other metals by construction and casting techniques. Also projects in enameling and stone setting. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 338 Modern Architecture (lecture)

A comprehensive survey of the major architectural monuments from the end of the eighteenth century to the present; the architects and the philosophies that motivated them.

ART 339 Metalsmithing (studio)

The design and execution of holloware in copper and sterling silver sheetmetals using hand-forming techniques for forging, raising and stretching. Projects in masonite die. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 341 Sculpture (studio)

An introductory course in sculpture using a variety of materials and techniques to create 3-dimensional forms. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 351 Printmaking (studio)

Introduction to printmaking involving relief, intaglio and silkscreen techniques. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 361 Ceramics (studio)

Physical properties of clay and methods of hand-construction and wheelthrowing. Complete processing through firing and glazing. Outside assignments required.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 363 Furniture Design (studio)

The investigation of beginning wood studio techniques involving basic joinery and fabrication of furniture. Concepts of planning and execution of the student's individual point of view.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 371 Photography (studio)

Experiences in the use of the camera, basic developing of black and white film, printing, enlarging, toning and experimental photography. Experimental photography as a means of visual expression. Major emphasis on creativity and design. Outside assignments required.

Prerequisite: ART 162

ART 373 Studio Photography (studio)

A studio course for the student having a firm grasp of black and white photographic and darkroom skills. Covers aspects of artificial light and commercial studio techniques in portraiture, still life, fashion and interior photography using the hand and view camera.

Prerequisite: ART 371

ART 374 Color Photography (studio)

Experiences in basic techniques of developing color film, printing, enlarging, toning; also experimental photography as an art form. Outside assignments required.

Prerequisite: ART 371

ART 392 Ancient Art (lecture)

The development of sculpture, painting and architecture from the prehistoric period through the Near Eastern, Egyptian and Greek civilizations, culminating in Roman art. Emphasis 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 is stressed. The basic theme is the close relationships in ancient cultures among the arts, religion and the state.

Prerequisite: 1 course in art history

ART 394 Northern Renaissance Art

(lecture)

An examination of painting, sculpture and the graphic media in Germany, the Netherlands, France and Spain, from approximately 1325 to 1550. Topics 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.

Prerequisite: 1 course in art history

ART 395 Italian Renaissance Art

(lecture)
A study of a period of great rebirth in the visual arts in Italy from 1300 to 1600 and its significance to our cultural heritage.

Prerequisite: 1 course in art history

ART 396 Baroque and Rococo

(lecture)
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 the masters.

Prerequisite: 1 course in art history

ART 398 Oriental Art

(lecture)
Survey of the arts of India, China and Japan presented in their historical and cultural context.

Prerequisite: 1 course in art history

ART 401 Advanced Drawing

Problems of the student's own choice in various media; to develop fluency in drawing. Outside assignments required. May be repeated once for credit.

Prerequisite: ART 161

ART 411 Design Workshop III

(studio)
Introduces the student to the experimental investigation between design and technology in the area of graphic arts. Provides the student with the technical training of the printer and the art-oriented training of the graphic designer. Introduces the student to printing processes, typefaces, plate making, copy camera, photo serigraphy and paper stocks.

Prerequisites: ART 311, 312

ART 412 Design Workshop IV

(studio)
Students expand their skills and understanding of lettering, type rendering and page layout through a variety of problems in editorial design. Class research projects require students to study in detail one problem of visual communication. Students present their research as a class.

Prerequisite: ART 411

ART 413 Thesis Project I

(studio)
Senior-level course. In-depth investigation of the theoretical aspects of the design process within the context of designing effective visual communications. A complete portfolio representation required for a successful completion of Thesis Project I and Thesis Project II.

Prerequisite: ART 412

ART 414 Thesis Project II

(studio)
Senior-level course. Continuation of ART 413. Critical analysis of student portfolio with emphasis on personal assessments of philosophies and goals.

Prerequisite: ART 413

ART 416 Introduction to Art Therapy

(studio)

A survey of the basic conceptual foundations of art therapy. Emphasis on the major theories of various practitioners, such as Naumburg and Kramer, and discussion of various schools including present-day developments such as Gestalt art therapy. The distinctions between diagnostic and therapeutic applications of art therapy are drawn.

Prerequisite: ART 160, 161, 162, 163 or 164

ART 421 Advanced Painting

(studio)
Principles of painting with increased emphasis on the student's selection of problems and media. Outside assignments required. May be repeated once for credit.

Prerequisite: ART 321

ART 422 Thesis Painting I

(studio)
Senior-level course. An in-depth personal investigation of various media and theoretical aspect of painting. A complete portfolio presentation required for successful completion of Thesis Painting I and II.

Prerequisite: ART 421

ART 423 Thesis Painting II

(studio)
Senior-level course. Continuation of ART 422. Critical analysis of student's painting portfolio with personal assessments of philosophies and goals.

Prerequisite: ART 422

ART 428 Advanced Weaving

(studio)
Advanced techniques in weaving and pattern drafting. Related problems in design. Further experience in sample warps in yardage weaving. Outside assignments required. May be repeated once for credit.

Prerequisite: ART 335

ART 429 Thesis Weaving I

(studio)
Senior-level course. Advanced techniques in weaving. Technique previously introduced may be elected for personal development. A complete presentation of the student's textiles and weaving portfolio required for completion of Thesis Weaving I and II.

Prerequisite: ART 428

ART 430 Thesis Weaving II

(studio)
Senior-level course; continuation of ART 429. Critical analysis of student's weaving portfolio with emphasis on personal assessments of philosophies and goals.

Prerequisite: ART 429

ART 431 Advanced Metalsmithing

(studio)

Concentration in jewelry or metalsmithing design and fabrication using a variety of techniques which may include construction, casting, forging, raising, stretching, masonite die, enameling, chainmaking and lapidary. Outside assignments required. May be repeated once for credit.

Prerequisites: ART 337, 339

ART 433 Advanced Textile Design

(studio)
Use of various dyes and dyepaste formulations. Combination of techniques with the given problem. Printing on a variety of materials including silk, linen, wool, velvet, etc. Outside assignments required. May be repeated once for credit.

Prerequisite: ART 333

ART 434 Handweaving and Tapestry

(studio)

Introduction to off-loom weaving including tapestry and pile weave techniques. Fundamentals of basketry, involving coiling, twining and plating. Outside assignments required.

Prerequisite: ART 162

ART 435 Thesis Textile Design I

(studio)
Senior-level course. In-depth investigation of the theoretical and pragmatic aspects of the textile design process. A complete design portfolio presentation required for the successful completion of Thesis Textile Design I and II.

Prerequisite: ART 433

ART 436 Thesis Textile Design II

(studio)
Senior-level course. Continuation of ART 435. Critical analysis of student's portfolio with emphasis on personal assessment of philosophies and goals.

Prerequisite: ART 435

ART 438 Advanced Jewelry

(studio)
The design and fabrication of jewelry using various construction or casting and metals techniques. Emphasis on the development of imaginative design and individual point of view. May be repeated once for credit.

Prerequisite: ART 337

ART 439 Thesis Jewelry I

(studio)
Senior-level course. The refinement of acquired knowledge in design and the execution of more advanced techniques. A complete portfolio presentation required for successful completion of Thesis Jewelry I and II.

Prerequisite: ART 438

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ART 440 Thesis Jewelry II (studio)

Senior-level course. Continuation of ART 439. Critical analysis of student's portfolio with emphasis on personal assessment of philosophies and goals.
Prerequisite: ART 439

ART 441 Advanced Sculpture (studio)

Exploratory course in 3-dimensional materials and techniques including welding, casting, plastics and other fabrication techniques. Outside assignments required. May be repeated once for credit.
Prerequisite: ART 341

ART 442 Thesis Sculpture I (studio)

Senior-level course. Problems of student's own choice. Possible combination of various media and techniques. A complete portfolio presentation required for successful completion of **Thesis Sculpture I** and **II**.
Prerequisite: ART 441

ART 443 Thesis Sculpture II (studio)

Senior-level course. Continuation of ART 442. Critical analysis of student's portfolio with emphasis on personal assessment of philosophies and goals.
Prerequisite: ART 442

ART 451 Advanced Printmaking (studio)

Continued development of student's selected techniques. Advanced intaglio, lithography, relief, silk screen and experimental techniques. Emphasis on color printing as well as black and white. Other options available, depending on background and interest. Outside assignments required. May be repeated once for credit.
Prerequisite: ART 351

ART 452 Thesis Printmaking I (studio)

Senior-level course. An in-depth investigation of theoretical and creative aspects of printmaking as a visual art. A complete portfolio presentation required for successful completion of **Thesis Printmaking I** and **II**.
Prerequisite: ART 451

ART 453 Thesis Printmaking II (studio)

Senior-level course. Continuation of ART 452. Critical analysis of student's portfolio with emphasis on personal assessment of philosophies and goals.
Prerequisite: ART 452

ART 461 Advanced Ceramics (studio)

Studies in the creative possibilities of clay as a plastic medium. Emphasis on the development of the individual craftsman. Outside assignments required. May be repeated once for credit.
Prerequisite: ART 361

ART 462 Thesis Ceramics I (studio)

Senior-level course. Advanced work in the development of the student's aesthetic and technical skills with experimental projects in glazes, throwing and building techniques. A complete portfolio presentation required for successful completion of **Thesis Ceramics I** and **II**.
Prerequisite: ART 461

ART 463 Thesis Ceramics II (studio)

Senior-level course. Continuation of ART 462. Critical analysis of student's portfolio with emphasis on personal assessment of philosophies and goals.
Prerequisite: ART 462

ART 464 Advanced Furniture Design (studio)

A study of the technology of varied materials and the application of those materials to experimental utilitarian design. Creative use of materials and design forms stressed. Outside assignments required. May be repeated once for credit.
Prerequisite: ART 363

ART 465 Thesis Furniture Design I (studio)

Senior-level course. An in-depth investigation of the theoretical aspects of the interior and furniture-design process. A complete portfolio presentation required for the successful completion of **Thesis Furniture Design I** and **II**.
Prerequisite: ART 464

ART 466 Thesis Furniture Design II (studio)

Senior-level course. Continuation of ART 465. Critical analysis of student's portfolio with emphasis on personal assessment of philosophies and goals.
Prerequisite: ART 465

ART 472 Advanced Photography (studio)

Each student develops his own area of interest through consultation with the instructor. Course allows the student to pursue various aspects of photography as a visual art form in depth. Outside assignments required. May be repeated once for credit.
Prerequisite: ART 371

ART 473 Thesis Photography I (studio)

Senior-level course. In-depth investigation of the theoretical aspects of the photography process within the context of creative visual communications. A complete portfolio presentation required for the successful completion of **Thesis Photography I** and **II**.
Prerequisite: ART 472

ART 474 Thesis Photography II (studio)

Senior-level course. Continuation of ART 473. Critical analysis of student's portfolio with emphasis on personal assessment of philosophies and goals.
Prerequisite: ART 473

ART 480 Studio Seminar (studio)

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 (lecture)

An in-depth study of painting, decorative arts and architecture within their cultural contexts in countries whose art forms were influenced by the Muslim religion. Emphasis on Iran. Other countries include Egypt, Spain, Turkey, Iraq, Syria and India, from the founding of Islam in the seventh century through the seventeenth century.
Prerequisite: 3 credits in art history

ART 491 The Age of Neo-Classicism (lecture)

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 counter movements, innovation and nostalgia for the past, reforms, overthrow and revival; the concept of romanticism and neo-classicism are shown to be shifting and constantly changing.
Prerequisite: 3 credits in art history

ART 493 Masterpieces of the Illuminated Manuscript (lecture)

A study of manuscript illumination from the fifth century through the humanist sixteenth-century manuscripts of Italy. Special emphasis on 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.
Prerequisite: 3 credits in art history

ART 494 Byzantine Art (lecture)

A study of architecture, painting and sculpture in the Eastern Mediterranean, the Balkans and Italy from 315 to 1453 A.D. Byzantine art is interpreted as one of the preservers of the Greco-Roman heritage, an expression of a Christian imperial state and a model for Western European art during the middle ages.
Prerequisite: 1 course in art history

ART 499 Independent Study

As approved and to be arranged.
1-3 credits.

Department of Communication

Professor—A. Malfese (chairman)

Associate Professors—S. Beriman, U. Bonsignori, T. Klos, A. Lenrow

Assistant Professors—J. Chamberlain, P. Del Colle, D. Evans, M. Gamble, F. Gillooley, H. Jackson, B. Morganstern, S. Shoge, R. Smiley

The Department of Communication 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 take courses in theory and 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 genres and potential uses, in an effort to contribute to a student's development 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 is open to communication majors. These include careers in journalism, including newspapers, magazines, radio news and television news; radio television production, including announcing and station management; films, including filmmaking, editing and criticism; and a variety of business, government, public and educational occupations such as public relations, personnel work, sales and supervision training, etc. The major also provides an excellent undergraduate background for students intending to pursue advanced degrees in law, business and areas of public service, government, or education.

MAJOR REQUIREMENTS 30 credits

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

Plus two of the following courses:

COMM 220	Radio and Television	3
COMM 234	Film as Medium	3
COMM 250	Journalism	3

COMM 260	Oral Interpretation	3
or		
COMM 266	Dynamics of Communication	3

The remaining 15 credits are to be chosen from among offerings of the department with a catalog number of 200 or above.

CERTIFICATION REQUIREMENTS (K-12) 61 credits

Students interested in obtaining teacher certification* in speech and dramatic arts must complete 61 credits as follows:

COMM 260	Oral Interpretation	3
COMM 265	Foundations of Language	3

COMM 266	Dynamics of Communications	3
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or		
COMM 363	Public Speaking	3

THEA 161	Acting: Principles of Characterization	3
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THEA 162	Stagecraft I	3
PATH 364	Voice and Speech Production	3

One of the three following theatre courses:

THEA 210	Playscripts I	3
THEA 260	Playscripts II	3
THEA 310	History of Theatre	3

PSY 110	General Psychology	3
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HSC 120	Current Health Problems	3
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TED 310	Educational Psychology: Adaptations and Interventions in the Classroom	3
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SED 340	Exploring the Teaching Field (A pre-student teaching requirement)	1
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SED 302	Discovering Your Teaching Self (K-12)	3
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RLA 329	Foundations of Reading	3
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RLA 330	Reading Strategies for the Content Areas	3
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SED 301	Curriculum and Its Implementation	3
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SED 330	Implementing Your Teaching Major (K-12)	3
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EDUC 403	Culminating Field Experience (formerly Student Teaching)	8
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SED 404	Instructional Seminar for Student Teaching	1
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Plus one course from the human relations area:

SED 381	Educational Sociology	3
SED 391	Challenge, Change and Commitment in Education	3

SED 432	Human Adaptations and Alternatives in the School	3
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URED 482	The Inner City Child and His Environment	3
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Plus one course from the professional preparation area:

LMS 323	Modern Educational Media	3
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SED 329	The Competencies of Open Education	3
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SED 342	Ecology for Educators	3
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SED 380	Insights and Outlooks in Education	3
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SED 428	Simulated Laboratory Experiences in Secondary Schools	3
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SED 430	Teaching Literature to Young Adults: Grades 5-12	3
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SED 480	Field Research in Teacher Education	3
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*Communication majors interested in teaching are advised, for placement purposes, to take a minor in English, plus a course in linguistics.

Courses

Unless otherwise noted, all courses are for 3 credits.

COMM 110 Communication in Action

A study of oral communication as an interpersonal and dynamic process. An analysis of each student's oral abilities. Students engage in communication experiences designed to develop understanding of and skill in interpersonal communication.

COMM 120 Mass Communication

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

An introductory course tracing the historical development and implications of the media. The student is introduced to programming materials, criticisms, standards, skills and production methods. Prerequisite: COMM 120

COMM 221 Introduction to Communication Theory

Acquaints the student with contemporary theory and research in the field of communication. Motivation, interaction and effects of communication are 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

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 is an important part of content. Prerequisite: COMM 120

COMM 225 Audio Production

Examines the audio aesthetics of sound production. Analyzes the creative responsibilities involved in the elements of sound production. Students are trained in the use of studio and remote audio equipment. Practice in writing, producing, directing and performing in audio productions.

COMM 230 Filmmaking I

A study of film-making techniques from the writing of the script to the final product. Technical and theoretical aspects of film-making are covered in a workshop where students learn through actual production. Work includes writing, directing, cinematography, sound and editing. Aesthetics and evaluation of films are introduced through the viewing and discussion of certain classical examples.

COMM 234 Film as Medium

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.

Prerequisite: COMM 120

COMM 250 Journalism

Practical experience in gathering news and writing the basic journalistic forms. Includes 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.

Prerequisites: COMM 120; ENG 110

COMM 260 Oral Interpretation

Students learn to communicate the content, form and mood of works of literature through the medium of oral reading. Includes expository, narrative and dramatic prose and narrative, dramatic and lyric poetry.

Prerequisite: COMM 100 or permission of the instructor

COMM 265 Foundations of Language

Presents an overview of the nature and function of language. Stresses the aspects of language relating to the phonologic, semantic and linguistic structures.

COMM 266 Dynamics of Communication

A study of the meaning of verbal and non-verbal languages and the influence of these languages as tools for communication.

Prerequisite: COMM 110

COMM 321 Announcing

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.

Prerequisite: COMM 260

COMM 322 Advanced Announcing

An in-depth treatment of the field. Heavy emphasis on narration for television and film. Extended work in the production of news and disc jockey programs, using broadcast-level facilities.

Prerequisite: COMM 321

COMM 323 Television Production

Practice in writing, producing, directing, performing and crewing television productions and videotape materials. Provides the opportunity to study and practice broadcast program creation under laboratory circumstances which simulate the conditions of on-the-air television broadcasting.

Prerequisite: COMM 225

COMM 324 Writing for Radio and Television

The technique of writing dramatic and non-dramatic material for radio and television. Theory, practice and analysis of broadcast material, advertising and continuity are emphasized. Designed to develop skill in expository, narrative and persuasive writing as it relates to broadcasting.

Prerequisite: ENG 110

COMM 326 Advanced Television Production

Provides an opportunity to work within standards and operating procedures similar to those utilized by commercial and educational television. Includes practice and projects in such critical areas as timing, electronic editing, minor equipment maintenance and color programming.

Prerequisite: COMM 323

COMM 331 Filmmaking II

The theory and technique of motion picture production with lip-sync-sound in Super 8 and 16 mm film. Different approaches in scriptwriting, 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 budgeting and shooting with Super 8 and 16 mm film with double system syncsound.

Prerequisite: COMM 230

COMM 332 Documentary Film Production

An intensive laboratory course in film production. Covers documentary techniques: research, scheme of project, storyline, plan of operation, choice of locations and people to interview. Covers problems and concerns in selection of equipment, crew, lighting on location, screening, narration and editing. Special emphasis on audio and optical effects.

Prerequisite: COMM 331

COMM 333 Film Animation I

An introductory study of the history, theory and technique of animated film production. Emphasis is on the process of the production, rather than on a final product.

COMM 334 Film Animation II

An advanced study of the techniques of animated film production. Each student completes an animated film.

Prerequisite: COMM 333

COMM 348 Public Relations

Defines the functions of public relations and distinguishes it from regular journalism. While exploring the appropriate functions and outlets for public relations activity, the course also investigates the ethics of the function and develops an understanding of the basic tools used in handling public relations for various types of situations.

COMM 349 Radio News

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.

Prerequisite: COMM 250

COMM 350 Television News

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.

Prerequisites: COMM 250, 323

COMM 351 Advanced Reporting

Guides students in developing in-depth news and feature articles. Evaluation of individual's work. Matters of current concern to the news media are discussed.

Prerequisite: COMM 250

COMM 352 Broadcast Advertising

Introduces the student to the development and philosophy of broadcast advertising. Theory and practice of commercial advertising techniques are covered. Emphasizes the nature of the creative process and the relationship existing among client, broadcaster and the government.

Prerequisites: ENG 110, COMM 220

COMM 361 Successful Business and Professional Communication

Through the study of communication theory, as it relates to business and the professions, and through practice simulations, the student acquires a knowledge of those communicative and motivational skills essential for success in business and professional life.

Prerequisite: COMM 260 or permission of the instructor

COMM 363 Public Speaking

Students learn the theory and skills of preparing and presenting public speeches. Emphasis is on practice and criticism of classroom speaking experiences.

COMM 365 Introduction to Rhetoric

An examination of the development of persuasion. Emphasizes classical and contemporary theories of rhetoric which are correlated to contemporary standards and practice in current public address.

COMM 421 Broadcast Management

An appraisal of management problems in commercial broadcasting for the advanced student. Includes sales and profit, personnel, programming, audience, governmental regulations and technical factors.

Prerequisite: COMM 220

COMM 423 International Broadcasting Systems

A comparative study of the national and international broadcasting systems of the world. Regional broadcasting systems and the structure and operations of present communications satellite systems.

Prerequisite: COMM 220

COMM 425 Television Workshop

An extension of COMM 326. Students 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.

Prerequisite: COMM 326

COMM 431 Screenwriting

Provides opportunities for original student work or adaptations in screenwriting. 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.

Prerequisite: ENG 110

COMM 432 Dramatic Film Production

Includes writing the storyline from an original subject or adaption, film treatment, shooting, script, casting, selection of crew and equipment, function of the dialogue director, improvisation cinema, verité style, the function of the art director, lighting, film directing, film acting and editing a dramatic film.

Prerequisite: COMM 331

COMM 434 Current Cinema

Introduces the aesthetic and technical appreciation of contemporary motion pictures. Concentrates on content, production, development, stylistic analysis and the development of critical analysis as applied to current films.

Prerequisite: COMM 234

COMM 437 Film Editing

The study of the art and 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.

Prerequisite: COMM 331

COMM 444 Colloquium in Communication

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 chooses an area of communication in which to plan and carry out a research project.

For senior communication majors only.

COMM 451 Free-Lance Writing (Non-Fiction)

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's been written.

Prerequisite: COMM 250

COMM 454 News Editing

Prepares students to function as copy editors in the news field. Supervised practice in editing news copy and writing headlines. Use of visual materials and layout of pages. Analysis of various U.S. newspapers.

Prerequisite: COMM 250

COMM 459 Journalism Field Studies

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

The nature and law of public affairs on federal, state, and local levels. The rights of working reporters and the public to matters of legitimate record are outlined, as are the practical steps necessary to gather this information.

COMM 463 Group Discussion

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.

Prerequisite: COMM 110 or permission of the instructor

COMM 464 Debate

The application of the principles of argumentation through debating a selected topic in public and intercollegiate debate formats. Stresses both theory and performance in oral advocacy.

Prerequisite: COMM 110 or permission of the instructor

COMM 499 Independent Study

As approved and to be arranged through the student's department advisor.

1-3 credits

Department of Music

Professors: H. Aitken, J. Anderson, R. DesRoches, D. Fornuto, D. Heier, M. Krivin, R. Latherow (chairman), W. Woodworth
Associate Professors—R. Foley, N. Guptill, G. Kirkpatrick, J. Kresky, J. Weidensaul
Assistant Professors—G. Bouchard, P. Finney, D. Garcia, V. Hill, M. O'Connor, R. Reid

The Music Department offers three degrees: the bachelor of music in jazz studies and performance, 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, and is equivalent to bachelor of music programs elsewhere. These programs are structured to reflect the multifaceted demands on today's and tomorrow's musicians.

All degree programs contain the best of both musical worlds: the flexible, innovative ideas in contemporary music combined with the finest in the traditional. As a result, students pursue a program of study eminently suited to preparing them for a professional life in music.

Auditions

A performance audition is required of all applicants to the B.A. in applied music, the B.M. in jazz studies and performance and the B.S. in music education. The evaluation by the audition jury consists of a personal interview and examinations in theory, keyboard and aural skills.

Entrance Requirements: Applied Music

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 included.

Organ: Student must have a piano background of Bach two-part inventions and early Mozart or Beethoven sonatas. It is desirable for the student to play a composition of Bach, a romantic work and a modern work.

Voice: Demonstration of vocal potential. One art song in any language, memorized. A second song is strongly recommended.

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 étude 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, Millan, etc.), Baroque (Bach, Weiss, etc.), or Romantic Spanish (Tarrega, ex. Adelita; Liebet, ex. "El Testament D'Amelia").

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 need not take four semesters of Functional Class Piano.

Entrance Requirements: Jazz (for freshmen)

Piano and Guitar

Major, minor and chromatic scales, 4 octaves (guitar, 2 octaves).

Dorian, Mixolydian, Lydian modes.

Basic 6th and 7th chords: Major and minor 6th and 7th; dom. 7th; min. 7th b5; min. with maj. 7th; half dim. 7th; dim 7th; aug. 7th. Sight read lead sheets.

Several jazz standards with improvisation (one slow-tempo ballad and one up-tune). Blues—Several keys (various tempos).

Single Line Instruments

Major, minor and chromatic scales. Dorian, Mixolydian, Lydian modes.

Basic 6th and 7th chords (arpeggiated): Major and minor 6th and 7th; dom. 7th; min. 7th b5; min. with maj. 7th; half dim. 7th; dim. 7th; aug. 7th.

Sight read ensemble parts.

Several jazz or pop standards with improvisation (one slow-tempo ballad and one up-tune).

Blues—Several keys (various tempos).

Vocal

Several pop/jazz standards (one slow-tempo ballad and one up-tune).

Sight reading.

Ear training.

Drums

Several jazz standards with improvisation. (Play through form improvise chorus).

Play time—jazz waltz, bossa, swing, etc.

Break in various meters.

Sight read ensemble parts.

Ear Training (all applicants): Aural identification of intervals, triads and basic 7th chord types (M7, Min. 7, dom. 7th, min. 7th b5, min. with maj. 7th; half dim. 7th; dim. 7th; aug. 7th).

Major Programs

The B.A. degree is 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 two concentrations: 1) applied music, 2) musical studies. Neither of these concentrations certifies the student to teach music in the public schools of New Jersey. Students interested in traditional classical performance should choose the applied music concentration and students who desire a less specialized musical education should choose the musical studies concentration.

APPLIED MUSIC (B.A.) REQUIREMENTS

Required Courses		48 credits
		32 credits
MUS 160	Freshman Comprehensive Musicianship I	3
MUS 161	Freshman Comprehensive Musicianship II	3
MUS 162	Applied Music Major	2
MUS 163	Applied Music Major	2
MUS 180	Freshman Ear Training I	1
MUS 181	Freshman Ear Training II	1
MUS 234	Sophomore Recital Performance	0
MUS 260	Sophomore Comprehensive Musicianship I	3
MUS 261	Sophomore Comprehensive Musicianship II	3
MUS 262	Applied Music Major	2
MUS 263	Applied Music Major	2
MUS 280	Sophomore Ear Training I	1
MUS 281	Sophomore Ear Training II	1
MUS 310	Junior Recital Performance I	0
MUS 311	Junior Recital Performance II	0
MUS 362	Applied Music Major	2
MUS 363	Applied Music Major	2
MUS 462	Applied Music Major	2
MUS 463	Applied Music Major	2
MUS 464	Senior Recital Performance (two semesters)	0

Note: All students in this concentration are required to attend 8 semesters of recital hour. Voice majors must attend 6 semesters of vocal seminar.

Directed Electives 16 credits

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

Note: An entrance audition is required for admission to the applied music major.

MUSICAL STUDIES (B.A.) REQUIREMENTS

Required Courses		32 credits
		20 credits
MUS 160	Freshman Comprehensive Musicianship I	3
MUS 161	Freshman Comprehensive Musicianship II	3
MUS 164	Functional Class Piano I	1
MUS 165	Functional Class Piano II	1
MUS 180	Freshman Ear Training I	1
MUS 181	Freshman Ear Training II	1
MUS 260	Sophomore Comprehensive Musicianship I	3
MUS 261	Sophomore Comprehensive Musicianship II	3
MUS 264	Functional Class Piano III	1
MUS 265	Functional Class Piano IV	1
MUS 280	Sophomore Ear Training I	1
MUS 281	Sophomore Ear Training II	1

THE SCHOOL OF THE ARTS AND COMMUNICATION

Directed Electives	12 credits
MUS 207 Music History and Literature I	3
MUS 208 Music History and Literature II	3
MUS 304 Studies in Music	3
MUS 401 Twentieth Century Music I	3

JAZZ STUDIES AND PERFORMANCE (B.M.) REQUIREMENTS 92 credits

MUS 160 Freshman Comprehensive Musicianship I	3
MUS 161 Freshman Comprehensive Musicianship II	3
MUS 164 Functional Class Piano I†	1
MUS 165 Functional Class Piano II†	1
MUS 180 Freshman Ear Training I	1
MUS 181 Freshman Ear Training II	1
MUS 190 Applied Music Major	4
MUS 191 Applied Music Major	4
MUS 205 Applied Music Minor*	1
MUS 206 Applied Music Minor*	1
MUS 220 Jazz History	3
MUS 234 Sophomore Recital	0
MUS 236 Western Art Music	3
Jazz Performance Groups	8
MUS 237 Jazz Improvisation I	2
MUS 238 Jazz Improvisation II	2
MUS 255 Jazz Harmony	3
MUS 260 Sophomore Comprehensive Musicianship I	3
MUS 261 Sophomore Comprehensive Musicianship II	3
MUS 268 Functional Class Jazz Piano I	1
MUS 269 Functional Class Jazz Piano II	1
MUS 280 Sophomore Ear Training I	1
MUS 281 Sophomore Ear Training II	1
MUS 290 Applied Music Major	4
MUS 291 Applied Music Major	4
MUS 305 Applied Music Minor*	1
MUS 306 Applied Music Minor*	1
MUS 310 Junior Recital Performance I	0
MUS 311 Junior Recital Performance II	0
MUS 322 Jazz Improvisation III	2
MUS 323 Jazz Improvisation IV	2
MUS 368 Functional Class Jazz Piano III	1
MUS 369 Functional Class Jazz Piano IV	1
MUS 390 Applied Music Major	4
MUS 391 Applied Music Major	4
MUS 464 Senior Recital Performance	0
MUS 470 Jazz Arranging	3
MUS 471 Advanced Jazz Arranging	3
MUS 490 Applied Music Major	4
MUS 491 Applied Music Major	4
MUS 495 Jazz/Pop Style and Repertoire	3

*Vocalists and percussionists substitute MUS 205, 206, 305, 306 for MUS 322, 323.
 †Functional Class Piano courses not required for pianists.

Note: Percussionists substitute 8 semesters of rhythm section and/or performance group for improvisation. **Functional Class Piano** not required if piano is principal instrument. Jazz vocal majors substitute piano or guitar minor for improvisation.

MUSIC EDUCATION (B.S.) REQUIREMENTS/N.J. PUBLIC SCHOOLS, K-12 MUSIC CERTIFICATION

Two concentrations are offered in this program. Students admitted as performance majors in keyboard, guitar or voice ordinarily choose the concentration in preparation for teaching vocal/general music in grades K-12.

Students are admitted to the music education programs on a probationary status for the freshman and sophomore years. Full status as a music education major is determined prior to the beginning of the junior year.

Note: Performance majors in keyboard or guitar who want an instrumental concentration must also meet the entrance audition requirements on a band or orchestral instrument outlined on p. 26. Performance majors in keyboard or guitar must meet the entrance requirements for a voice minor, i.e. demonstrate voice potential as a prospective teacher of choral/vocal music in the public schools.

VOCAL CONCENTRATION 61 credits

MUS 101 Flute and Clarinet	1
MUS 103 Trumpet	1
MUS 105 Violin	1
MUS 107 Guitar	1
MUS 108 Percussion	1
MUS 160 Freshman Comprehensive Musicianship I	3
MUS 161 Freshman Comprehensive Musicianship II	3
MUS 162 Applied Music Major	2
MUS 163 Applied Music Major	2
MUS 164 Functional Class Piano I	1
MUS 165 Functional Class Piano II	1
MUS 166 Voice Class I (not required of voice majors)	1
MUS 167 Voice Class II (not required of voice majors)	1
MUS 180 Freshman Ear Training I	1
MUS 181 Freshman Ear Training II	1
MUS 205 Applied Music Minor	1
MUS 206 Applied Music Minor	1
MUS 207 Music History and Literature I	3
MUS 208 Music History and Literature II	3
MUS 234 Sophomore Recital Performance	0
MUS 260 Sophomore Comprehensive Musicianship I	3
MUS 261 Sophomore Comprehensive Musicianship II	3
MUS 262 Applied Music Major	2
MUS 263 Applied Music Major	2
MUS 266 Functional Class Piano-Advanced (or MUS 264)	1
MUS 267 Functional Class Piano-Advanced (or MUS 265)	1
MUS 280 Sophomore Ear Training I	1
MUS 281 Sophomore Ear Training II	1
MUS 301 Form and Analysis	3
MUS 302 Arranging	3
MUS 305 Applied Music Minor	1
MUS 306 Applied Music Minor	1
MUS 307 Basic Conducting	2
MUS 308 Choral Conducting	2
MUS 310 Junior Recital Performance I	0

MUS 311 Junior Recital Performance II	0
MUS 362 Applied Music Major	2
MUS 363 Applied Music Major	2
MUS 462 Applied Music Major	2
MUS 464 Senior Recital Performance	0

Note: All students in this concentration are required to attend 7 semesters of recital hour. Six semesters of vocal seminar are also required of voice majors. **Note:** Students admitted as performance majors in band or orchestral instruments must choose the concentration in instrumental music. This concentration provides for specialization in preparation for teaching instrumental music, grades K-12.

SECONDARY EDUCATION (K-12) REQUIREMENTS 40 credits

PSY 110 General Psychology	3
HSC 120 Current Health Issues	3
PSY 210 Developmental Psychology	3
SED 302 Discovering Your Teaching Self	3
SED 324 Music Education	3
RLA 329 Foundations of Reading	3
RLA 330 Reading Strategies for the Content Areas	3
SED 340 Exploring the Teaching Field (A pre-student teaching requirement)	1
EDUC 403 Culminating Field Experience (formerly Student Teaching)	8
SED 404 Instructional Seminar for Student Teaching	1
FASE 406 Music Education in the Elementary School	3
Plus one course from the human relations area:	
SED 381 Educational Sociology	3
SED 391 Challenge, Change and Commitment in Education	3
SED 432 Human Adaptations and Alternatives in the School	3
URED 482 The Inner City Child and His Environment	3
Plus one course from the professional preparation area:	
SED 329 The Competencies of Open Education	3
SED 342 Ecology for Educators	3
SED 380 Insights and Outlooks in Education	3
SED 428 Simulated Laboratory Experiences in Secondary Schools	3
SED 430 Teaching Literature to Young Adults: Grades 5-12	3
SED 480 Field Research Studies in Teacher Education	3
LMS 323 Modern Educational Media	3

WILLIAM PATERSON COLLEGE

INSTRUMENTAL CONCENTRATION

64 credits

MUS 101	Flute and Clarinet	1
MUS 102	Double Reeds	1
MUS 103	Trumpet	1
MUS 104	Low Brass	1
MUS 105	Violin	1
MUS 106	Low Strings	1
MUS 107	Guitar	1
MUS 108	Percussion	1
MUS 160	Freshman Comprehensive Musicianship I	3
MUS 161	Freshman Comprehensive Musicianship II	3
MUS 162	Applied Music Major	2
MUS 163	Applied Music Major	2
MUS 164	Functional Class Piano I	1
MUS 165	Functional Class Piano II	1
MUS 166	Voice Class I	1
MUS 167	Voice Class II	1
MUS 180	Freshman Ear Training I	1
MUS 181	Freshman Ear Training II	1
MUS 207	Music History and Literature I	3
MUS 208	Music History and Literature II	3
MUS 234	Sophomore Recital Performance	0
MUS 260	Sophomore Comprehensive Musicianship I	3
MUS 261	Sophomore Comprehensive Musicianship II	3
MUS 262	Applied Music Major	2
MUS 263	Applied Music Major	2
MUS 264	Functional Class Piano III	1
MUS 265	Functional Class Piano IV	1
MUS 280	Sophomore Ear Training I	1
MUS 281	Sophomore Ear Training II	1
MUS 301	Form and Analysis	3
MUS 302	Arranging	3
MUS 307	Basic Conducting	2
MUS 309	Instrumental Conducting	3
MUS 310	Junior Recital Performance I	0
MUS 311	Junior Recital Performance II	0
MUS 362	Applied Music Major	2
MUS 363	Applied Music Major	2
MUS 462	Applied Music Major	2
MUS 464	Senior Recital Performance	0

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

SECONDARY EDUCATION (K-12) REQUIREMENTS

40 credits

See secondary education (K-12) requirements under Vocal Concentration on p. 27.

MINOR REQUIREMENTS

18 credits

MUS 160-161	Freshman Comprehensive Musicianship I and II	6
MUS 164-165	Functional Class Piano (2 semesters)	2
MUS 180-181	Freshman Ear Training I and II	2
MUS 207-208	Music History Performance Groups (2 semesters)	6

Courses

Unless otherwise noted, all courses are for 3 credits.

Performing Groups

A placement audition and the permission of the conductor required. General education credit may be given to non-majors for participation in these groups.

MUS 200	Concert Choir
MUS 202	College Chorus (no audition)
MUS 203	Chamber Singers
MUS 211	Concert Band
MUS 212	Preparatory Band
MUS 214	Brass Ensemble
MUS 215	Brass Quintet (trumpet)
MUS 216	Woodwind Ensemble—Clarinet
MUS 217	Woodwind Ensemble—Saxophone
MUS 218	Woodwind Quintet
MUS 219	Percussion Ensemble
MUS 221	WPC—NJ Percussion Ensemble
MUS 222	Jazz Ensemble
MUS 223	Chamber Jazz Ensemble (multiple sections)
MUS 224	Jazz Lab Ensemble I (multiple sections)
MUS 225	Jazz Rhythm Section (multiple sections)
MUS 226	Jazz Lab Ensemble II
MUS 229	Trombone Ensemble
MUS 230	Classical Guitar Ensemble
MUS 231	Twentieth Century Chamber Ensemble
MUS 233	Jazz Vocal Lab
MUS 235	Latin Jazz Ensemble
MUS 239	Jazz Studio Singers
MUS 240	New Jazz Ensemble

1 credit each

Instrumental Classes

Class instruction in basic performance skills on standard instruments. Students proven proficient on an instrument, upon examination, are excused from that class. Classes meet two hours weekly for one semester and are open to music education students only.

MUS 101	Flute and Clarinet
MUS 102	Double Reeds
MUS 103	Trumpet
MUS 104	Low Brass
MUS 105	Violin
MUS 106	Low Strings
MUS 107	Guitar
MUS 108	Percussion

1 credit each

MUS 000 Recital Hour

Recital hour is required of B.S. majors for seven semesters and of B.A. and B.M. majors for eight semesters. Guest artists, faculty artists and student performers are featured in this weekly concert series.

0 credits

MUS 110 Basic Music Studies

An introduction to notation, harmony, score reading, analysis, sight-singing and dictation. For non-music majors. A liberal studies course.

MUS 120 Music Appreciation

Development of perceptive listening, concentrating on music from the baroque, classic and romantic periods. A liberal studies course.

MUS 130 Symphonic Music

A student of representative European and American symphonies, tone poems and concertos from the eighteenth century to the present. A liberal studies course.

MUS 140 Opera

A survey of opera in Europe and America from its beginning to the present. Emphasis on the works of Mozart, Verdi, Wagner and Puccini. A liberal studies course.

MUS 160-161 Freshman Comprehensive Musicianship I and II

The student is prepared to function artistically and intelligently in a variety of musical situations. Focuses on musical literature of all cultures, styles and historical periods; used to develop a conceptual understanding of rhythm, melody, harmony, texture, timbre and form and their interrelationships as they form the basis for listening, performing and creating. Includes contrapuntal textures in two and three parts, compositional devices, diatonic harmony in three and four parts, 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.

3 credits each

MUS 162, 163, 262, 263, 362, 363, 462, 463 Applied Music Major

Individual instruction in piano, organ, voice, guitar, percussion, band and orchestral instruments.

2 credits each

MUS 164-165 Functional Class Piano I and II

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.

1 credit each

MUS 166-167 Voice Class I and II

Vocal fundamentals and practical application in developing and preserving the singing voice. Breath control, resonance, range, diction, vowel formation as related to correct tone production. Methods and materials for teaching. Not open to voice majors.

1 credit each

MUS 180-181 Freshman Ear Training I and II

An integrated course that includes the development of sight-singing, dictation and rhythmic skills. Alto and tenor clefs are introduced during the freshman year.

1 credit each

MUS 190, 191, 290, 291, 390, 391, 490, 491 Applied Music Major (Jazz)

Individual instruction in piano, organ, voice, guitar, percussion, band and orchestral instruments.
4 credits each

MUS 205, 206, 305, 306 Applied Music Minor

Individual instruction in piano and voice for music education and selected theatre majors.
1 credit each

MUS 207-208 Music History and Literature I and II

The growth of Western music from its beginnings through the first half of the twentieth century.
Prerequisite: MUS 161
3 credits each

MUS 220 Jazz History

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. For music majors only.

MUS 234 Sophomore Recital Performance

Taken with MUS 263 or MUS 291.
0 credits

MUS 236 Western Art Music

Analysis and discussion of Western art music from its origins in ancient Greece up to and including contemporary styles. Emphasis on baroque through twentieth century music. Serves the needs of jazz majors and liberal studies students with some prior background, offering both an educational experience beyond what can be taught in MUS 120.

MUS 237 Jazz Improvisation I

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.
Prerequisite: MUS 161 and/or permission of the instructor

MUS 238 Jazz Improvisation II

Expansion of concepts and principles introduced in Improvisation I. Emphasis on chord substitution, melodic development, memorization, student jazz compositions and ear training and analysis.
Prerequisites: MUS 161, 320 and/or permission of the instructor

MUS 245 Music Management Internship I

Designed to provide work experience for students in the music management program. Interns are assigned to an appropriate work experience.

MUS 260-261 Sophomore Comprehensive Musicianship I and II

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 form the nucleus of this course.
3 credits each

MUS 264-265 Functional Class Piano III and IV

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 upon completion of MUS 265.
1 credit each

MUS 266-267 Functional Class Piano—Advanced

This special section is for keyboard majors and qualified vocal and instrumental majors. The course assumes that the student already possesses 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."
1 credit each

MUS 268-269, 368-369 Functional Class Jazz Piano I, II, III, IV

Students in the jazz studies program who are not jazz piano majors choose these sections for their second year of the Functional Class Piano. These course continue to develop the skills begun in MUS 164-165 with special emphasis on jazz improvisation, accompanying and harmonization styles.
1 credit each

MUS 280-281 Sophomore Ear Training I and II

More advanced work in sight singing, dictation and rhythmic skills with special emphasis on the techniques required to perform twentieth century music.
1 credit each

MUS 301 Form and Analysis

Intensive formal, harmonic, rhythmic, melodic and textural analysis of compositions from the Renaissance to the present. Traditional terminology is covered, but the emphasis is on empirical analysis.
Prerequisite: MUS 261

MUS 302 Arranging

A practical approach to arranging for choral and instrumental groups. Deals with the problems teachers encounter as directors of musical organizations. Voice leading, part distribution, range, transpositions and musical styles are studied.
Prerequisite: MUS 261

MUS 304 Studies in Music

An introduction to musicology in a very broad sense of the term. Readings, library projects and research papers are assigned in the history and sociology of music, music theory, ethnomusicology, musical acoustics and the aesthetics of music. Basically interdisciplinary, the course deals 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.
Prerequisite: MUS 261

MUS 307 Basic Conducting

Presents the basic technique of conducting both with and without a baton. These techniques include basic beat patterns, preparation, cut-offs, fermatas, tempos, moods, use of the left hand, etc. Each student conducts using the class as the performing medium.
2 credits

MUS 308 Choral Conducting

Develops and refines the basic techniques of conducting acquired in Basic Conducting. Actual conducting experience applies these techniques to the specific demands of vocal music. Other areas of study include organization and administration of secondary school choral groups, tone and diction and rehearsal techniques.
Prerequisite: MUS 307

MUS 309 Instrumental Conducting

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.
Prerequisite: MUS 307

MUS 310 Junior Recital Performance I

Taken with MUS 362 or MUS 390.
0 credits

MUS 311 Junior Recital Performance II

Taken with MUS 363 or MUS 391.
0 credits

MUS 322-323 Jazz Improvisation III and IV

Continuation of Improvisation II
Prerequisites: MUS 161, 320, 321 and/or permission of the instructor
2 credits each

MUS 331 Western Music Through Josquin

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

Western music from the sixteenth, seventeenth and early eighteenth centuries is listened to, analyzed and discussed.

MUS 333 Music in the Rococo and Classical Periods

A study of the music from the sons of Bach through Beethoven.

MUS 334 Music in the Romantic Period

An in-depth study of European music and its place in society during the nineteenth century.

MUS 335 Choral Literature

A chronological survey and examination of representative choral compositions from each period of Western music, with emphasis on style and its relation to performance. This music is studied in relation to the cultural environment of its time.
Prerequisite: Permission of the instructor

MUS 336 Accompanying

Provides opportunities for upper-class students and advanced piano majors to study the art of accompanying and to develop potential in this area of piano performance.

MUS 341 Composition Class I

A workshop course in musical composition. The instructor assigns specific technical and/or expressive problems. All music is written for instruments or ensembles available in the department and all works are performed in class or in concert. No stylistic limitations.
Prerequisite: MUS 161 and permission of the instructor.

MUS 342 Composition Class II

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.
Prerequisite: MUS 341 and permission of the instructor

MUS 345 Music Management Seminar I

Course divides music industry into specific areas and examines each one in depth, focusing on interrelationships and differences. Technical and administrative areas of the music industry are investigated in terms of historical analysis and current trends. Available entry-level positions are surveyed.

MUS 370 Jazz Arranging

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.
Prerequisite: MUS 260 and/or permission of the instructor

MUS 371 Advanced Jazz Arranging

Expansion of the principles introduced in MUS 370. Instructor assigns 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.
Prerequisite: MUS 260 and/or permission of the instructor

MUS 401 Twentieth Century Music

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.
Prerequisite: MUS 160

MUS 408 Advanced Choral Conducting

Provides for continued study and practice of choral conducting techniques. Emphasis 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 are studied.
2 credits

MUS 410 Maintenance and Repair of Music Instruments

Problems of repair with respect to brass, woodwind, string and percussion instruments.
Laboratory sessions.

MUS 411 Piano Tuning

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

The history, theory and practice of preparing graphic music copy.

MUS 413 The Music Business

Provides the student with an understanding of business practice as related to the music industry. Topics covered include contracts, union regulations, dealing with booking agents, personal managers, publishers and producers, instrument sales, operating music studio and store and other assorted survival techniques.

MUS 464 Senior Recital Performance

B.S. majors take this with MUS 462; B.A. majors take this with MUS 463 and 464; B.M. majors take this with MUS 490 and 491.
0 credits

MUS 495 Jazz/Pop Style and Repertoire

A practical performance laboratory course with emphasis on style and memorization (melody and chord progressions) of standard tunes most frequently used in jazz and the single engagement field.

MUS 499 Independent Study

As approved and to be arranged.
1-3 credits

Department of Theatre

Professors—W. Grant, B. Gulbranson (chairman); R. Leppert, J. Ludwig, B. Sandberg, J. Young

Associate Professor—R. Morgan

Half-Time Visiting Specialists—A. Palmatier, L. Roots, H. Sink

To develop the individual's creative potential; to explore human situations and relations 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.

The dramatic arts have long been recognized as an endeavor that combines all of the arts, most of the crafts, and some of the sciences. For the student who wishes to increase his 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.

MAJOR REQUIREMENTS 30 credits

Although there are no formal prerequisites for admission, the Theatre Department recommends that the 3 following courses (9 credits) be taken by the student who has no formal training in dramatic arts:

THEA 101	Introduction to Theatre	3
THEA 102	Fundamentals of Acting	3
THEA 104	Basic Play Production	3

Required Courses 15 credits

THEA 131	Acting: Improvisational Techniques	3
THEA 141	Theatre Management	3
THEA 162	Stagecraft I	3
THEA 210	Playscripts I	3

Plus three of the four following practicum experiences:

THEA 111	Audience Management Laboratory	1
THEA 112	Technical Theatre Laboratory	1
THEA 114	Costume Construction Laboratory	1
THEA 163	Production Laboratory	1

Electives

15 credits

Through advisement, the student must elect a total of 15 credits from among the following groups of courses:

PERFORMANCE AND PRODUCTION

THEA 211	Acting: Principles of Characterization	3
THEA 213	Acting: Scene Study	3
THEA 223	Stage Speech	3
THEA 262	Readers Theatre I	3
THEA 309	Field Experiences in Drama and Theatre	3
THEA 312	Directing	3
THEA 320	Movement Training for the Actor I	3
THEA 325	Acting: Classical Theatre Techniques	3
THEA 326	Acting: Comic Techniques	3
THEA 372	Stage Makeup	3
THEA 376	Acting: Musical Theatre Techniques	3
THEA 411	Playwriting I	3
THEA 412	Children's Theatre	3
THEA 447	Theatre Workshop I	3-6
THEA 448	Theatre Workshop II	3-9
THEA 479	Acting: Showcase	3
THEA 480	Field Experiences	3

DESIGN/TECHNICAL THEATRE

THEA 232	Basic Costuming	3
THEA 281	Stagecraft II	3
THEA 330	Scene Painting I	3
THEA 333	Stage Management	3
THEA 334	Stage Lighting	3
THEA 379	Scene Design I	3
THEA 380	Scene Design II	3
THEA 384	Advanced Lighting and Sound	3
THEA 430	Scene Painting II	3
THEA 481	Costume Design	3

DIRECTED ELECTIVES

9 credits

Each student must elect 9 credits from the following courses in the history and criticism of theatre and drama:

THEA 212	Broadway Matinees I	3
THEA 260	Playscripts II	3
THEA 263	American Musical Theatre	3
THEA 310	History of Theatre	3
THEA 361	Broadway Matinees II	3
THEA 363	American Theatre and Drama	3

Note: For the student who desires an advanced, in-depth experience in either acting or theatre design equivalent to B.F.A. programs elsewhere, a sequence of courses is available through advisement. Consult the chairman of the department for further information.

Courses

Unless otherwise noted, each course is for 3 credits.

The first three courses are especially designed to satisfy general education requirements:

THEA 101 Introduction to Theatre

An innovative study of the dramatic process covering all facets of play production. The course is approached from the appreciation point of view.

THEA 102 Fundamentals of Acting

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.

THEA 104 Basic Play Production

A basic course in the selection of dramatic material and its mounting as a play, including direction, production, management, acting and the crafts of set, light and costume design.

THEA 111 Audience Management Laboratory

A practical application of the administrative aspects of audience management. May be repeated for credit. 1 credit

THEA 112 Technical Theatre Laboratory

A practical application in the technical aspects of play production. Back stage assignments under faculty supervision. May be repeated for credit. 1 credit

THEA 113 Rehearsal and Production

A practical application in acting under faculty supervision. Work includes rehearsing and performing a play for public presentation. May be repeated for credit. Prerequisite: Audition 1 credit

THEA 114 Costume Construction Laboratory

A practical course in building costumes for theatre productions. May be repeated for credit. 1 credit

THEA 131 Acting: Improvisational Techniques

Basic principles in the development of performance through improvisation.

THEA 141 Theatre Management

A practical approach to learning skills in box office and promotional activities.

THEA 162 Stagecraft I

A practical study of the stage and related facilities and their use within the production framework. 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 163 Production Laboratory

A practical application of the principles of stagecraft. Production-related projects in such crafts as scenic construction, scene painting, properties, lighting and sound. 1 credit

THEA 210 Playscripts I

A study of playscripts in terms of both their fictional and 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 211 Acting: Principles of Characterization

Basic principles in the development of character through play analysis and scene work.

THEA 212 Broadway Matinees I

Through reading scripts and viewing plays and other theatrical events, the student develops 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 213 Acting: Scene Study

An advanced course in acting techniques with an introduction to various styles and approaches through group scene work. Prerequisite: THEA 211

THEA 223 Stage Speech

A comprehensive and practical study of accepted stage speech, including American and foreign dialects.

THEA 232 Basic Costuming

Introduces the basic principles, theories and practices of constructing theatrical costumes through lecture, demonstration and practical projects executed by the student. Also includes the methods and materials for the construction of costume accessories.

THEA 260 Playscripts II

A continuation of the method of studying playscripts begun in THEA 210.

THEA 262 Readers Theatre I

Analysis and group performance of various modes of literature. Emphasis on the appropriate speech, body language and staging techniques needed to effectively and theatrically share the written material with an audience.

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THEA 309 Field Experiences in Drama and Theatre

Students receive academic credit for guided experiences in drama and theatre in the college community. These experiences include touring productions to area schools, geriatric centers, etc.; drama therapy internships, drama education in local schools and other assignments as determined by the instructor.

THEA 310 History of Theatre

Explores the historical development of dramatic form, the physical theatre and technical theatre arts from the Greeks to the present. Investigates the social and cultural forces which shaped the theatre and which were shaped by the theatre and develops critical standards of theatre.

THEA 311 Drama for Children

Study of the importance of dramatic process in a child's individual and social growth. Investigation of the dynamics of the creative process within formal drama (children's theatre) and informal drama (creative dramatics).

THEA 312 Directing

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

Basic and practical instruction in the specific techniques and exercises needed in freeing and developing the actor's body. Special emphasis on dance as an interpretative element of playmaking. Fundamental instruction in ballet and modern.

THEA 325 Acting: Classical Theatre Techniques

A supervised study of the style of acting appropriate for approaching roles from major historical periods: Greek, seventeenth-century French, the Restoration and eighteenth-century England, nineteenth-century melodrama.

THEA 326 Acting: Comic Techniques

A concentrated study of the techniques appropriate to handling comedic roles.

THEA 330 Scene Painting I

A study of the basic styles of theatrical painting. Concentration on dry pigments and casein mediums. Develops in the student a basic ability to interpret the scenic designer's elevations and reproduce them for the stage.

THEA 333 Stage Management

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 are examined.

THEA 334 Stage Lighting

Training in problems of stage lighting design and practical application of principles and techniques. Individual projects required.

THEA 340 Movement Training for the Actor II

Advanced practical instruction in the specific techniques and exercises needed in freeing and developing the actor's body. A continuation of THEA 320.

THEA 361 Broadway Matinees II

Through 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. Includes field trips to plays and other theatrical events.

THEA 363 American Theatre and Drama

The study of the development of American theatre and its drama from the colonial period to the present, with emphasis on twentieth century American drama.

THEA 372 Stage Makeup

Techniques of straight, corrective and character makeup application and a study of makeup styles for specific periods in theatrical history for the actor.

THEA 376 Acting: Musical Theatre Techniques

A supervised study of the techniques appropriate to developing roles in musical theatre. Special attention is given to the interpretation of a musical selection.

THEA 379 Scene Design I

Investigation of the problems of scene design and its application to theatrical production in various forms. Individual projects required.

THEA 380 Scene Design II

A comprehensive examination of set design, emphasizing the development of rendering and model-building techniques for presentational purposes. Students provide settings for major projects in laboratory situations.

THEA 382 Stage Drafting

Basic training in the mechanics of theatrical drafting. Ground plans, theatrical cross sectioning and construction details are the primary areas of concentration. Emphasis on the designer processes and methods of development of scenic elevations from ground plans.

THEA 384 Advanced Lighting and Sound

Advanced training in the problems of lighting design and control. The use and application of sound effects and the development of sound systems are examined in detail.

THEA 411 Playwriting I

A study and practice in the basic techniques of playwriting. Emphasizes dramatic structure and characterization developed through the writing of scenes and short plays.

THEA 412 Children's Theatre

Study of the educational and artistic modes of contemporary children's theatre. Focuses on styles of presentation and children's dramatic literature.

THEA 430 Scene Painting II

Advanced scene painting techniques and a continuation of THEA 330, emphasizing material use.

THEA 432 Design: Periods and Styles

Explores the styles and periods of ornament, architecture and furnishings of the major historical periods. Students are expected to assemble a basic source book of design-related materials.

THEA 447 Theatre Workshop I

Training and experience in the creative process of rehearsing and performing a play before an audience. Through audition, the student is assigned work in one of the following areas: acting, design, technical production or theatre management. 3-6 credits

THEA 448 Theatre Workshop II

A continuation of THEA 447. 3-9 credits

THEA 461 Playwriting II

A more advanced and individualized continuation of THEA 411. Prerequisite: THEA 411.

THEA 476 Acting: Realism

A supervised study of realistic roles from the vast repertory of world drama.

THEA 479 Acting: Showcase

A directed independent practicum culminating in a public performance.

THEA 481 Costume Design

Training and experience in the problems of costume design and construction for various forms and styles of theatrical productions.

THEA 499 Independent Study in Performance

An advanced performance project under faculty supervision. Prerequisite: Approval of the chairman

The School of Education and Community Service

William M. Willis, Acting Dean
Raubinger 430

The School of Education and Community Service develops and administers the education components of the College's teacher education programs, including those in community and human services.

By arrangement with the New Jersey State Department of Education, it 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.

The School of Education and Community Service makes every effort to relate to the contemporary world student needs, program innovations and interdisciplinary offerings. The school has been actively involved in all types of grant programs, especially those in special, bilingual, parent and early childhood education, head start, micro computer and gerontology.

Undergraduate Evening Students

Regularly admitted evening students interested in pursuing a teacher education program must indicate their choice early and apply for admission to a major program. Typically, their last semester must be spent student teaching in the practicum appropriate to the major. Individualized alternatives for the 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.

Students interested in certification in bilingual/bicultural education should consult p. 76; in teaching English as a second language, p. 76; in speech correction, p. 58; and in health, p. 55.

Field Laboratory Experiences

The Office of Field Laboratory Experiences coordinates practicums, which are preliminary teaching experiences in the schools, and culminating field experiences, the final student teaching experience undertaken by graduating seniors.

Located in Room 206 of Hunziker Hall, the office is directed by Dr. Harry T. Gumaer. Associate director of the office is John Huber.

Prerequisites for EDUC 403 Culminating Field Experience and EDUC 415 Senior Teaching Internships include:

1. Admission to the appropriate major department.
2. Approval of the individual applicant by the Program Review Committee of the department, which is responsible for certification, based on the following standards:
 - (a) A cumulative grade point average of 2.25 at the close of the semester immediately preceding student teaching.
 - (b) A cumulative grade point average of 2.5 in the major field, in directed electives, and in the teacher education sequence.
 - (c) Satisfactory completion of all preliminary field experiences and methods courses required in the program.
 - (d) A minimum of 84 credits completed at the end of the semester preceding student teaching.
 - (e) Completion of all requirements based on the freshman basic skills tests in reading, writing and mathematics and the successful completion of ENG 110, *Writing Effective Prose*.
 - (f) An analysis of speech patterns and problems (if any).
 - (g) Consideration of additional departmental standards in the form of auditions, physical performance requirements, submission of folio, specific skills tests, etc.
 - (h) A personal interview conducted by the appropriate review committee to appraise the previous requirements and recommend approval, disapproval, or tentative approval pending corrective work.
3. In addition, the student must:
 - (a) Have documentation of a negative test for tuberculosis during the eight months prior to the culminating field experience.
 - (b) Apply to the Office of Field Laboratory Experiences by February 1 of the junior year.
 - (c) Pay a service fee of \$60 (in addition to tuition fees) prior to the processing of the application for the culminating field experience.

Policies for the Culminating Field Experience

The following rules apply to the selection of a cooperating school and teacher for the culminating field experience:

1. No student will attempt to effect his own placement.
2. An effort is made to place students within reasonable commuting distances, but assignments are based primarily on availability of suitable cooperating teachers and school districts.
3. A student generally is not placed in the community in which he lives.
4. Placement is in the major field in a public school district.

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. Waivers for the culminating field experience are not authorized.

Requirements for Practicum Assignments

Prerequisites for practicums vary according to departments, but usually include 60 college credits and admission to the department. Waivers are granted only upon documentation of experience and by joint approval of the department and the Office of Field Laboratory Experiences.

Courses

Unless otherwise noted, all courses are for 3 credits.

EDUC 333 Individualized Instruction

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 arrange a free day for field work when they plan their schedules. By advanced application only with the Office of Field Laboratory Experiences.

EDUC 403 Culminating Field Experience

Each senior student is assigned fulltime to student teach 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 classroom activities 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 among the school and parents and com-

WILLIAM PATERSON COLLEGE

munity groups.

Prerequisites: See Field Laboratory Experiences, p. 36.
8 credits.

EDUC 415 Senior Teaching Internship

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 or an equivalent and parallel course approved by the Office of Field Laboratory Experiences.

Prerequisites: See p. 36.
12 credits

EDUC 416 Performance Tasks in Teaching

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 also explores innovative arrangements in schools and the need for effective teaching.

EDUC 465 In-Service Supervised Teaching Seminar I

Meets 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. Incorporates bi-weekly seminar meetings and evaluation visits by the college supervisor to each student's classroom.

Open only to students enrolled in a certification sequence at William Paterson College. No credit is given for Part I without Part II.
4 credits

EDUC 466 In-Service Supervised Teaching Seminar II

A continuation of EDUC 465
4 credits

Women's Studies

MINOR REQUIREMENTS 18 credits

WS	300	Women's Changing Roles	3
or			
POL	210	Politics and Sex	3
Plus five of the following courses:			
AAAS	255	The Black Woman Experience	3
ENG	217	Images of Women in Modern Literature	3
ENG	219	Nineteenth Century Women's Voices	3
ENG	220	Women, the Bible and Modern Literature	3
HSA	307	Sex Differences and Discrimination in Public Education	3
HSA	499	Independent Study in Women's Studies	1-3
HSC	210	Women's Health	3
HIST	250	Women's History	3
PHIL	324	Philosophy of Sexual Politics	3
PSY	311	Psychology of Women	3

Courses

Unless otherwise noted, all courses are for 3 credits.

WS 110 Women: Changing Roles

A history and analysis of the origins, philosophies, issues and activities of the new women's movement. Deals with sex roles in a changing society and role conflicts of both men and women resulting from this movement. Analyzes the image of women presented in the mass media.

WS 307 Sex and Work Differences, Stereotypes and Discrimination in Education

Develops awareness of sex biases in our culture with particular emphasis on the role of the school. Explores methods of eliminating such biases in classroom instruction. An examination of materials currently being used in public schools.

Department of Administrative, Adult and Secondary Programs

Professors—S. Balassi, S. Chao, H. Hartman, J. Gower, H. Gumaer, S. Wollock

Associate Professors—R. Fern, C. Hartman (chairman), R. Walker

Assistant Professor—C. Mancuso

The Department of Administrative, Adult and Secondary Programs offers teacher education programs which provide teaching expertise and state certification in various academic fields and the performing arts.

The AASP faculty also provides certain service courses common to all teacher education programs.

A list of majors offered by the College with a list of corresponding teaching certificates (K-12) offered by the department follows:

Certification (for all levels)

Social Studies
Art
Science
Science
Speech Arts
English
French
Social Studies
Social Studies
Mathematics
Music
Social Studies
Social Studies
Spanish
Social Studies

College Majors

African and Afro-American Studies
Art
Biology
Chemistry
Communication
English
French
Geography
History
Mathematics
Music
Political Science
Sociology
Spanish
Urban Education

The department coordinates its program with the various college departments that offer the subject majors. Advisement is provided cooperatively. Special forms are available for individualized student advisement. Special attention is given to advisement with respect to responsibilities, program and the personal competencies of 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.

Secondary Education

In addition to liberal studies courses and major, directed elective and special courses that major departments may require of students seeking subject field certification, students must also complete the following to obtain teaching certification from the Department of Administrative, Adult and Secondary Programs.

SUBJECT FIELD CERTIFICATION (K-12) REQUIREMENTS **40 credits**

PSY 110	General Psychology*	3
HSC 120	Current Health Issues*	3
ELED 310	Educational Psychology: Adaptations and Interventions in the Classroom	3
or		
PSY 210	Developmental Psychology (for majors in art and music)	3
SED 340	Exploring the Teaching Field (a pre-student teaching field requirement)	1
SED 302	Discovering Your Teaching Self (K-12)	3
RLA 329	Foundations of Reading	3
RLA 330	Reading Strategies for the Content Areas	3
or		
SED 382	Teaching Reading Grades 5-12	3
SED 301	Curriculum and Its Implementation (art and music majors are exempt)	3
SED 330	Implementing Your Teaching Major (K-12) (Dependent upon major ... art and music majors are exempt)	3
or		
SED 331	Implementing Your Teaching Major (K-12) (Dependent upon major ... art and music majors are exempt)	3
EDUC 403	Culminating Field Experience	8
SED 404	Instructional Seminar for Student Teaching	1
Plus one human relations course from the following:		
SED 381	Educational Sociology	3
SED 391	Challenge, Change and Commitment in Education	3
SED 432	Human Adaptations and Alternatives in the School	3
URED 482	The Inner City Child and His Environment	3

Plus one professional preparation course from the following:

SED 380	Insights and Outlooks in Education	3
SED 428	Simulated Laboratory Experiences in Secondary Schools	3
SED 430	Teaching Literature to Young Adults: Grades 5-12	3
SED 480	Field Research in Teacher Education	3
LMS 323	Modern Educational Media	3

*PSY 110 and HSC 120 may be applied toward partial fulfillment of liberal studies requirements.

Courses

Unless otherwise noted, all courses are for 3 credits.

SED 301 Curriculum and Its Implementation

A study of the major goals and standards of the various curricula used by regular schools and alternative schools. Emphasizes recent developments in the various subject fields and the teacher's role in the process of curriculum change. A senior practicum, 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)

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 interests in preparing educational programs; and 4) aspects of teaching as a career option. Corequisite: SED 340 Exploring the Teaching Field
A pre-student teaching requirement of the junior year. SED 302 and 340 constitute the Junior Year Field Model.

SED 303 Music Education I

An analysis of methods, techniques and materials for teaching music in the elementary school. Explores the place and aims of music in the elementary school with attention to general classroom music and the development of vocal and instrumental groups. Work is related to field experiences. Corequisites: SED 324, 404 and EDUC 403 For music education majors

SED 326 Art, Children and Learning Vitality

Students 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. Provides insights into the background, development, directions and thrusts of art education for the 1980's. Elective for all students; required of art education majors.

SED 329 The Competencies of Open Education

Explores the characteristics of open education that encourage creativity, develop appreciation and nurture sensitivity. Develops insights and understandings of such programs through directed experiences. Sequences range from concrete to complex and involve self-selection of activities within the framework of individualization.

SED 330 Implementing Your Teaching Major (K-12)

Forms and procedures for instructional planning (including media and materials) are defined, designed, implemented and evaluated. Develops 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

Emphasizes 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.

Prerequisite: Admission to the English major
Corequisite: SED 301 Curriculum and Its Implementation.

MODULE B—Foreign Language

Emphasizes the objectives of modern foreign language education, the individualization of instruction, teaching the spoken language and pupil evaluation.

Prerequisite: Admission to foreign language major
Corequisite: SED 301

MODULE C—Communication (Speech Arts)

Emphasizes speaking and listening skills, classroom activities in speech and dramatics, studies in mass media, methods and materials for teaching and evaluating. Includes speech, television and radio, oral reading, dramatics, choral speaking, debate and assembly programs.

Prerequisite: Admission to the communication major
Corequisite: SED 301

SED 331 Implementing Your Teaching Major (K-12)

Forms and procedures for instructional planning (including media and materials) are defined, designed, implemented and evaluated. Develops the student teacher's clinical competencies. In order to obtain specific teaching techniques appropriate to the discipline or subject major, the following modules are provided:

MODULE E—Mathematics

Emphasizes the objectives of mathematics education, the individualization of instruction, pupil evaluation and trends in mathematics curriculum development. Prerequisite: Satisfactory standing in the mathematics major program. Corequisite: SED 301

MODULE F—Science

Emphasis on the objectives of science education, the individualization of instruction, pupil evaluation and trends in science curriculum development. Prerequisite: Admission to the biology or chemistry major. Corequisite: SED 301

MODULE G—Social Studies

Emphasis on the objectives of social studies education, the individualization of instruction, pupil evaluation and trends in social studies curriculum development. Taken concurrently with SED 301 so that methodology may be related to the practicum. Prerequisite: Admission to the geography, history, political science, sociology, African and Afro-American studies or urban education major. Corequisite: SED 301

SED 340 Exploring the Teaching Field

Provides bridge between theory and practice. Observation of necessary 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. Must be taken in the junior year.

Corequisite: SED 302
1 credit

SED 342 Ecology for Educators

A multidisciplinary course, using materials from many science disciplines. Develops adequate teacher background with multiple teaching strategies for the energy and conservation topics taught in grades 1-12. Field trips to energy-producing and energy-research stations. Students learn to use a variety of audio-visual aids, some self-prepared, to construct resource units and units of study for specific grade levels.

SED 350 Teaching the Intermediate Years

Designed for students intending to teach the late pre-adolescent or early adolescent. Special attention to the objectives, concepts, methods and materials significant in an instructional program for the intermediate years. Emphasis on developing competencies in guidance, working as part of a teaching team, using the problem-solving approach, integrating a variety of content and developing techniques for successful teaching in blocktime situations. Develops skills in evaluating, testing and reporting learning.

SED 351 Field Experience and Seminar: Stratum I

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 skills and resources. Prerequisite: SED 350

SED 352 Curriculum of the Intermediate and Junior High School

Examines the development, organizational structure and program of various types of intermediate and junior high schools. Attention to recent developments in the various subject fields and the teacher's role in the process of curriculum change. Explores new types of school organization and scheduling.

SED 360 New Perspectives in English

Examines contemporary and innovative methods, techniques, media, materials and research used in the teaching of English in the intermediate and junior high school grades. New approaches to the teaching of oral English, literature, composition and language structure, and to the recommendations of professional and learned societies.

SED 363 New Perspectives in Mathematics

Contemporary thinking and innovations in the teaching of mathematics in the intermediate and junior high school grades. Methods, techniques, media, materials, research and content appropriate to these grade levels are reviewed. Modern arithmetic and algebra, informal geometry and statistics, and the recommendations of professional and learned societies are included.

SED 380 Evolving Concepts of Education

Concepts and theories from historical, philosophical and sociological sources. Outlooks for emerging and developing educational thought are examined through instructional practices currently observable in institutions of learning.

SED 381 Educational Sociology

Basic concepts of human relationships and selected problems of the contemporary social order are analyzed. Individual research in the area of students' special needs and interests. Topics include housing, race, crime and delinquency, teacher-community relationships, community action and cultural relations.

SED 383 Teaching Reading in Grades 5-12

A survey of the developmental, work-study and recreational reading of intermediate, junior high and senior high school students. Emphasizes methods of improving reading and study skills in subject matter areas. For secondary education students only.

SED 391 Challenge, Change and Commitment in Education

Presents the challenge and change related to the functions and role of education in an increasingly complex and technological society. 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

Explores some specific aspects of the global crisis and its impact on culture with a focus on education. Individual student examination of immediate cultural binds in that student's own experience and a sharing of these through confrontation, interaction and dialogue.

SED 393 Adventures in Affective Education

Designed to enhance and develop the students' intuitive, creative and imaginative senses so that they can discover techniques and skills for fostering this kind of growth in their own students. Major focus on newer techniques and strategies used in teaching and learning in both traditional and non-traditional schools and settings.

SED 404 Instructional Seminar for Student Teaching

Explores current trends and developments in public education with particular attention to classroom management and other problems confronting student teachers. Conducted during the semester of the student teaching experience. Corequisite: EDUC 403
1 credit

SED 405 Art Education I

An analysis of methods, techniques and materials for teaching art in the elementary school. A study of philosophy and history of art education, curriculum organization and art activities that contribute to the creative and mental growth of children. Corequisites: SED 404, 408 and EDUC 403
For art education majors

SED 407 Music Education II

An overview of the music program in the junior and senior high school. 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.
Prerequisite: Admission to the instrumental or vocal music major

SED 408 Art Education II

Analyzes techniques, methods and media in the secondary school art curriculum. A practicum is included.
Prerequisite: Admission to the art major
Corequisites: EDUC 403, SED 404, SED 405

SED 428 Simulated Laboratory Experiences in Secondary Schools

Provides an overview of the changing high school with emphasis on solving multi-ethnic problems. Each student has an opportunity to approach, assess and solve these problems and to handle potentially difficult situations.

SED 430 Teaching Literature to Young Adults: Grades 5-12

A study of the books actually read by the modern adolescent in grades 5-12. An analysis of subliterate, the adolescent novel, the popular adult book, relevant poetry, nonfiction and the ethnic experience in literature. Stresses effective ways of teaching literature to the adolescent.

SED 432 Human Adaptations and Alternatives in the School

A pre-service course for teachers. Designed to study the human relations aspect of social interaction and cultural changes in the schools today.

SED 435 Alternative Forms of Education

The alternative school movement, including educational options provided both inside and outside the framework of public schools. Considers pioneer programs, alternative learning experiences and innovative educational approaches.
Elective for teacher education majors. Students in other programs may enroll with the permission of the instructor.

SED 436 Creativity and Display in Instruction

Develops an understanding of the creative process and its practical application in the classroom. Helps the teacher master display techniques and multimedia devices as forms of communication, motivation and growth.

SED 437 Adult and Continuing Education

A study of various program-sponsoring agencies and the participants they reach. The student observes how instructional devices and individualized techniques are utilized in teaching adults. Some class meetings are conducted in the field.

SED 438 Field Trips and Experiential Learning

Provides the student with relevant learning experiences. The effectiveness of the experience is related to the choice, planning and organization of the educational happenings.

SED 451 Education Laboratory: Crafts and Strategies in Earth Science

Study of techniques for conducting a laboratory oriented school earth science program. Presents and analyzes the interdisciplinary principles involved and experiential strategies. Emphasizes 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 is an integral part of the course.
4 credits

SED 480 Field Research Studies in Teacher Education

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 pursues 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.

Prerequisite: Admission to a teacher education major or certification sequence. Open to students with a 2.75 GPA or with the permission of the instructor.

SED 499 Independent Study

As approved and to be arranged.
1-3 credits

Educational Administration

ADE 401 School and Consumer Education: A Quality of Life Approach

A "quality of life approach" to the study of (1) consumerism and (2) organizational arrangements for consumer education programs offered by public schools.
Elective for teacher education majors. Students in other programs may be admitted with the permission of the instructor.

ADE 402 Schools, Manpower and Careers: Education for the Future

Considers manpower development and career-oriented education provided by public schools. Among topics: implementation of career education in a technological society; the manpower of revolution; career alternatives for the future; and schools and manpower policies.
Elective for teacher education majors. Students in other programs may be admitted with the permission of the instructor.

ADE 403 Legal and Financial Aspects of the Operation of Public Schools

Provides an introduction to legal and financial aspects of the operation of public schools: legal responsibilities, rights and duties of teachers, problems in securing and allocating funds for public education and related topics.
Elective for teacher education majors.

Department of Community, Early Childhood and Language Arts

Professors—J. Baines (chairman), J. Feeley, B. Grant, L. Hilton, M. Moreno, G. Vitalone

Associate Professors—G. Brown, A. Calian-dro, A. Coletta, J. Marnone, W. Small, M. Turkish, W. Willis

Assistant Professors—L. Aitken, V. Baldassano, M. Dougherty, J. Gallo, V. Grier, W. Mason

The Department of Community, Early Childhood and Language Arts contains three units offering two undergraduate and two graduate degrees. The undergraduate degrees are a B.A. in early childhood education and a B.A. in urban education and community affairs. In addition, the reading and language arts component of the department offers an endorsement in reading.

Urban Education and Community Affairs

The urban education and community affairs unit offers programs in education and community affairs. Students wishing to take teacher preparation courses in urban education may be certified in early childhood, elementary education, or secondary education/social studies.

Students wishing to pursue careers in community services may, with departmental approval, follow the non-certification program. Students following one of the three certification programs must complete liberal studies courses required of all students, major courses required by the department and certification courses.

Students following the community careers program must complete liberal studies courses required of all students, and major courses selected by departmental advisement.

MAJOR REQUIREMENTS		33 credits
URED 120	The Human Community	3
URED 200	Introduction to Urban Education	3
URED 301	Community Affairs Seminar and Field Study	6
URED 482	The Inner City Child and His Environment	3
In addition, students must select six courses from the following, or from other courses approved by the department:		
URED 209	Violence in the Community	3
URED 210	Drug Use and Abuse	3
URED 304	Education of the Self	3
URED 372	Development and Change in Education	3
URED 420	Urban Issues: Other Minorities	3
URED 480	Ethnic Dance	3
URED 483	Non-Partisan Political Action	3

WILLIAM PATERSON COLLEGE

CERTIFICATION REQUIREMENTS

Elementary Education: See p. 40.
 Early Childhood Education: See p. 38.
 Social Studies Education: See p. 34.

Courses

Unless otherwise noted, all courses are for 3 credits.

URED 120 The Human Community

A survey of theories concerning the nature of the human community, typical forms and processes characterizing human communities and approaches to developing and maintaining communities.

URED 124 Conflict Resolution

The study and practice of negotiating conflict resolutions and of personal and interpersonal skills required to negotiate resolutions on personal, interpersonal and group levels.

URED 200 Introduction to Urban Education

A survey of the historic, socio-political, psychological and basic economic factors of urban life as they relate to urban educational structures.

URED 209 Violence in the Community

The causes, patterns and functions of violence. Violence is studied as an extension of biology. A course in the sociobiology of violence in human communities.

URED 210 Drug Use and Abuse

A survey of aspects of basic psychological and legal information on drug use and abuse. Some field work is included.

URED 214 The Urban Environment and Child Abuse

Through lecture, discussion, reading and research, the growing phenomenon of child abuse is studied. Examines history of child abuse, relationship of parent and the law, community agencies and institutions that affect urban and ethnic child-rearing practices, causes and variety of abuse patterns and preventive programs and techniques.

URED 301 Community Affairs Seminar and Field Study

Contemporary urban issues are discussed in relation to field experience, culminating in a systems analysis of relationships between field experience and local specific problems. Conducted in combination with a field study which requires 6-8 hours of fieldwork each week in both community organizations and public agencies.
 3-6 credits

URED 304 Education of the Self

A survey of literature on humanistic education to help teachers develop alternative approaches to reach students and to put teachers in touch with their own feelings and concerns.

URED 372 Development and Change in Education

Examination of the critical problems in urban education and selected strategies for change. Emphasis on curriculum and teaching strategies.

URED 480 Ethnic Dance

Survey of the European, Slavic, African and Latin cultures with emphasis on dance as an expression of the culture.

URED 481 Science in the City

Surveys major principles from the physical and biological sciences. 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.

URED 482 The Inner City Child and His Environment

The problems of the inner city child in the urban setting. Environmental factors are 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.

URED 483 Non-Partisan Political Action

The methods used for conducting "grass roots" campaigns through legitimate political channels.

URED 486 Contributions of Latin Americans to Urban Environment

A history of Latin American religion, diet, education and employment in the urban environment.

URED 487 Science, Technology and the Urban Society

Factors which affect man's environment and produce 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.

URED 499 Independent Study

As approved and to be arranged.
 1-3 credits

Early Childhood Education

The early childhood unit provides the student 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.

MAJOR REQUIREMENTS			34 credits
EC	201	Creative Art for Early Childhood	3
EC	202	Music and the Young Child	3
EC	220	Reading and the Young Child	3
EC	221	The Young Child and Language Arts	3
EC	300	Practicum in Kindergarten and Primary Grades	4
EC	320	Early Childhood Curriculum I	6
EC	321	Early Childhood Curriculum II	6
EC	351	Mathematics in Early Childhood Education	3
EC	364	Workshop in Reading and Learning Problems of the Young Child	3

DIRECTED ELECTIVES			15 credits
PSY	210	Developmental Psychology	3
SPED	430	Education of the Exceptional Child*	3

Plus one 3-credit course in history, in laboratory science and in math.

*With the exception of SPED 430, directed electives may be applied toward partial completion of liberal studies requirements.

CERTIFICATION REQUIREMENTS			30 credits
EC	405	Early Childhood Internship Seminar	3
EDUC	415	Senior Teaching Internship	12
ELED	310	Educational Psychology: Adaptations and Interventions in the Classroom	3
HSC	321	Nutrition in Early Childhood	3
PSY	110	General Psychology	3
Plus one human relations course from the following:			
EC	340	Parent Involvement in Early Childhood Education	3
URED	482	The Inner City Child and His Environment	3

Plus one professional preparation course from the following:

EC	210	Infant Care Programs	3
EC	339	The Art of Parenting	3
EC	340	Parent Involvement in Early Childhood Education	3
LMS	323	Modern Educational Media	3
RLA	325	Children's Literature	3
THEA	311	Drama for Children	3
URED	482	The Inner City Child and His Environment	3

Additional education electives are listed elsewhere in this catalog.

Courses

Unless otherwise noted, all courses are for 3 credits.

EC 190 Introduction to Early Childhood Education

An overview of the field of early childhood education. The unique qualities of the learning process in early childhood education are examined. Various child development programs are analyzed, with special emphasis on observation techniques. Teaching methods are emphasized.

EC 201 Creative Art for Early Childhood

Art activities as modes of perception and integration fundamental to human growth and learning. Emphasis on the experimental with multi-media.

EC 202 Music and the Young Child

Exploration and discovery in sound, rhythm, body movement, melody, harmony and playing instruments give the pre-service teacher a background in basic musicianship and develop the skills and understanding needed for the creative teaching of music. Emphasizes listening creativity, increases individual musical independence and fosters the aesthetic value of music in the young child's growth and development.

EC 210 Infant Care Programs

Focuses on the infant and toddler years, birth to three. Emphasis on the developmental process and the relation of development to environmental supports. Helps educators of young children design and maintain appropriate learning environments for infants and toddlers. Topics: play and cognition, language development, effects of early group care, scheduling the child's day, planning of programs.

EC 220 Reading and the Young Child

Explores and develops knowledge of reading as a process and a subject, including its relation to the nature of the child and the learning process. Emphasis on the fundamentals of the developmental teaching of reading at all ages and stages and the application of same to individual and group instruction.

EC 221 The Young Child and Language Arts

A study of the language skills of pre-school, kindergarten and primary children with an emphasis on listening, speaking, spelling, handwriting and creative writing. Techniques for developing and evaluating these skills within the curriculum. Also considers creative expression, dramatic play and children's literature.

EC 300 Practicum in Kindergarten and Primary Grades

A teaching-learning experience with children in grades K-3. Students observe, assess and work with small groups and, eventually, teach the whole class. Regularly scheduled seminars are held as part of the course.

EC 320 Early Childhood Curriculum I

A study of the integrated and organized activities which meet the educational, psychological, sociological and cultural needs of children 3-5 years of age. Principles of curriculum development are combined with appropriate teaching procedures and techniques. A concurrent practicum is required.

EC 321 Early Childhood Curriculum II

The role of correlated experiences from the fields of social studies, children's literature, science, art, music, health, safety, play and games in the education of the young child.

EC 339 The Art of Parenting

An introduction to the art of parenting, designed for now and future parents. Parenting patterns from infancy through adolescence are covered, with the focus, primarily, on the preschool years. Various aspects of parenting are examined, including discipline, "critical incidents," fears, illness, sex and television. Lectures, small group discussion, films and guest speakers constitute the course.

EC 340 Parent Involvement in Early Childhood Education

A study of the components of parent involvement: home-school communication, classroom tasks for parents, parent education, policy making, home learning activities, the importance of parent involvement, parent-effectiveness training and parent-teacher conferences.

EC 341 Bilingual Education: Theory and Practice in Early Childhood

Examines programs and related research in bilingual education, especially for young children of Spanish-speaking populations. Emphasizes the rationales for and methods of implementing bilingual programs in a socio-cultural context.

EC 351 Mathematics in Early Childhood Education

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 364 Workshop in Reading and Learning Problems of Young Children

Emphasis on diagnostic-prescriptive teaching of reading. Explores the physical, intellectual, psychological and environmental factors involved in the reading problems of young children. Individual and group diagnoses, correction and the development of appropriate strategies for developmental, remedial, and corrective programs within the classroom.

EC 405 Early Childhood Internship Seminar

Designed to accompany the senior teaching internship. Comprised of three areas: 1) interaction regarding the student-teaching experience; 2) human-relations skills to assist in understanding and more effectively responding to student-teaching issues; and 3) career-development information which will guide the student in preparing and applying for positions in teaching and related fields.

EC 499 Independent Study

As approved and to be arranged.
1-3 credits

WILLIAM PATERSON COLLEGE

Reading and Language Arts

READING TEACHER ENDORSEMENT PROGRAM 24 credits

Required Courses (Reading) 12 credits

RLA 323	Teaching Reading	3
or		
RLA 329	Foundations of Reading	3
RLA 330	Reading Strategies for the Content Areas	3
RLA 423	Advanced Reading Techniques	3
and		
RLA 425	Reading Practicum	3
or		
RLA 495	Reading Improvement and Practicum	6

Tests and Measurements/ Psychology 6 credits

PSY 310	Orientation to Individual Testing	3
or		
SPC 410	Education Testing and Evaluation	3
PSY 210	Developmental Psychology	3

Literature 3 credits

RLA 325	Children's Literature	3
or		
SED 430	Teaching Literature to Young Adults	3

Additional Related Courses 3 credits

PSY 352	Psycholinguistics	3
COMM 265	Foundations of Language	3
PATH 160	Phonetics	3
ENG 401	Linguistics and Grammar	3
ELED 320	Teaching Language Arts in the Elementary School	3
SED 360	New Perspectives in English	3
EC 221	The Young Child and Language Arts	3
THEA 311	Drama for Children	3

Courses

Unless otherwise noted, all courses are for 3 credits.

RLA/ENG 107 Basic Reading

Develops and increases the student's reading vocabulary, comprehension and study skills. Also stresses flexible reading approaches applicable to various materials including the student's college texts. Credits do not count toward degree requirements.

RLA 323 Teaching Reading

A basic course in the psychological principles, methods and materials for teaching developmental reading in the elementary school. Includes aspects of readiness, word identification, comprehension, study skills, and rate; various organizational plans, informal and formal testing procedures.

RLA 325 Children's Literature

A survey of children's literature, past and present. Techniques for critiquing various genres of literature, telling stories, preparing study guides, using book selection aids, and creating interest in literature. Strategies for bringing children and books together are emphasized.

RLA 329 Foundations of Reading

The psychological and linguistic foundations of the reading process. Emphasis on how learners develop the ability to read and understand increasingly difficult and diverse materials through their school years. Stresses classroom techniques for content area teachers (K-12). The first part of the six-point reading sequence required for New Jersey certification in a content area (K-12).

RLA 330 Reading Strategies for the Content Areas

Reading skills and knowledge needed by the content-area teacher: the subject area materials, different modes of learning, causes of reading difficulties and methods of preparing materials and students for improved reading performance. Students develop a case study of a reader as he interacts with appropriate content area materials. The second part of the reading sequence for non-elementary education majors who are seeking K-12 certification in a specific content area.

Prerequisite: RLA 329

RLA 423 Advanced Reading Techniques

Designed to help prospective teachers understand the elements of accountability involved in the teaching of reading through actual involvement in a developed case study.

Prerequisite: RLA 323 or 329

RLA 425 Reading Practicum

The application of reading theory in schools and settings in the area where the student works with youngsters or adults in need of tutoring or special instruction. Emphasis on planning, teaching and evaluating lessons. A log of experiences must be maintained. Students are supervised by college staff.

RLA 495 Reading Improvement and Practicum

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. 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.

Prerequisite: RLA 323 or 329 or equivalent
6 credits

RLA 499 Independent Study

As approved and to be arranged.
1-3 credits

Department of Elementary Education

Professors—E.F. Arthur, J. Canino, T. Geme, A. Geyer, L. Hummel, K. Job, E. Siegel, G. Vitalone, L. Walter, D. White, L. Zappo

Associate Professors—P. Buckley, N. D'Ambrosio, W. Engels, J. Peer (chairman), G. Petine, C. Spinosa, J. Tetens

Assistant Professors—F. Goldberg, T. Kenefick, D. Lauricella, D. Malcolm, E. Petkus, J. Rockman

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 is based on pertinent subject matter preparation and a blend of theory and practice. It is intended to give prospective teachers substantive backgrounds with a positive attitude toward self-evaluation, experimentation, innovation and change.

While the 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 the opportunity for the individual student to design, with guidance, various concentrations in relevant areas of instruction, using various electives.

The department offers students courses and experiences to develop professionalized content backgrounds in the elementary school, in educational psychology and in the arts, mathematics, science and social studies.

MAJOR REQUIREMENTS 67 credits

EDUC 415	Senior Teaching Internship	12
ELED 210	Growth Processes of the School-Age Child	3
ELED 231	Concepts and Skills of Elementary Mathematics	3
ELED 300	The Elementary School	3
ELED 301	Practicum in Elementary Education	3
ELED 310	Educational Psychology	3
ELED 320	Teaching Language Arts in the Elementary School	3
ELED 324	Teaching Mathematics in the Elementary School	2
ELED 325	Teaching Art in the Elementary School	2
ELED 326	Teaching Music in the Elementary School	2
ELED 327	Teaching Science in the Elementary School	2
ELED 328	Teaching Social Studies in the Elementary School	2
ELED 405	Seminar in Education	3
PE 310	Health and Physical Education Programs in the Elementary School	3
PSY 110	General Psychology	3
RLA 323	Teaching Reading	3
RLA 423	Advanced Reading Techniques	3

Plus one course from each of the following:

I. Human Relations

ELED 203	The Urban School Experience	3
SED 381	Educational Sociology	3
SED 391	Challenges, Change and Commitment in Education	3
SED 432	Human Adaptations	3
URED 482	The Inner City Child	3

II. Education Electives

ELED 230	Explorations in Art	3
ELED 232	Fundamentals of Music	3
ELED 234	Concepts and Skills in Elementary Social Studies	3
ELED 239	Concepts and Skills in Elementary Science	3

III. Content

CSP 401	Educational Testing	3
ELED 204	Intuitive Geometry for the Elementary School	3
ELED 205	New Jersey Studies for Teachers	3
ELED 206	Earth Science for Teachers	3
ELED 221	Crafts in the School	3
ELED 303	Crafts and Strategies in Elementary Mathematics	3
LMS 203	Media Selection for Children	3

IV. Professional Development

ELED 302	Consumer Behavior and Education	3
ELED 329	Creativity: The Development of Human Resources	3
ELED 398	Simulated Laboratory Experiences in Elementary Schools	3
LMS 304	Instructional Media and the Curriculum	3
LMS 321	Visual Media—Educational Photography	3
LMS 323	Modern Educational Media	3
LMS 401	Preparation of Media Materials	3
SED 380	Insights and Outlooks in Education	3

ASSOCIATE EDUCATION MEDIA SPECIALIST ENDORSEMENT 22 credits

Undergraduate teaching majors who wish certification as an associate educational media specialist should complete the following courses:

LMS 201	Introduction to Library/Media Services	3
LMS 202	Information Sources	3
LMS 303	Organization of Information Media	3
LMS 397	Library/Media Internship (Practicum)	4
LMS 401	Preparation of Media Materials	3
LMS 402	Services of School Library/Media Center	3

Plus one of the following:

LMS 203	Media Selection for Children	3
LMS 204	Bibliographic Techniques	3
LMS 302	Media Selection for Adolescents	3
LMS 304	Instructional Media and the Curriculum	3

Courses

Unless otherwise noted, all courses are for 3 credits.

ELED 203 The Urban School Experience

Provides prospective teachers with a pre-practicum experience in an urban school. The class meets one 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 school personnel.

ELED 204 Intuitive Geometry for the Elementary School

Provides elementary school teachers with the basic concepts of position, shape and size. An informal study of the fundamental properties which characterize certain significant geometric configurations in the space of our environment.

ELED 205 N.J. Studies for Teachers

Develops the student's understanding of the comprehensive scope of New Jersey studies. Its content is drawn from the several social sciences and natural sciences, incorporating and integrating relevant and significant concepts and generalizations. Provides a content base for prospective teachers preparing to meet state studies requirements and needs.

ELED 206 Earth Science for Teachers

A study of the interdisciplinary basic principles of earth science. Provides a framework for understanding the unique physical characteristics of planet earth. Emphasis on those processes and skills needed by prospective teachers to effectively teach geoscience.

ELED 210 Growth Processes of the School-Age Child

Principles and applications of the growth and thinking processes which affect the school-age child and his learning environment are explored. The course offers an in-depth study of the child from 5-16. An overview of infancy and late adolescence is included.

ELED 221 Crafts in the School

A workshop. The student designs and executes problems in wood, clay, metal, leather and weaving in terms of interests and the general level at which he expects to teach. The relationship of crafts to elementary education is explored.

ELED 230 Explorations in Art

An art workshop designed to enable the elementary major to become familiar with creative art involvement, and the media and techniques necessary to accomplish an understanding of art.

ELED 231 Concepts and Skills of Elementary Mathematics

Students learn, understand, define and organize those concepts they are expected to teach in the elementary grades. Students also plan and organize micro-computer-based mathematical instruction.

ELED 232 Fundamentals of Music

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.

ELED 234 Concepts and Skills in Elementary Social Studies

Identifies the organizing concepts of each of the social-science disciplines: anthropology, economics, geography, history, political science and sociology as they apply to social studies for the elementary school. Highlights the content background necessary for acquiring skills necessary to teach the social studies.

ELED 239 Concepts and Skills in Elementary Science

Emphasis on the identification of basic concepts which describe the natural world. Covers scientific research techniques and current issues in science. Skills of inquiry and gathering and evaluating evidence for making valid descriptions of natural phenomena are pursued. New elementary school science curriculum guides, with their sequential conceptual schemes, are examined in the light of their implications or innovations at all levels.

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ELED 300 The Elementary School

Current and changing perspectives in education as they apply to the organization of the elementary school, including implications for current development and teacher preparation. Team teaching, open classroom, middle school and other experimental settings are explored. Classroom management and its relation to curriculum. Correlation of work in language arts, social studies, science, mathematics, health and physical education and fine and practical arts.

ELED 301 Practicum in Elementary Education

Students are assigned to work in an education center; in addition, they meet with the practicum coordinator weekly for evaluation and coordination. The practicum experience is correlated with certain methods courses and educational psychology. Prerequisite: ELED 300.

ELED 302 Consumer Behavior and Education

Examines the processes involved in consumer behavior. A three-part format is used: information, investigation and application. Methods and techniques of implementing consumer education are pursued through the development of strategies and plans which can be correlated with various grade levels and subject areas.

ELED 303 Crafts and Strategies in Elementary Mathematics

The techniques of conducting a laboratory-oriented elementary school mathematics program. Teachers are trained to identify and diagnose mathematical difficulties and to recognize problems normally encountered in the classroom. Emphasizes prescription; the teacher becomes a diagnostician who is constantly observing, testing and teaching.

ELED 310 Educational Psychology

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 is encouraged to think about personal educational development. Prerequisite: PSY 110

ELED 320 Teaching Language Arts in the Elementary School

Acquaints 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 are critically examined. Attention is given to the effective uses of literature and to current practices in teaching skills such as handwriting, spelling and grammar. Includes also the preparation of lesson plans, program organization and procedures for reporting progress in the language arts.

ELED 324 Teaching Mathematics in the Elementary School

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 covered. The work is related to field experiences. 2 credits

ELED 325 Teaching Art in the Elementary School

Direct experiences in creative art activities, including objectives and philosophy of art education. The developmental stages of children in creative and mental growth are explored. 2 credits

ELED 326 Teaching Music in the Elementary School

The methods of teaching children music as presented by the various music series and an evaluation of materials most commonly used in public schools. 2 credits

ELED 327 Teaching Science in the Elementary School

How to help students develop their ability to introduce scientific facts, ideas and methods of problem-solving in the classroom. 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 is related to field experiences. 2 credits

ELED 328 Teaching Social Studies in the Elementary School

The aims, methods, materials and organization of social studies instruction for the elementary school. Emphasis on interdisciplinary organizational patterns and inquiry methods of instruction. Work is related to field experiences. 2 credits

ELED 329 Creativity: The Development of Human Resources

A study of the relationship of productive thinking to the generation of divergent problem-solving. Further validation of creativity-intelligence interaction is achieved by exploring behavioral concepts of identity consistency and goal satisfaction.

ELED 398 Simulated Laboratory Experiences in Elementary Schools

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 assumes the role of the teacher and is given an opportunity to face, study and solve carefully selected problems under the guidance of the instructor.

ELED 404 Seminar in Student Teaching

The latest trends and developments in elementary education are explored. Problems of classroom management are discussed. This course is conducted during the semester of the student-teaching experience. 1 credit

ELED 405 Seminar in Education

The study of teaching as the student experiences it. Designed to accompany the internship. A variety of curricula and organizational systems are explored.

ELED 499 Independent Study

As approved and to be arranged. 1-3 credits

LMS 201 Introduction to Library/Media Services

Surveys the fields of librarianship and educational media. Concentrates on 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 are explored with a critical examination of the roles of professional, paraprofessional and clerical staff. The types and organizational structures of library/media centers 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 explored.

LMS 202 Information Sources

Examines and critically analyzes the philosophy and principles of providing information to library/media center clients in support of student and curricular needs. Reviews basic reference materials 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.

LMS 203 Media Selection for Children

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

Selects and evaluates 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 is discussed. Prerequisite: LMS 202

LMS 302 Media Selection for Adolescents

Basic principles in the selection and evaluation of print and nonprint media for adolescents. Methods of stimulating reading interests, including the technique of book talks. Emphasis on use of selection aids and on reading and evaluating current printed materials in fields of interest to young people.

LMS 303 Organization of Information Media

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) are examined in relation to print and nonprint materials.

LMS 304 Instructional Media and the Curriculum

A curriculum-centered analysis of the nature and content of instructional materials. Emphasizes the methods of selecting and evaluating nonprint media as they relate to the teaching-learning process.

LMS 324 Visual Media-Educational Photography

Visual literacy and its uses. Application of still photography and motion pictures to vocational and avocational needs of the student to communicate. Uses of simple darkroom techniques and exposure skills. Emphasis on black and white still photography application with an introduction to color.

LMS 323 Modern Educational Media

An examination of the role of educational media in the learning process. Emphasis on nonprint hardware and equipment. The organization and maintenance of media hardware in the library/media center is studied along with actual student utilization of equipment in a laboratory setting. Individual mediated projects which successfully communicate an instructional message are required.

LMS 397 Library/Media Internship

150 hours of supervised practicum (8 weeks). The student spends the time in a school library/media center working as an associate educational media specialist. Prerequisites: Three library/media courses

LMS 401 Preparation of Media Materials

Helps the teacher-library/media specialist prepare simple, hand-made materials such as manipulative teaching devices and bulletin boards, and more sophisticated processes such as photography and production of overhead transparencies. Sources of materials and bibliographic references for other production methods are also explored.

LMS 402 Services of the School Library/Media Center

Organization and administration of the school library/media center with emphasis on 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. Prerequisites: Four library/media courses
4 credits

Department of Movement Sciences and Leisure Studies

Professor—T. Jable

Associate Professors—L. Dye, S. Laubach (chairman), W. Myers, V. Overdorf, S. Silas
Assistant Professors—S. Becker, P. Huber, A. Raidy, V. Igbanugo

Instructor—F. Flaster

Emeritus—M.J. Cheesman, M.L. Fonken

The Department of Movement Sciences and Leisure Studies offers a major program leading to the bachelor of arts degree in physical education, with the opportunity to specialize in adapted physical education, athletic training, elementary and secondary physical education, coaching and sports officiating, exercise physiology 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. Minors are offered in athletic training, adapted physical education, dance, exercise physiology, 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 dance, intramurals and recreation are open to all undergraduates.

Assessments and Retention

Providing students with continued advisement and academic counseling is of major concern to the Department of Movement Sciences and Leisure Studies. The faculty is also concerned about standards of quality in its graduates.

The 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.

MAJOR REQUIREMENTS 32 credits

BIO	116	Basic Anatomy and Physiology I	3
BIO	117	Basic Anatomy and Physiology II	3
PE	170	Introduction to Movement Sciences and Leisure Studies	1
PE	301	Standard First Aid and Personal Safety	2
PE	302	Cardio-Pulmonary Resuscitation	1
PE	320	History and Philosophy of Sport and Physical Activity	3
PE	380	Kinesiology	3
PE	382	Physiology of Exercise	3
PE	388	Adapted Physical Education	3
PE	411	Concepts and Principles of Motor Learning	3
PE	413	Psycho-Social Dimensions of Movement and Sport	4
PE	470	Tests and Measurements	3

PHYSICAL PERFORMANCE SKILLS 26 credits

Aquatics			
PE	229	Swimming	1
Dance			
PE	114	Modern Dance	2
PE	117	Folk, Square and Ballroom Dance	1
Gymnastics and Conditioning			
PE	198	Basic Conditioning	1
PE	201	Tumbling	1
PE	255	Apparatus	2
Team Sports			
PE	208	Basketball	1
PE	210	Football	1
PE	211	Softball	1
PE	213	Volleyball	1
PE	214	Field Hockey	1
PE	215	Soccer	1
Individual and Dual Sports			
PE	200	Tennis	1
PE	206	Track and Field	1
PE	207	Wrestling	1
PE	216	Fencing	1
PE	221	Archery	1
PE	222	Badminton	1
PE	223	Golf	1
PE	230	Recreational Games	1
PE	232	Racquetball	1
PE	239	Bowling and Team Handball	1
PE	240	Jogging and Orienteering	1
PE	265	Self-Defense	1

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PHYSICAL EDUCATION 35 credits CERTIFICATION REQUIREMENTS* (K-12)

PE 210	Developmental Psychology	3
or		
ELED 210	Growth Processes of the School-Age Child	3
PE 383	Curriculum and Teaching Physical Education in the Elementary School	3
PE 384	Curriculum and Teaching Physical Education in the Secondary School	3
PE 391	Practicum I	1
PE 392	Practicum II	1
PE 404	Seminar in Student Teaching	3
EDUC 415	Senior Teaching Internship	12
RLA 329	Foundations of Reading	3
RLA 330	Reading Strategies for the Content Areas	3

In addition, a speech competency test must be passed or an appropriate speech course, recommended by a speech pathologist, must be completed.

Students must have a 2.5 GPA in the major and a 2.25 overall GPA to be eligible for teacher certification.

*PSY 110 and HSC 120 must also be completed for certification, but may be applied to fulfill general studies requirements.

HEALTH EDUCATION 24 credits CERTIFICATION ENDORSEMENT

This certification program is for physical education teaching majors only.

BIO 170	Basic Microbiology	3
BIO 302	Basic Genetics	3
HSC 200	Consumer Health	3
HSC 300	Community Health	3
HSC 320	Nutrition	3
HSC 351	Methods and Curriculum in School and Community Health Education	3
HSC 490	Human Sexuality	3
SOC 120	Marriage and the Family	3

Adapted Physical Education

(Open to all students)

MINOR REQUIREMENTS 18 credits

SPED 201	Psychology and Education of the Handicapped	3
Plus 15 credits selected from among the following:		
PE 393	Physical Education for the Orthopedically Handicapped	3
PE 394	Physical Education for the Mentally Retarded	3
PE 395	Physical Education for Persons with Perceptual Impairment and Social and Emotional Disability	3
PE 396	Programs in Exercise and Recreation for Older Persons	3
REC 300	Introduction to Therapeutic Recreation	3
SED 432	Human Adaptations and Alternatives	3

Prerequisites

BIO 116	Basic Anatomy and Physiology I	3
BIO 117	Basic Anatomy and Physiology II	3
or		
BIO 214	Applied Anatomy and Physiology	3
PE 301	Standard First Aid and Personal Safety	2
PE 302	Cardio-Pulmonary Resuscitation	1
PE 388	Adapted Physical Education	3
PE 411	Concepts and Principles of Motor Learning	3

CONCENTRATION FOR MOVEMENT SCIENCE MAJORS 12 credits

Required Course

SPED 201	Psychology and Education of the Handicapped	3
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Electives

Select nine credits of electives 9

Athletic Training*

MINOR REQUIREMENTS† 23 credits

HSC 320	Nutrition	3
PE 381	Prevention and Care of Athletic Injuries	3
PE 393	Physical Education for the Orthopedically Handicapped	3
PE 397	Athletic Training Internship I	2
PE 398	Athletic Training Internship II	2
PE 415	Advanced Athletic Training	3
PE 497	Athletic Training Internship III	2
PE 498	Athletic Training Internship IV	2
PE 301	Standard First Aid and Personal Safety	2
PE 302	Cardio-Pulmonary Resuscitation	1

Prerequisites

BIO 116	Basic Anatomy and Physiology I	3
BIO 117	Basic Anatomy and Physiology II	3
HSC 120	Current Health Issues	3
PE 380	Kinesiology	3
PE 382	Physiology of Exercise	3
PE 388	Adapted Physical Education	3

*To be an athletic trainer in a public school in New Jersey, teacher certification is required. Students with teacher certification in areas other than physical education must complete the requirements as indicated above.

†The athletic training minor is accredited by the National Athletic Trainers Association.

Dance (Open to all students)

MINOR REQUIREMENTS 19 credits

*PE 131	Modern Dance I	2
*PE 132	Modern Dance II (prerequisite Modern I)	2
*PE 134	Ballet I	2
*PE 135	Ballet II (prerequisite Ballet I)	2
*PE 275	History of Dance	3
PE 373	Choreography (prerequisite 2 semesters of modern dance and/or ballet)	3
PE 376	Dance Performance Workshop I (registration by audition only)	2
PE 473	Labanotation (prerequisite Ballet II and Modern II)	3

*Fulfills the general studies requirement.

Note: First-level courses in ballet or modern dance may be omitted if the student exhibits a high level of technical proficiency and theoretical knowledge. This is determined by written exam and audition only. If high enough technical achievement is established, the student may go on to a second-level course. The credits may be compensated for by enrollment in another dance elective from the list below.

ELECTIVES 28 credits

†PE 117	Folk, Square and Ballroom Dance I	1
PE 118	Folk, Square and Ballroom Dance II	1
PE 133	Introduction to the Principles of Modern Dance Techniques and Choreography	3
PE 217	Modern Jazz Dance Technique (prerequisite Modern I or Ballet I)	2
PE 218	Tap Dance	2
†PE 271	Teaching Dance (prerequisite 2 semesters of technique in Ballet, Modern or Jazz)	2
PE 370	Folk and Square Dance Leadership (prerequisite Folk, Square I, II)	2
PE 375	Advanced Choreography (prerequisite Choreography I)	3
PE 275	History of Dance	3
PE 377	Dance Performance Workshop II	3
PE 474	Laban Movement Analysis	3
URED480	Ethnic Dance	3

†Physical education majors must take PE 117 and PE 271 in place of PE 135.

Exercise Physiology

(Open to all students)

MINOR REQUIREMENTS 24 credits

BUS 201	Introduction to Management	3
HSC 320	Nutrition	3
PE 301	Standard First Aid and Personal Safety	2
PE 302	Cardio-Pulmonary Resuscitation	1
PE 383	Curriculum and Teaching Physical Education in Elementary School	3
PE 481	Leadership Training for Exercise Programs	3
PE 483	Graded Exercise Testing and Prescription	3
PE 484	Exercise Testing and Prescription Internship I	1
PSY 410	Psychological Counseling	3
	Field Experiences or Co-operative Education	2

Note: Upon completing this minor, students are eligible to take the certification test given by the YMCA or the American College of Sports Medicine.

Prerequisites

BIO 116	Basic Anatomy and Physiology I	3
BIO 117	Basic Anatomy and Physiology II	3
PE 411	Concepts and Principles of Motor Learning	3
PE 470	Tests and Measurements in Physical Education	3

CONCENTRATION FOR PHYSICAL EDUCATION MAJORS 16 credits

BUS 201	Introduction to Management	3
HSC 320	Nutrition	3
PE 481	Leadership Training for Exercise Programs	3
PE 483	Graded Exercise, Testing and Prescription	3
PE 484	Exercise Testing and Prescription Internship I	1
PSY 410	Psychological Counseling	3

Recreation and Leisure Studies

(Open to all students)

MINOR REQUIREMENTS 24 credits

PE 396	Programs in Exercise and Recreation for Older Persons	3
REC 110	Foundations and Programs in Recreation	3
REC 290	Camp Counseling	3
REC 291	Recreational Leadership	3
REC 300	Introduction to Therapeutic Recreation	3
REC 390	Field Work in Recreation	3
REC 400	Organization and Administration of Recreation Programs	3
REC 482	Leisure Crafts and Activities in Recreation	3

Prerequisites

PE 230	Recreational Games	1
PE 301	Standard First Aid and Personal Safety	2
PE 302	Cardio-Pulmonary Resuscitation	1

Plus three credits from two of the following areas: aquatics, dance, individual sports, team sports.

Strongly recommended:

BUS 201	Introduction to Management	3
BUS 310	Marketing	3

Concentrations (Open to all students)

EXERCISE AND RECREATIONAL ACTIVITIES FOR OLDER PERSONS 15 credits

HSC 370	Introduction to Gerontology	3
PE 396	Programs in Exercise and Recreation for Older Persons	3
PSY 330	Psychology of Aging	3
REC 300	Introduction to Therapeutic Recreation	3
SOC 392	Sociology of Aging	3

Prerequisites

BIO 116	Anatomy and Physiology I	3
and		
BIO 117	Anatomy and Physiology II	3
or		
BIO 214	Applied Anatomy and Physiology	3
PE 382	Physiology of Exercise	3
PE 388	Adapted Physical Education	3

COACHING 12-14 credits

PE 381	Prevention and Care of Athletic Injuries	3
PE 400	Organization and Administration of Athletics	3

Plus 6-8 credits from among the following:

PE 216	Fencing	2
PE 243	Lacrosse (Women)	2
or		
PE 252	Lacrosse (Men)	2
PE 327	Coaching and Officiating Swimming	2
PE 337	Coaching and Officiating Wrestling	2
PE 344	Coaching and Officiating Soccer	2
PE 345	Coaching and Officiating Field Hockey	2
PE 346	Coaching and Officiating Basketball	2
PE 349	Coaching and Officiating Football	2
PE 351	Coaching and Officiating Baseball (Softball)	2
PE 353	Coaching and Officiating Volleyball	2
PE 361	Coaching and Officiating Gymnastics (Women)	2
or		
PE 362	Coaching and Officiating Gymnastics (Men)	3

Prerequisites

BIO 116	Basic Anatomy and Physiology I	3
BIO 117	Basic Anatomy and Physiology II	3
BIO 214	Applied Anatomy and Physiology	3
PE 301	Standard First Aid and Personal Safety	2
PE 302	Cardio-Pulmonary Resuscitation	1
PE 380	Kinesiology	3
PE 382	Physiology of Exercise	3
PE 411	Concepts and Principles of Motor Learning	3
PE 413	Psycho-Social Dimensions of Sport	4

AQUATICS 12 credits

Required Courses 6 credits

PE 234	Water Safety Instruction	2
PE 236	Administering and Conducting Recreational Water Activities and Programs	2
PE 237	Pool Management	2

Directed Electives 6 credits

Select 6 credits from the following:

PE 125	Basic Skin and Scuba Diving	2
PE 227	Diving	1
PE 228	Synchronized Swimming	1
PE 233	Advanced Life Saving	2
PE 235	Small Craft Certification	2
PE 326	Aquatics for Special Populations	1
PE 327	Coaching and Officiating Swimming	2

OFFICIATING 5-6 credits

The student must receive a rating in three of the following sports:

PE 216	Fencing	1
PE 243	Lacrosse (Women)	2
or		
PE 252	Lacrosse (Men)	2
PE 327	Swimming and Diving	2
PE 337	Wrestling	2
PE 344	Soccer	2
PE 345	Field Hockey	2
PE 346	Basketball	2
PE 349	Football	2
PE 351	Softball or Baseball	2
PE 353	Volleyball	2
PE 361	Gymnastics (Women)	2
PE 362	Gymnastics (Men)	2

Recommended Courses:

PE 301	Standard First Aid and Personal Safety	2
PE 302	Cardio-Pulmonary Resuscitation	1

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Courses

Unless otherwise noted, all courses are for 3 credits.

Movement Sciences

The following courses are open to all students.

PE 100	Target Archery	2
PE 101	Introduction to Badminton	2
PE 102	Bowling	2
PE 103	Golf	2
PE 104	Tennis I	2
PE 105	Tennis II	2
PE 106	Introduction to Fencing	2
PE 107	Tumbling and Gymnastics	2
PE 108	Volleyball	2
PE 109	Combatives	2
PE 110	Karate	2
PE 111	Judo	2
PE 116	Afro-Caribbean Dance	2
PE 117	Folk, Square and Ballroom Dance I	1
PE 118	Folk, Square and Ballroom Dance II	1
PE 119	Basic Movement	2
PE 120	Personal Fitness	2
PE 121	Horseback Riding	2
PE 122	Orienteering	2
PE 123	Backpacking	2
PE 124	Cycling	2
PE 125	Basic Skin and Scuba Diving	2
PE 126	Introduction to Racquetball	2

PE 130 Introduction to the Art of Dance

Elementary technique, improvisation, studies in composition, lectures, films and discussions on dance theory, philosophy and current trends of dance. Provides a basic background with which to appreciate dance as an audience. Geared for students without previous dance experience.

PE 131 Modern Dance I

An introductory course in contemporary dance. Emphasis on developing the student's appreciation of the art of dance through experiential understanding of the movement principles of the Humphrey-Weidman-Limon School of modern dance. 2 credits

PE 132 Modern Dance II

Continuation of the study of Humphrey-Weidman-Limon based modern dance. Relates its principles to teaching, performing, recreation, therapy or life experience. 2 credits

PE 134 Ballet I

Theory and performing technique of classical ballet at the beginning level. Based on the Royal Academy of Dancing system of training. 2 credits

PE 135 Ballet II

Theory and performing technique of classical ballet at the advanced-beginner level. Based on the Royal Academy of Dancing syllabus. 2 credits

PE 150 Personal Implications of Exercise, Fitness and Rest

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 of the effects of exercise, sports and physical activity on 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 170 Introduction to Movement Sciences and Leisure Studies

Familiarizes the student with the movement science and leisure studies program; possible careers that require knowledge about movement sciences and leisure studies. Students visit various professional sites in the field. 1 credit

PE 198 Basic Conditioning

Students learn about and experience conditioning programs for fitness and/or various sports activities. Students work with the professor to design a program suitable for their individual needs. 1 credit

PE 200 Beginning Tennis

Students are introduced to the basic skills of tennis which enable them to play a limited game. 1 credit

PE 201 Tumbling

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, group tumbling and balancing, and the use of the springboard and trampoline are utilized for this purpose. 1 credit

PE 204 Elementary Swimming

This course equips the individual with basic water safety skills and knowledge in order to make one reasonably safe while in, on or about the water. 2 credits

PE 205 Intermediate Swimming

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. 2 credits

PE 206 Track and Field

Designed to introduce events in track and field, their techniques and performance. 1 credit

PE 207 Wrestling

Basic knowledge of various takedowns and offensive and defensive moves. The history of wrestling is discussed as are various exercises, equipment and rules. 1 credit

PE 208 Basketball

Development of the basic fundamentals and skills of the game of basketball. 1 credit

PE 210 Football

Provides future teachers with knowledge and experience in touch and flag football and the basic fundamentals of football as they relate to instructional programs. 1 credit

PE 211 Softball

Develops proficiency in softball skills and a working knowledge of the rules and strategies of the game. 1 credit

PE 212 Baseball

Basic fundamentals of throwing, hitting, running and catching are learned, as well as player responsibilities for each position. 1 credit

PE 213 Volleyball

Designed for students with little or no experience with the game. Fundamental skills, strategy and rules are stressed. 1 credit

PE 214 Field Hockey

An introduction to the basic skills of field hockey which enables students to play the game with reasonable success. 1 credit

PE 215 Soccer

Elementary skills, strategies and rules of soccer are learned by the student. 1 credit

PE 216 Fencing

An introduction to skills and techniques of foil fencing. 1 credit

PE 217 Modern Jazz Dance Technique

Theory and performance of modern jazz dance technique. 2 credits

PE 218 Beginning Tap Dance

A basic course in theory and practice of tap dance, an American art form. 2 credits

PE 221 Archery

Development of skill in target archery and a survey of other popular forms of archery.
1 credit

PE 222 Badminton

Development of skill in badminton, including basic strokes and playing strategy.
1 credit

PE 223 Golf

The development of grip, stance, swing and putting. Elementary game strategy is experienced. Lab fee required.
1 credit

PE 229 Swimming

Students learn basic strokes and water safety skills.
1 credit

PE 230 Recreational Games

Development of performance proficiency in bowling. Recreational games include such activities as shuffleboard, quoits, horseshoes, table tennis, frisbee, non-competitive and "new games."
Lab fee required.
1 credit

PE 232 Racquetball

Fundamental skills, strategies and rules.
1 credit

PE 233 Advanced Lifesaving

Techniques of rescuing individuals from the water. Instruction in self-rescue and the use of equipment. Advanced lifesaving certificates are awarded upon successful completion of criteria established by American Red Cross.
Prerequisite: PE 204 or permission of the instructor
2 credits

PE 234 Water Safety Instructor

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 the American Red Cross.
Prerequisite: PE 233
2 credits

PE 236 Administering and Conducting Recreational Water Activities and Programs

A study of the various recreational activities conducted at pools, lakes and shore areas. The individual gains an understanding of the water and the types of programs best suited to each environment.
2 credits

PE 237 Pool Management

A study of the general principles of pool management. Emphasis on the technical aspects of pool equipment and machinery as well as organizational procedures for directing the pool.
2 credits

PE 238 Speedball

The skills, strategies and rules of speedball are emphasized in this introductory course.
1 credit

PE 239 Bowling and Team Handball

Develops performance proficiency in bowling and introduces skills in team handball. Lab fee required.
1 credit

PE 240 Jogging and Orienteering

An introduction to orienteering skills. Participation in orienteering and jogging. Exercise principles and the mechanics of running are presented.
1 credit

PE 243 Lacrosse (Women)

Introduction to the basic skills, teaching techniques and development of rules and strategies in women's lacrosse. Although the course is taught according to women's strategies and rules, it is also open to men.
2 credits

PE 252 Lacrosse (Men)

Introduction 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.
2 credits

PE 255 Apparatus

The concepts of beginning to advanced gymnastics skills for both men and women, the safety and operation of all gymnastics equipment, progressions for all skills performed on the apparatus and creative utilization of the apparatus.
2 credits

PE 265 Self-Defense

Exposes students to specific situations that could lead to danger and teaches them strategies for eliminating, recognizing and avoiding dangerous situations.
1 credit

PE 271 Teaching Dance

Prepares students to teach dance classes in schools and in recreational organizations. Deals with the "how" and "why" of dance movement.
Prerequisite: PE 131 or 134 or permission of the instructor
2 credits

PE 275 History of Dance

A survey course on dance as part of world history from pre-Christian civilization to contemporary events. Studies from the early fifteenth century (when dance manuals first appeared) are emphasized. Participation in Renaissance and Baroque period dances. Readers of Labanotation may use the language of dance as a research method.

PE 301 Standard First Aid and Personal Safety

Develops an individual's first aid capabilities. Provides the skills of the initial emergency care necessary to sustain and maintain life support until qualified medical personnel arrive. The current American Red Cross instructor's manual and updated tests for standard first aid and personal safety are the bases for the course. Students who successfully complete the course will receive a certification from the American National Red Cross.
2 credits

PE 302 Cardio-Pulmonary Resuscitation

The correct techniques of external chest compression and mouth-to-mouth resuscitation are stressed. Students learn to recognize early warning signs, risk factors and symptoms. Students who successfully pass the course, after being evaluated by an authorized CPR instructor, will receive certification through the American National Red Cross.
1 credit

PE 310 Health and Physical Education Programs in the Elementary School

Focuses on the objectives and philosophy of health and physical education programs in today's elementary schools. Student lesson plans are required. Participation by students in a spectrum of physical education activities. Required for elementary education majors

PE 311 Movement Education

A different approach toward teaching where a more individualized program is set up within the larger group (class). Each student becomes aware of the basic movements of the body in relation to time, space and force around his own rate according to ability level.
2 credits

PE 320 History and Philosophy of Sport and Physical Activity

The study of physical activity and sport from pre-literate times to the present day. Emphasis on nineteenth and twentieth century sports and physical education.

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PE 327 Coaching and Officiating Swimming

Fundamentals of aquatic activities through analyzing strokes and teaching procedures; planning and officiating swimming meets; organizing and administering an aquatic program.

Prerequisite: PE 226 or permission of the instructor
2 credits

PE 328 Coaching and Officiating Track and Field

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.

Prerequisite: PE 225 or permission of the instructor
2 credits

PE 333 Coaching and Officiating Tennis

Designed to make students knowledgeable about the process involved in selecting and coaching a tennis team. In addition, the techniques necessary to become a rated tennis official are included.

Prerequisite: PE 200 or permission of the instructor
2 credits

PE 337 Coaching and Officiating Wrestling

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.

Prerequisite: PE 207 or permission of the instructor
2 credits

PE 343 Coaching and Officiating Softball

Techniques and principles of coaching and officiating softball are emphasized along with laboratory experience for officiating and coaching.

Prerequisite: PE 211 or permission of the instructor
2 credits

PE 344 Coaching and Officiating Soccer

Techniques and principles of coaching and officiating soccer. Laboratory experiences are provided for officiating and coaching.

Prerequisite: PE 215 or permission of the instructor
2 credits

PE 345 Coaching and Officiating Field Hockey

Techniques and principles of coaching and officiating field hockey are stressed. Laboratory experiences are provided for officiating and coaching.

Prerequisite: PE 214 or permission of the instructor
2 credits

PE 346 Coaching and Officiating Basketball

Fundamental and advanced skills as well as theories of offense and defense are learned by the student. Techniques of officiating and organizing and administering a basketball team in a high school program are stressed.

Prerequisite: PE 208 or permission of the instructor
2 credits

PE 349 Coaching and Officiating Football

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.

Prerequisite: PE 210 or permission of the instructor
2 credits

PE 351 Coaching and Officiating Baseball

Techniques of coaching, officiating, purchase and care of equipment and playing areas are emphasized.

Prerequisite: PE 212 or permission of the instructor
2 credits

PE 353 Coaching and Officiating Volleyball

Advanced offensive and defensive team strategies, rules and officiating. Includes laboratory experiences in coaching and officiating. The student is also exposed to various teaching and evaluating techniques.

Prerequisite: PE 213 or permission of the instructor
2 credits

PE 360 Olympic and Rhythmic Gymnastics

Advanced skills culminating in the creation of individual routines in competitive events.

Prerequisite: PE 134 and 201, or permission of the instructor

PE 361 Coaching and Officiating Gymnastics (Women)

Intended for the future coach and/or judge in women's gymnastics. Film analyses and judging tests are offered. Although this course deals specifically with women's rules and events, it is also open to men.

Prerequisite: PE 255 or permission of the instructor
2 credits

PE 362 Coaching and Officiating Gymnastics (Men)

Intended for the future coach and/or judge in men's gymnastics. Film analyses and judging tests are offered. Although this course deals specifically with men's rules and events, it is also open to women.

Prerequisite: PE 255 or permission of the instructor
2 credits

PE 370 Folk and Square Dance Leadership

Advanced skills, including calling square dances, teaching folk dances and organizing programs for folk and square dance events.

Prerequisite: PE 117
2 credits

PE 373 Choreography

Dance composition on a beginning level for teachers, recreation leaders and performers.

Prerequisite: Four credits in modern dance and/or ballet

PE 375 Advanced Choreography and Dance Production

Choreography on an advanced level. Study of production techniques for dance. Field experience choreographing and producing a dance concert.

Prerequisite: PE 373

PE 376 Dance Performance Workshop I

Performance on an intermediate/advanced technical level and choreography in a workshop situation. Emphasizes field experience performing, choreographing and producing a dance concert for educational purposes.

Prerequisite: Registration by audition only.
2 credits

PE 377 Dance Performance Workshop II

A continuation of Dance Performance Workshop I. The student takes a role of creative leadership in choreography and production.

2 credits

PE 380 Kinesiology

An analysis of human motion: articulation of the various body joints, functions of muscles. Analysis of physical education activities from these perspectives.

Prerequisites: BIO 210 and 211

PE 381 Prevention and Care of Athletic Injuries

Lecture and laboratory work concerned with the prevention and care of common athletic injuries: 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.

Prerequisites: BIO 210-211, PE 380

PE 382 Physiology of Exercise

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.

Prerequisites: BIO 210-211, PE 380

PE 383 Curriculum and Teaching Physical Education in the Elementary School

The principles of curriculum development in elementary school physical education programs. Students learn how to teach physical education activities designed for elementary school children. Taken concurrently with PE 391.

PE 384 Curriculum and Teaching Physical Education in the Secondary School

The physical-education teacher's role in facilitating the adolescent student's growth and development through movement activities. A variety of teaching styles are explored. Includes administrative duties and responsibilities of a physical-education teacher at the secondary level. A field experience in the secondary school accompanies this course.

PE 385 Organization and Administration of Intra- and Extramural Programs

Concentrates on the organization of tournaments, student leadership, budget and scheduling of co-curricular events. 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.

1 credit

PE 386 Rhythmic Activities and Games for Children

Activities and approaches to creative movement and basic rhythmic experiences. Games, relays and related group activities appropriate for children's developmental needs are covered.

2 credits

PE 388 Adapted Physical Education

A general study and application of adaptive techniques and procedures for handicapped children in physical education. A practicum is taken concurrently with this course.

Prerequisites: BIO 210, 211

PE 391 Practicum I

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 individuals and small groups and the teaching of the entire class.

1 credit

PE 392 Practicum II

This experience in the school is correlated with methods of teaching physical education and human movement. Primarily devoted to teaching classes and small groups.

Prerequisite: PE 391

1 credit

PE 393 Physical Education for the Orthopedically Handicapped

Familiarizes prospective teachers with various types of physical handicaps. Exercises, games and activities for the correction or treatment of specific disabilities. A 15 to 20-hour practicum is involved.

Prerequisite: PE 388

PE 394 Physical Education for the Mentally Retarded

Identifies cause and nature of mental retardation. Practice in implementing group and individual physical-education programs for the mentally retarded child. Practicum required.

Prerequisite: PE 388

PE 395 Physical Education for the Perceptually Impaired and/or Emotionally Disturbed

Identifies nature and cause of impairment. Practice in implementing physical education programs for impaired persons. Practicum required.

Prerequisite: PE 388

PE 396 Programs in Exercise and Recreation for Older Persons

Prepares students to plan and conduct basic physical activity and exercise programs for the elderly. Although the emphasis is on exercise routines and fitness programs, students also learn to lead older adults in rhythmic and dance activities and recreational games. A three-week training period is followed by a twelve-week practical experience at a senior citizen site (nutrition site, day care center or some other senior citizen center). Weekly seminars are held in conjunction with the practical experiences.

PE 397 Athletic Training Modalities

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 required.

Prerequisite: PE 381 with a grade of "A" or "B"

2 credits

PE 398 Biomechanics of Athletic Injuries

The second practical experience in the athletic training room under the supervision of a qualified athletic trainer. 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 required.

2 credits

PE 400 Organization and Administration of Athletics

Constructed as a coordinator of all courses dealing with the program of athletics. Emphasis on the organization of the program and its administration in relation to all personnel involved.

PE 404 Seminar in Student Teaching

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 is conducted during the semester of the student-teaching experience.

PE 411 Concepts and Principles of Motor Learning

Acquaints the student with the concepts and principles involved in motor learning with particular consideration of the implications for teaching.

Prerequisites: BIO 210, 211

PE 413 Psycho-Social Dimensions of Sport

A study of sport in relation to the concepts, theories and principles of psychology and sociology. Enables the student to understand the human organism's involvement in sport and physical activity and the relationship of sport to culture and society.

Prerequisites: PSY 110, SOC 110

4 credits

PE 415 Advanced Athletic Training

Lecture and laboratory experiences concerned with care and prevention of athletic injuries using advanced techniques of treatment and rehabilitation. Includes professional ethics, measurement and evaluation, current research, advanced exercise and advanced taping techniques.

Prerequisites: PE 381, 393, HSC 320

PE 470 Tests and Measurements

A study of the role of and evaluation in physical education. The organization and administration of a testing program. Also, appropriate statistical methods used in a testing program.

PE 473 Labanotation

Reading and dancing repertory from Labanotation scores. Helps students understand movement, improve performing ability, provide written and spoken terminology.

Prerequisites: PE 132, 135

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PE 474 Laban Movement Analysis

Analysis and application of Laban effort-shape theory through movement, experience and observation.

PE 480 Senior Seminar

An elective course for senior majors. Specialized subjects in physical education and recreation are developed by the instructor and the student.

PE 481 Leadership Training in Exercise Programs

Students learn to organize, lead and supervise programs of physical exercise and conditioning in industry, business, recreation, education and athletic settings. Also, how to use results of diagnostic tests to prescribe appropriate activities for a wide variety of populations.

PE 482 Advanced Exercise Physiology

Advanced concepts concerning the physiological adaptations of man and animals to exercise. With these concepts established, the student then explores the more controversial issues of exercise physiology.

PE 483 Exercise Stress Testing and Prescription

Theoretical information about the administration and application of a graded exercise stress test.
1 credit

PE 484 Exercise Testing and Prescription Internship I

Practical information about the administration and application of a graded exercise stress test and an exercise prescription.
1 credit

PE 485 Exercise Testing and Prescription Internship II

A second-level experience in which students obtain practical information about the administration and application of a graded exercise stress test and an exercise prescription.
1 credit

PE 486 Exercise Testing and Prescription Internship III

A third-level experience in which students obtain practical information about the administration and application of a graded exercise stress test and an exercise prescription.
1 credit

PE 497 Fieldwork in Athletic Training

An advanced practical experience in which students combine all the skills and techniques of Internship I and II, and are taught how to function as the primary sports trainer for a team other than football. Also includes the selection, construction and fitting of orthotics. Minimum of 200 hours.
2 credits

PE 498 Seminar in Athletic Training

Culminating practicum. The student serves as an athletic trainer in a designated local high school in cooperation with the local and college supervisor. Minimum of 200 hours.
2 credits

PE 499 Independent Study

As approved and to be arranged.
1-3 credits

Leisure Studies

REC 110 Foundations in Leisure Studies

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

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

A study of methods, materials and skills necessary for persons preparing to assume leadership roles in recreation programs.

REC 292 Programs in Recreation

The study of public, voluntary and private recreation programs sponsored by governments, education, industry and other organizations. Considerations are given to administration, financial support, facilities and leadership.

REC 300 Introduction to Therapeutic Recreation

Provides an in-depth study of therapeutic recreation for the ill and handicapped in various settings. Emphasis on the role of recreation as a means of therapy in rehabilitation in these settings. Internship experience is undertaken.

REC 305 Community Recreation

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

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

Stresses the acquiring of knowledge and understanding of various social recreation programs and activities.

REC 310 Recreation for the Aging

A study of the characteristics and needs of the aging and how recreation programs can best meet these needs. Internship experience provided.

REC 390 Field Work in Recreation

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

The exploration of major problems and practices in the organization and administration of recreational programs in various settings.

REC 481 Recreation for Adults

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 is a major part of the course.

REC 482 Leisure Crafts and Activities in Recreation

A study of leisure crafts through creative activities with a multiplicity of craft media. Focuses on program implementation with various types of groups.

Department of Special Education

Professors—L. Hayes, L. Stola, M. Swack (chairman), W. Younle
Associate Professor—E. Abare
Assistant Professors—G. Ford, S. Kuveke, K. Leicht, S. Riggs, D. Samuels
Instructor—D. Newman

The Department of Special Education offers 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.

Students are exposed to instructional materials used in the education of exceptional children and are presented with various modes of curriculum planning for these 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 also receive elementary certification upon graduation.

Entrance Requirements

Students who wish to major in special education must present documented evidence of having worked with handicapped children for 120 clock hours in non-public schools.

Note: A teacher aide experience is arranged, usually during the first semester of the junior year. It is called the pre-practicum experience with no course credit given. One full day must be kept open to accommodate this requirement.

MAJOR REQUIREMENTS		36 credits
PED 201	Psychology and Education of the Handicapped	3
SPED 301	Education of the Trainable Mentally Retarded	3
SPED 302	Education of the Educable Mentally Retarded I	3
SPED 303	Education of the Educable Mentally Retarded II	3
SPED 304	Teaching Reading to the Mentally Retarded	3
SPED 305	Art Activities in Special Education	3
*SPED 320	Practicum in Special Education	3
SPED 410	Counseling and Vocational Guidance for Handicapped Children	3

SPED 411	Prescriptive Teaching	3
SPED 412	Education of the Emotionally and Socially Maladjusted	3
SPED 413	Education of the Neurologically Impaired and Physically Handicapped	3
RLA 423	Advanced Reading Techniques	3

***Note:** 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 public school, private or state institution or government agency.

The Officer of Field Laboratory Experience, or the Department of Special Education, may be contacted for further information.

DIRECTED ELECTIVES 13 credits

BIO 214	Applied Anatomy and Physiology	4
PATH 261	Speech Disorders	3
PE 388	Adapted Physical Education	3
PSY 210	Developmental Psychology	3

CERTIFICATION REQUIREMENTS 24 credits

EDUC 403	Culminating Field Experience	8
ELED 310	Educational Psychology: Adaptations and Interventions in the Classroom	3
HSC 120	Current Health Issues	3
PSY 110	General Psychology	3
SPED 404	Seminar in Student Teaching	1

Plus one human relations course from the list given on p. 37

Plus one professional preparation course from the list given on p. 38

Note: Credits for PSY 110 and HSC 120 may be applied toward partial fulfillment of liberal studies requirements.

ELEMENTARY EDUCATION ENDORSEMENT 17 credits

This certification program is for special education majors only.

EC 351	Math in Early Childhood Education	3
ELED 300	The Elementary School	3
ELED 320	Teaching Language Arts in the Elementary School	3
ELED 326	Teaching Music in the Elementary School	2
ELED 327	Teaching Science in the Elementary School	2
ELED 328	Teaching Social Studies in the Elementary School	2

SPECIAL EDUCATION ELECTIVE 21 credits

This course sequence is for students in another teaching major who wish to take courses in special education.

SPED 201	Psychology and Education of the Handicapped	3
SPED 301	Education of the Trainable Mentally Retarded	3

SPED 302	Education of the Educable Mentally Retarded I	3
SPED 303	Education of the Educable Mentally Retarded II	3
SPED 304	Teaching Reading to the Mentally Retarded	3
SPED 410	Counseling and Vocational Guidance for Handicapped Children	3
SPED 411	Prescriptive Teaching	3

Courses

Unless otherwise noted, all courses are for 3 credits.

SPED 201 Psychology and Education of the Handicapped

A study of the social, emotional, physical and learning characteristics of handicapped children. Methods of diagnosis and differentiation, curriculum and teaching techniques, materials, resources and their employment for education. Psychological basis of the suitable curriculum. Introductory course for special education majors.

SPED 205 Early Childhood Curriculum for Handicapped Children

An in-depth study of the characteristics and needs of the pre-school handicapped children. Emphasis on teaching techniques, materials and programs most appropriate for these children.

SPED 210 Education of the Profoundly Retarded

Provides students with the developmental model of training and educating profoundly retarded children and adults. Examines homes, schools and institutions as well as new alternatives for delivering care.

SPED 215 Rights of the Handicapped

Litigation and legislation relating to the rights of handicapped persons considered within a sociological and educational context. Resultant ideologies and issues are explored in relation to the changing role of the special educator.

SPED 301 Education of the Trainable Mentally Retarded

Methods for educating mentally retarded children who would not benefit from classes for the educable mentally retarded. Instructional materials, techniques and resources. Study of existing programs on a state and national level. One-day per week practicum in a special education classroom of a participating school is included.

Prerequisite: SPED 201

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SPED 302 Education of the Educable Mentally Retarded I

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. A one-day per week practicum in a special education classroom of a participating school is included.

Prerequisite: SPED 201

SPED 303 Education of the Educable Mentally Retarded II

Methodology and curriculum for the mentally retarded at junior and senior high levels. Consideration of employment opportunities. Job analysis, guidance, and placement procedures. A one-day per week practicum in a special education classroom of a participating school is included.

Prerequisite: SPED 302

SPED 304 Teaching Reading to the Mentally Retarded

Acquaints teachers of the mentally retarded with techniques of teaching reading. Emphasis on the effective use of these techniques to meet the special needs of the mentally retarded. Recent developments in the treatment of children with learning and perceptual problems. A one-day per week practicum in a special education classroom of a participating school is included.

Prerequisite: SPED 201; corequisite: SPED 302

SPED 305 Art Activities in Special Education

Art activities as modes of perception and integration fundamental to human growth and learning. Art forms suitable for the teaching of the handicapped.

Prerequisite: SPED 201

SPED 320 Practicum in Special Education

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.

Prerequisites: SPED 302 and the pre-practicum experience; corequisite: SPED 303

SPED 404 Seminar in Student Teaching

Current trends and developments in public education are explored. Particular attention is given to classroom management and other problems confronting student teachers. Conducted during the semester of the student teaching experience.

Corequisite: SPED 403

1 credit

SPED 410 Counseling and Vocational Guidance for Handicapped Children

A study of existing rehabilitation resources in the community. The contributions and services of the rehabilitation team to the child and his family. The availability of these services and guidance as to their uses are stressed.

For seniors only

SPED 411 Prescriptive Teaching

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. A practicum comprises a part of this course.

For seniors only

SPED 412 Education of the Emotionally and Socially Maladjusted

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 have the 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.

For seniors only

SPED 413 Education of the Neurologically Impaired and Physically Handicapped

Presents learning problems stemming from physical handicaps and neurological impairment in children with basically normal intelligence and sensory abilities. Includes therapies, teaching techniques, procedures for assessment of progress and an exploration of basic and recent literature.

For seniors only

SPED 430 Education of the Exceptional Child

Planning and organizing instructional materials and activities. The use of environmental resources in working with mentally, physically or emotionally exceptional children. The adaption of programs to the needs of exceptional children in regular classes and in special groups. For non-special education majors.

SPED 499 Independent Study

As approved and to be arranged.

1-3 credits

The School of Health Professions and Nursing

Suzanne Law Hawes, Dean
Office: Hunziker Wing 120

The School of Health Professions and Nursing offers bachelor's degrees in community health education, nursing and speech correction.

Programs in this school prepare students for professional practice and educational roles in health care agencies and schools. The school also offers courses in health for students in other majors.

Department of Health Science

Professor: S. Lisbe (chairman), M. Marshall
Associate Professor: A. Hudis
Assistant Professors: K. Bauer, G. Sorock, P. Williams
Instructors: K. Gelmacher, J. Levitan, D. Watter

The Department of Health Science offers a major program leading to a bachelor of science degree in community health and/or school health education. Certification in school health education is also available for physical education majors. The major in community health is designed to prepare individuals to work with professionals in health and allied health fields and with the community in planning, implementing, and evaluating the educational component of community health services. Health educators are employed by local, state, federal and voluntary health agencies, community health centers, hospitals, clinics, health maintenance organizations and private industry.

MAJOR REQUIREMENTS 45-52 credits

HSC 200	Consumer Health	3
HSC 300	Community Health	3
HSC 310	Health Care Systems	3
HSC 315	Human Diseases	3
HSC 322	Nutrition for Health Professionals	3
HSC 330	Human Behavior and Health Education	3
HSC 351	Methods and Curriculum in School and Community Health Education	3
HSC 361	Research Analysis and Evaluation in Health	3
HSC 400	Epidemiology	3
HSC 450	Health Administration	3
HSC 490	Human Sexuality	3
HSC 491	Alcohol and Drug Abuse Problems	3
HSC 497	Field Work in Community Health	8 or 15
HSC 498	Seminar in Community Health	1

DIRECTED ELECTIVES 29 credits

BIO 112	General Anatomy and Physiology I	4
BIO 113	General Anatomy and Physiology II	4
BIO 170	Basic Microbiology	3
BIO 302	Human Genetics	3
CHEM 120	Concepts of Chemistry	3
HSC 360	Biostatistics	3
PSY 110	General Psychology	3
PSY 210	Developmental Psychology	3
SPAN 110	Basic Spanish I (basic Spanish for health professionals)	3

TEACHER CERTIFICATION REQUIREMENTS 27 credits

EDUC 333	Individualized Instruction	3
EDUC 403	Culminating Field Experience	8
HSC 321	Nutrition in Early Childhood (in lieu of HSC 322)	3
HSC 404	Seminar	1
LMS 323	Modern Educational Media	3
RLA 329	Foundations of Reading	3
RLA 330	Reading Strategies for the Content Areas	3
URED 482	The Inner City Child and His Environment	3

Courses

Unless otherwise noted, all courses are for 3 credits.

HSC 120 Current Health Issues

Health problems affecting college students are selected by the students and discussed on a problem-solving basis. Special emphasis on human sexuality, mental health, stimulants and depressants, environmental health and consumer health.

HSC 200 Consumer Health

Consumer problems viewed in terms of economic, social, psychological and biological consequences. Topics include health insurance, life insurance, Medicaid, over-the-counter drugs, cosmetics, health fads and quackery, consumer protection agencies, sales frauds and evaluation of products.

HSC 210 Women's Health

Facts, feelings and practical aspects of women's attitudes toward themselves and their bodies. Topics 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, menopause, nutrition, aging, rape and self-defense.

HSC 300 Community Health

Organization and function of community health agencies and their relation to the school and community health programs. Includes discussion on chronic and communicable disease, pollution, sanitation programs, accidents, food handling and preservation, and consumer health. Includes field work.

HSC 310 Health Care Systems

An overview of our present health care system. Class discussions and reading assignments focus on identifying the changing roles of traditional health service organizations and health professionals, and the sociopolitical and technical pressures that lead to these changes. In addition, the more recently developed health service and planning agencies and health professional occupations are identified and discussed in terms of their efforts to restructure the organization, finance and delivery of health services.

HSC 315 Human Diseases

The physical and social determinants of the major diseases affecting U.S. citizens, especially New Jersey residents. Symptomatology, sequelae and appropriate intervention strategies are identified and discussed.

HSC 320 Nutrition

A foundation study of human nutrition emphasizing its relationship to optimum physical and emotional health. Includes basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control.

HSC 321 Nutrition in Early Childhood

Basic nutrition concepts and knowledge related to the particular needs of students in early childhood education. Emphasis on educational application, especially methodology, analysis and development of nutrition programs in schools and other child development programs.

HSC 322 Nutrition for Health Professionals

Introduction to human nutrition that emphasizes the application of basic nutrition information in the community and health delivery system. Includes fundamentals of nutrition science, relationship between nutrition and individual well-being, assessment of nutrition status, nutrition through the life span, consumer nutrition concerns and therapeutic nutrition. Prerequisite: Either chemistry, biology, microbiology or permission of the instructor.

HSC 330 Human Behavior and Health Education

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 351 Methods and Curriculum in School and Community Health Education
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 Biostatistics
An elementary exposition of statistics with emphasis on its application to health sciences. Includes inferential as well as descriptive statistics; covers correlation, regression, binomial and normal distributions, estimation, confidence intervals, testing of hypotheses for population means, t test and Chi-square test.

HSC 361 Research Analysis and Evaluation in Health
Basic aspects of research methodology, basic source materials in health and public health. Experiences in critical reading of professional literature. Basic statistical techniques.
Prerequisite: HSC 360

HSC 370 Concepts and Issues of Aging
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 400 Epidemiology
Epidemiology of disease; how diseases are spread, prevented and controlled. Introduction to the principles of epidemiologic investigation.
Prerequisites: HSC 360, 361

HSC 404 Seminar in Student Teaching
Latest trends and developments in health education are explored. Problems of classroom management are discussed. This course is conducted during the semester of the student-teaching experience.

HSC 450 Health Administration
Focus is on acquiring health service administration skills. Classroom discussions and reading assignments introduce the student to modern health care management concepts and techniques. Visits to various health service delivery organizations develop a better understanding of the inter-related and interdependent nature of the health care system.
Prerequisite: HSC 310

HSC 470 Health Aspects of Aging
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
An interdisciplinary approach to the analysis of theory and practice of community health resources which offer health and social services to the aging. Examines health and health related programs and establishes relationships between need and services.

HSC 475 Nutrition and the Elderly
The present nutritional status of the elderly, factors which influence their nutritional status, nutritionally related health problems of the elderly, nutritional approach to increase longevity, and programs and policies for improving the nutritional status of the aged.

HSC 490 Human Sexuality
The biological, sociological, psychological and educational aspects of human sexuality. Anatomy and physiology of reproduction and sexual response. 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
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 are examined. Consultants present topics unique to their profession.

HSC 497 Fieldwork in Community Health
This quarter course provides the student with a supervised, full-time internship in a health sector organization. The student is encouraged to apply his knowledge and to test organizational theory in the working environment. Taken concomitantly with HSC 498; open only to senior community health majors.
8 or 15 credits

HSC 498 Seminar in Community Health
This quarter course focuses on the issues and problems confronting health professionals in our contemporary health care system. Discussions concentrate on developing appropriate strategies that lead to the feasible solutions of problems encountered during student internships. Taken concomitantly with HSC 497; open only to senior community health majors.
1 credit

HSC 499 Independent Study
As approved and to be arranged.
1-3 credits

Department of Nursing

Professors: S.L. Hawes, D. Williams
Associate Professors: A. Cerchio, H. Hakerem, G. Harris, H.D. Macjorowski
Assistant Professors: I. Bradstreet, K. Connolly, D. D'Amico, I. Foti, J. Leonard, M. McElgunn, B. Newport, L. Pedlar, S. Sattin, O. Sobolak, K. Sullivan
Instructors: A. Capo, B. Kellum

The Department of Nursing is nationally accredited by the National League for Nursing. Its primary mission is the education of students who will serve as professional nursing practitioners in health care delivery settings. Offerings of the department include a major in professional nursing, supported by a concentration in the biological, physical and social sciences and a broad base of liberal studies courses. Graduates of this program are awarded a bachelor of science degree with a major in nursing and a minor in the biological sciences. Upon completion of the program, graduates are eligible to take the licensure examination administered by the New Jersey Board of Nursing to become a registered professional nurse (R.N.).

All nursing science courses include a clinical laboratory component in which faculty guide students in the development of knowledge and skills in a variety of health care settings. An on-campus learning center provides a large inventory of audio-visual materials, video cameras, control room and hospital equipment and supplies for student laboratory experiences.

Entrance Requirements

In addition to the College's admissions requirements, prospective nursing majors are required to take both a biology and chemistry course, with laboratory, in high school. Candidates must demonstrate satisfactory achievement in high school, and on the Scholastic Aptitude Test (CEEB-SAT), as well as place in the upper 1/3 of their high school graduating class.

Students can be admitted to the program as freshmen or as transfers prior to sophomore year. Transfer students and students changing majors are eligible for admission following application and review by the department. It should be noted that students must have completed BIO. 170, 212-213 and PSY 110, 210 before being permitted to enroll in Nursing Science I.

Registered nurse students from diploma and associate degree programs may apply for admission following a transcript evaluation. Course deficiencies must be remedied prior to registering for Nursing Science I.

All registered nurse students are required to take Nursing Science I, II and VI. Nursing Science III, IV and V may be challenged by means of examination, both objective and clinical. Students must receive a "C" grade or better on the objective challenge examination in order to take the clinical

challenge examination. Students who do not succeed may register for the course. Prior to taking the Nursing Science V examination, all directed electives must be completed; registered nurses are urged to complete the directed electives prior to beginning Nursing Science I. Challenge examinations are offered during the pre- and summer sessions following the spring completion of Nursing Science II.

The Nursing Department maintains performance standards by which students are reviewed for continuing eligibility as majors. An academic grade point average of 2.0 in the major and directed elective courses must be achieved by the end of the sophomore year.

The curriculum plan which follows is currently being revised.

MAJOR REQUIREMENTS		58 credits
NUR 201	Nursing Science I	8
NUR 202	Nursing Science II	8
NUR 301	Nursing Science III	10
NUR 302	Nursing Science IV	10
NUR 401	Nursing Science V	10
NUR 402	Nursing Science VI	10
NUR 450	Nursing Research	2

DIRECTED ELECTIVES		35 credits
BIO 170	Basic Microbiology	3
BIO 212	General Anatomy and Physiology I	4
BIO 213	General Anatomy and Physiology II	4
BIO 302	Basic Genetics	3
BIO 312	Advanced Anatomy and Physiology	4
CHEM 164	College Chemistry	4
CHEM 165	Organic Biochemistry	4
PSY 110	General Psychology	3
PSY 210	Developmental Psychology	3
PSY 430	Social Psychology	3

Courses

NUR 201 Nursing Science I

(Fall semester—sophomore year)

The evolution of nursing; Concepts of primary preventive nursing are utilized to promote the health of clients from newborn 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.

Prerequisites: BIO 170, 212, 213, PSY 110
8 credits

NUR 202 Nursing Science II

(Spring semester—sophomore year)

Enhances the scientific knowledge and interpersonal skills developed in Nursing Science I. As the individual moves along the developmental 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 knowledge and interpersonal skills are introduced and applied in client assignments and selected community experiences.

Prerequisites: NUR 201, CHEM 164, PSY 210
8 credits

NUR 301 Nursing Science III

(Fall semester—junior year)

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. Focus on important concepts of physiological and psychosocial 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.

Prerequisites: CHEM 165, NUR 202
10 credits

NUR 302 Nursing Science IV

(Spring semester—junior year)

Continuation of Nursing Science III with specific concepts involving cardiovascular maladaptations.

Prerequisites: BIO 302, NUR 301
10 credits

NUR 401 Nursing Science V

(Fall semester—senior year)

Continuation of Nursing Science IV with specific concepts involving endocrine, metabolic and neurological maladaptations.

Prerequisites: BIO 312, NUR 302
10 credits

NUR 402 Nursing Science VI

(Spring semester—senior year)

Continuation of Nursing Science V with emphasis on the leadership responsibilities of the professional nurse. 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.

Prerequisite: NUR 401
10 credits

NUR 450 Nursing Research

(Fall semester—senior year)

Designed to assist the student in understanding and utilizing research concepts and methods by developing the student's ability to analyze, criticize and interpret research. The process of problem identification, conceptualization, design, sampling data collection and analysis is explored. A published nursing research report is critiqued.

Prerequisite: Nursing Science IV. Suggested supporting courses: Statistics, philosophy or ethics.

2 credits

Department of Speech Pathology

Professors: F. Cohen, W. Hill (chairman)

Associate Professor: E. Chopek

Assistant Professors: A. Freund, J. Hsu, A. Oratio, G. Walsh

The undergraduate program leading to a bachelor of arts in speech correction requires that students complete 30 credits of liberal education courses, 36 credits in the major and 7 credits in directed electives. If a student wishes to seek N.J. certification to teach in the public schools, 34 credits of professional education sequence courses must be completed.

Ninety hours of supervised clinical experience must be completed in the college speech and hearing clinic. An additional sixty hours may be completed during student teaching. Any student who does not wish to be certified to teach in the schools must complete these 60 hours in the clinic. A total of 150 hours of practicum experience is required for graduation.

Though not required, the following 12 credits of reading are strongly recommended for speech pathology majors:

RLA 329	Foundations of Reading	3
RLA 423	Advanced Reading Techniques	3
RLA 495	Reading Improvement and Practice	6

WILLIAM PATERSON COLLEGE

MAJOR REQUIREMENTS 36 credits

PATH 160	Phonetics	3
PATH 161	The Nature of Speech, Language and Communication Systems	3
PATH 205	Speech Laboratory 1 (Observation-Teaching)	3
PATH 262	Orientation to Speech Pathology and Audiology	3
PATH 263	Articulation Disorders	3
PATH 302	Speech Laboratory Continued (1 each)	3
PATH 361	Anatomy and Physiology of the Auditory and Vocal Mechanism	3
PATH 363	Introduction to Audiology	3
PATH 365	Voice Disorders in Children	3
PATH 366	Language Theory and Therapy	3
PATH 462	Auditory Rehabilitation	3
PATH 463	Stuttering and Other Rhythm Disorders	3

DIRECTED ELECTIVES 7 credits

BIO 214	Applied Anatomy and Physiology	4
SPED 201	Psychology and Education of the Handicapped	3

STATE CERTIFICATION (SPEECH CORRECTION) REQUIREMENTS 34 credits

Professional Education Sequence

28 credits		
EDUC 403	Culminating Field Experience	12
ELED 310	Educational Psychology: Adaptations and Interventions in the Classroom	3
HSC 120	Current Health Issues	3
PATH 404	Seminar in Student Teaching	1
PATH 425	Teaching Speech	3
PATH 426	Organizing Speech and Hearing Programs	3
PSY 110	General Psychology	3

Education Electives 6 credits

Choose one human relations course and one professional preparation course from the list on p. 35.

The following courses are strongly recommended:

PATH 364	Voice and Speech Production	3
PATH 367	Sign Language	3
PATH 368	Communication Problems of the Elderly	3
PATH 369	Community Hearing Screening Programs	3

Courses

Unless otherwise noted, all courses are for 3 credits.

PATH 160 Phonetics

A study of sounds, stress, phrasing and intonation as they relate to American English speech. The International Phonetic Alphabet is studied as a system for record-

ing pronunciation and analyzing speech patterns. Practice in kinesiological application of sounds, written transcriptions and auditory analysis of speech patterns is emphasized.

PATH 161 The Nature of Speech, Language and Communication Systems

A general orientation to the study of human language communication. Topics include 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 bilingualism, the relationship between the written and spoken system.

PATH 205 Speech Laboratory I

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. Taken in conjunction with PATH 263.

PATH 261 Speech Disorders

A course for non-speech-pathology majors which 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 is considered.

PATH 262 Orientation to Speech Pathology and Audiology

An introduction to the historical development, present scope and trends in speech pathology and audiology. 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 included.

PATH 263 Articulation Disorders

A study of the normal acquisition and development of articulation and of etiologies, evaluation and therapy procedures for articulation disorders.
Prerequisite: PATH 262

PATH 302 Speech Lab Continuing

This course offers the opportunity for the student to learn the essential elements of effective clinical interaction and to experience basic therapeutic processes in modifying articulatory behaviors.
Prerequisite: PATH 205

PATH 361 Anatomy and Physiology of the Auditory and Vocal Mechanism

Anatomy and physiology of the respiratory, articulatory, vocal and auditory mechanisms and their application to speech and hearing disorders.
Prerequisite: BIO 214

PATH 363 Introduction to Audiology

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

A study of the speech mechanism and its relationship to the development and mastery of basic breathing, vocal and articulation skills. Students in speech pathology, communication, education, business, theater, radio, singing and allied fields are encouraged to master these skills. Special attention given to individual voice, articulation and communication problems. Conference and practice hours to be arranged.

PATH 365 Voice Disorders in Children

Functional and organic voice disorders in children. Etiology, classification, methods of diagnosis and evaluation, therapy methods and techniques.
Prerequisites: PATH 361

PATH 366 Language Theory and Therapy

Normal and abnormal language systems and behavior. Topics include cognition and language, language analysis, normal development, application of developmental psycholinguistics to language therapy.
Prerequisite: PATH 161

PATH 367 Sign Language I

Designed to teach sign language and the manual alphabet to health professionals, speech pathologists, rehabilitationists and teachers of children with special problems so they can work with children and adults who have a need for an alternate means of communication.

PATH 368 Communication Problems of the Elderly

Covers normal communication systems, psychological and neuro-physiological correlates of aging, effects on communication ability due to hearing loss, pathological processes, alterations in environment and lifestyle and the roles of rehabilitation specialists.

PATH 369 Community Hearing Screening Program

Supervised experience in a community hearing screening program with age levels from pre-school children to the geriatric population.

Prerequisite: PATH 363 or CODS 504

PATH 370 Sign Language II

Designed to further strengthen the manual communication skills of health professionals, speech pathologists, rehabilitationists and teachers of children with special problems.

Prerequisite: PATH 367

PATH 410 Language Development and Speech Improvement

The study of normal speech and language acquisition and speech and language problems for non-speech pathology majors. Consideration is given to: 1) language acquisition, improvement and change; 2) linguistic and phonetic elements of oral language with emphasis on preschool and early childhood developmental language programs; 3) fundamental concepts of articulation and voice production; 4) basic understanding of severe speech problems.

PATH 414 Community Hearing Screening Programs: Audiology Lab

Supervised experience in community hearing screening programs with groups representing age levels from pre-school children to the geriatric population.

PATH 425 Teaching Speech

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 reviewed and discussed. Special attention given to materials used with school-age children who have speech and language problems.

PATH 426 Organizing Speech and Hearing Programs

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 are considered.

Prerequisite: PATH 425

PATH 462 Auditory Rehabilitation

Principles of therapy and clinical techniques for the development of speech and language for the hearing impaired. Management procedures in speech and language rehabilitation and/or rehabilitation include auditory training, speech-reading and selection and use of appropriate amplification systems.

Prerequisite: PATH 463

PATH 463 Stuttering and Other Rhythm Disorders

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

As approved and to be arranged.
1-3 credits

The School of Humanities

Richard Atnally, Dean
Office: Matelson Hall 362

The School of Humanities offers degree programs in African and Afro-American studies, English, foreign languages, history, liberal studies, and philosophy and an endorsement program in bilingual/bicultural education. In addition to these programs, designed for students interested either in pursuing professional careers, including teaching, or in developing a future vocational interest, the school provides a variety of liberal studies courses for other majors.

The school also offers a series of interdisciplinary honors courses that combine broad cultural seminars with intensive individual study and lead to an "honors in humanities" degree designation.

Finally, the school serves the campus and the community throughout the year with an array of on-campus conferences and off-campus projects, such as the Great Falls Festival and the production of films on topics of humanistic interest.

The Honors Program in Humanities

Taught by different members of the school, under the direction of the dean, the honors courses in humanities are designed to challenge to the fullest a 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.

By fulfilling individual departmental requirements, a student may concentrate in any major in the College and, at the same time, participate in the humanities honors program by fulfilling the minimum requirements outlined below. Admission and continuance are determined by a Humanities Honors Advisory Committee, whose individual members also act as academic advisors to students enrolled in the program.

HONORS COURSES		15 credits
HUM 199	Humanities Honors Seminar I: Representations of Humanity Past and Present	3
HUM 200	Humanities Honors Seminar II: Representations of Humanity Past and Present	3
HUM 498	Humanities Honors Research: Independent Study	3
HUM 499	Humanities Honors Thesis: Independent Study	3

Plus one of the following:

HUM 300	Humanities Honors Colloquium: The Twentieth Century and Its Discontents	3
HUM 301	Humanities Honors Colloquium: The Enlightenment: Origins of Modern Consciousness	3
HUM 302	Humanities Honors Colloquium: Medieval and Renaissance Culture	3
HUM 303	Humanities Honors Colloquium: Classical Tradition and Christian Civilization	3

Humanities Honors Evening Program

Evening sections of the honors program have been created to better meet the interests and needs of working students. The practical experience and problems of such students are taken as the starting point for developing a comprehensive view of life in the twentieth century and examining the role of the humanities in responding to its problems. A larger historical perspective is then developed in order to better appreciate the possibilities and limits of our human nature.

HONORS COURSES		15 credits
HUM 201	Humanities Honors Seminar III: Representations of Humanities in the World of Work Today	3
HUM 202	Humanities Honors Seminar IV: Representations of Humanities Through Historical Perspectives	3
HUM 498	Humanities Honors Research: Independent Study	3
HUM 499	Humanities Honors Thesis: Independent Study	3

Plus one of the following:

HUM 300	Humanities Honors Colloquium: The Twentieth Century and Its Discontents	3
HUM 301	Humanities Honors Colloquium: The Enlightenment: Origins of Modern Consciousness	3
HUM 302	Humanities Honors Colloquium: Medieval and Renaissance Culture	3
HUM 303	Humanities Honors Colloquium: Classical Tradition and Christian Civilization	3

Courses

Unless otherwise noted, all courses are for 3 credits.

HUM 199 Humanities Honors Seminar I: Representations of Humanity Past and Present

Selected humanistic problems in the literature, history, and philosophy of the past and present. Semester is divided into two periods, classical and medieval-Renaissance, with emphasis on representative authors, e.g., Plato, Sophocles, Dante. Readings, seminar discussions, guest lecturers and educational films explore such perennial questions as the interplay of self and society, the value of intelligence, man's place in nature, heroism, etc.

Prerequisite: Permission of Humanities Honors Advisory Committee

HUM 200 Humanities Honors Seminar II: Representations of Humanity Past and Present

Selected humanistic problems in the literature, history and philosophy of the past and present. Semester is divided into two periods—the 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 explore such perennial questions as the interplay of self and society, the value of intelligence, man's place in nature, heroism, etc.

HUM 201 Humanities Honors Seminar III: Representations of Humanities in the World of Work Today

An examination of human life and its problems in the twentieth century, specifically designed to interest the evening working student. Our technological culture has promised unlimited control and prosperity but has also brought alienation and complexity. Possible solutions offered by politics, behavioral science and philosophy are discussed. This course develops a perspective for understanding our human context and provides a focus for dealing with its problems.

HUM 202 Humanities Honors Seminar IV: Representations of Humanities Through Historical Perspectives

An examination of classic expressions of human nature and values from the ancient Greeks through the twentieth century, specifically designed to interest the working evening student. There is an emphasis on such issues as the hero as an expression of cultural values, the educational role of the epic and other literary forms, and the various means people have found to achieve self-discovery and salvation.

HUM 300 Humanities Honors Colloquium: The Twentieth Century and Its Discontents

An interdisciplinary examination of some specific contemporary cultural issue—the loss of self in modern life, myth-making, impact of technology, etc. Each semester focuses on a different facet of modern consciousness including such aspects as creative experience, scientific outlook and existentialism.

HUM 304 Humanities Honors Colloquium: The Enlightenment: Origins of Modern Consciousness

An examination of the contributions of the Enlightenment to the development of Modern Western consciousness. The course explores the role of reason and sentiment in the development of European cultures of the eighteenth century.

HUM 302 Humanities Honors Colloquium: Medieval and Renaissance Culture

An examination of the thought, literature, art and social structure of the Middle Ages and the Renaissance, c. 400-1500. The course stresses the features distinctive to the period and those which have influenced the modern world.

HUM 303 Humanities Honors Colloquium: Classical Tradition and Christian Civilization

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 498 Humanities Honors Research: Independent Study

Independent study and research in an approved subject for the honors program.

HUM 499 Humanities Honors Thesis: Independent Study

Independent study with the completion of a written report or its equivalent approved in the honors program.
Prerequisite: HUM-498

Liberal Studies Major

Students who are interested in several disciplines offered by the School of Humanities, but who do not wish to major in any one of them, may want to pursue the liberal studies major offered by this school. With the assistance of an academic advisor, students select a total of 48 credits from at least three of the school's majors, taking no more than 18 credits in any one of them.

Successful completion of the program results in a bachelor's degree in liberal studies, School of Humanities.

Department of African and Afro-American Studies

Professor—E. Bell (chairman)
Associate Professor—V. McClean
Assistant Professors—L. Agard-Jones, J. Jordan

The African and Afro-American Studies Department offers both a major and a minor program, plus a variety of ethnic courses as free electives for students in other major programs. The African and Afro-American studies major may be combined with various certification sequences to provide the student with teaching certification in early childhood or elementary education, or social studies.

The objectives of the major in African and Afro-American studies are: 1) to introduce the history and culture of African and Afro-American peoples; 2) to provide extensive training in these areas for students interested in research, teaching, social work and community leadership; 3) to provide students with a background for graduate work in African and Afro-American studies; 4) to provide students with a background for careers in urban study and community work; 5) to provide a foundation for graduate studies in urban studies.

MAJOR REQUIREMENTS 36 credits

Required Course
AAAS 100 Introduction to African and Afro-American Studies 3

Plus 33 additional credits chosen from among the following areas as indicated:

- Historical**—three courses required.
AAAS 110 Afro-American History to 1865 3
AAAS 111 Afro-American History Since 1865 3
AAAS 201 The Civilizations of Ancient Africa 3
AAAS 203 Colonialism in Africa 3
AAAS 240 Afro-Caribbean History 3
AAAS 245 The Caribbean in the Twentieth Century 3
AAAS 301 Contemporary Africa 3
AAAS 310 Recent Interpretations in Afro-American Studies 3
AAAS 315 Afro-American Background for Teachers 3

- Socio-Psychological**—two courses required.
AAAS 112 The Black Child 3
AAAS 131 Afro-American Social Thought 3
AAAS 202 African Family Life 3
AAAS 204 African Cultural Systems 3
AAAS 230 Roots of Racism in the United States 3
AAAS 255 The Black Woman Experience 3
AAAS 258 Black Psychology 3
AAAS 260 Psychological Testing of American Children 3

- AAAS 265 Unity/Diversity in the Black Community 3
AAAS 300 The Black Family 3
AAAS 302 The Black Church 3
AAAS 308 Police and the Black Community 3
AAAS 412 Fundamentals of Social Work 3

- Political**—two courses required.
AAAS 130 Black Politics 3
AAAS 205 Pan-Africanism and the Black Experience 3
AAAS 208 Blacks and the Criminal Justice System in the United States 3
AAAS 238 African Politics 3

- Humanities and the Fine Arts**— 6 credits required.
AAAS 101 Afro-Caribbean Dance 3
AAAS 102 Contemporary Afro-American Dance 3
AAAS 105 Linguistic Adaptation of Today's Minorities 3
AAAS 120 Afro-American Music 3
AAAS 206 Elementary Swahili 3
AAAS 207 Blacks and the Mass Media 3
AAAS 209 Beginner's Karate 3
AAAS 210 Intermediate Karate 3
AAAS 211 Advanced Karate 3
AAAS 228 The Afro-American Literary Experience I 3
AAAS 229 The Afro-American Literary Experience II 3
AAAS 233 Introduction to the Art of Africa 3
AAAS 307 Intermediate Swahili 3
AAAS 311 African Literature 3
AAAS 312 Blacks and the Performing Arts 6
AAAS 313 Afro-American Theatre 3
AAAS 314 Afro-American Theatre Production 6
AAAS 330 Images of the Black Man in Early American Art, 1600-1800 3
AAAS 340 Creative Teaching through Performing Arts 3

- Economics and Community Development**—two courses required.
AAAS 220 Career Guidance 3
AAAS 280 Minority Enterprises 3
AAAS 288 Blacks and the Business World 3
AAAS 299 Student Community Service 3
AAAS 410 Problems and Practices of Ethnic Markets 3
AAAS 420 Economic Structure of the Black Community 3

MINOR REQUIREMENTS 18 credits
AAAS 100 Introduction to African and Afro-American Studies 3

Plus a total of 15 credits chosen from among the concentrations above, by advisement.

Courses

Unless otherwise noted, all courses are for 3 credits.

AAAS 100 Introduction to African and Afro-American Studies

An introductory course 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.

AAAS 101 Afro-Caribbean Dance (same as PE 116)

Preparation of the body through conditioning exercises and dance sequences 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 examine dance forms more closely by composing a dance sequence using ethnic materials from class.

AAAS 102 Contemporary Afro-American Dance

Dance—choreographed movement to musical sound—as a means of understanding the contemporary Afro-American experience.

AAAS 105 Linguistic Adaptation of Today's Minorities

Investigates 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.

AAAS 110 Afro-American History to 1865

After a survey of the African heritage, including slavery, a study is 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 is examined.

AAAS 111 Afro-American History since 1865

Beginning with an examination of the period of Reconstruction, the course explores the various survival tactics of Afro-Americans and the effects of governmental and societal action or inaction on their lives up to the present.

AAAS 112 The Black Child

A review of the literature on children of Afro-American descent. Students are assigned to work as volunteers tutoring elementary school children.

AAAS 120 Afro-American Music

The music of Africa and black people in the United States has become interwoven with that of America. This course presents a brief analysis of such musical forms as black spirituals, jazz and the utilization of such African forms of expression as drums, guitar, bass fiddle and other means of musical expression. Interpretive analysis is also presented.

AAAS 130 Black Politics

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. Particular attention is paid to black political interaction in New Jersey.

AAAS 131 Afro-American Social Thought

The development of the social thought of black Americans in the nineteenth century regarding the nature of being and the circumstances and fortunes of black people. Begins with David Walker and Martin Delaney and concludes with Malcolm X, Stokely Carmichael and Bayard Rustin.

AAAS 201 The Civilizations of Ancient Africa

Egypt, Kush, Ghana, Mali, Songhai, Benin and life are among the civilizations of ancient Africa discussed. Particular stress on the controversy surrounding the African origin of all civilizations.

AAAS 202 African Family Life

Traces and examines the origin and development of the African family system, marriage, sex and child rearing. Focuses also on the primacy of the family in African life.

AAAS 203 Colonialism in Africa

Describes the exploration, conquest and colonization of Africa during the nineteenth and twentieth centuries. Also highlights the beginning of the transformation of the African traditional society to a modern society.

AAAS 204 African Cultural Systems

Deals with both the nature and processes of African culture. Focuses on the African being, his religion, music, art and economic and political systems.

AAAS 205 Pan Africanism and the Black Experience

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.

AAAS 206 Elementary Swahili

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.

AAAS 207 Blacks and the Mass Media

Examines the history and roles of blacks in the American media. Six credits (with lab or field activities)

AAAS 208 Blacks and the Criminal Justice System in the United States

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.

AAAS 209 Beginner's Karate

Attempts to influence positively and guide the general behavior of students by means of martial arts. Students are introduced to the various martial arts as an art form 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.

AAAS 210 Intermediate Karate

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.

AAAS 211 Advanced Karate

Refines further the martial arts fundamentals introduced in AAAS 209 and 210.

AAAS 220 Career Guidance

Designed to enable students to move more easily into the workplace. Students are exposed to various aspects of the job market and learn interview techniques, resume preparation and other methods of self-preparation and presentation.

AAAS 228 The Afro-American Literary Experience I

The black experience as depicted in literature by and about black people. Focuses on biographies, autobiographies and fiction.

AAAS 229 The Afro-American Literary Experience II

Focuses mainly on Afro-American drama, poetry and essays.

AAAS 230 Roots of Racism in the United States

A survey which traces and analyzes the development of American racism.

AAAS 233 Introduction to the Art of Africa
An introductory course designed to explore and examine the origin, evolution and meaning of African art. In addition to highlighting the forms, styles and expressions of African art, the course examines the role of art in African life.

AAAS 238 African Politics
Deals with post-independence governmental political parties and ideological inclinations among 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.

AAAS 240 Afro-Caribbean History
Examines the history of the Caribbean starting with the discovery of the islands, colonization, slavery and the evolution of a distinctly Afro-Caribbean personality and culture.

AAAS 245 The Caribbean in the Twentieth Century
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, is studied.

AAAS 255 The Black Woman Experience
Examines what it is to be a black woman in racist and sexist America. Highlights the achievements of black women and the predicament of being caught up between the black man and the white man.

AAAS 258 Black Psychology
Examines traditional schools of psychology as they pertain to the psychological experience of black Americans. Alternative psychological considerations, relative to the black experience, and advanced by noted black psychologists, are also explored.

AAAS 260 Psychological Testing of American Children
Explores and analyzes the pros and cons of psychological testing of black children in a racist society.

AAAS 265 Unity/Diversity in the Black Community
A discussion of the opposing political, religious and economic thoughts in the black community, such as community control and separation vs. integration. The diversity of the black community does not preclude the unity of Afro-Americans, which is discussed.

AAAS 280 Minority Enterprises
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 businesses can be improved both quantitatively and qualitatively.

AAAS 288 Blacks and the Business World
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.

AAAS 299 Student Community Service
This course is designed to give the student an opportunity to coordinate his learning experience through performance in different areas which encompasses 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.

AAAS 300 The Black Family
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 concepts and practices of love, marriage, divorce, illegitimacy, homosexuality and other aspects of the black family.

AAAS 301 Contemporary Africa
Deals with social, economic, political and technological aspects of contemporary Africa: the organization and management of these socio-economic and political forces determine both internal and external policies relative to the problem of nation building.

AAAS 302 The Black Church
Examines and analyzes the social and historical development of the black church in the black community. The course demonstrates the role of the church in the survival and struggles of black people. There is also an attempt to show how the church's role has been adjusted to changing circumstances and environment.

AAAS 307 Intermediate Swahili
Emphasizes primarily conversation and basic grammar. The class meets formally twice a week; in addition, student work with tapes in the language lab. The approach is concentrated on phonology, morphology and vocabulary.

AAAS 308 Police and the Black Community
Designed to investigate and describe the causes and nature of the conflicts arising between the police force and the black community. People presently involved in police and/or community relations are invited to the class to discuss the roles and duties of the police force and the interests and rights of the black community.

AAAS 310 Recent Interpretations in Afro-American Studies
A presentation of the differing points of view on current topics in Afro-American studies and scholarship.

AAAS 311 African Literature
Examines contemporary African writing, essays, drama, poetry and/or fiction; and explores the common theme in most African writing and the problems of cultural identification.

AAAS 312 Blacks and the Performing Arts
Deals with the black experience in dance, singing, drama and other performing arts occupations. The course stresses basic skills and introduces the student to the contributions of blacks in these areas.

AAAS 313 Afro-American Theatre
An exploration of the black experience through the medium of theatre.

AAAS 314 Afro-American Theatre Production
The objective of this course is to stage a full-scale production at the end of the semester in which the course is given. Some theatrical background is required. 6 credits

AAAS 315 Afro-American Backgrounds for Teachers
A general course for prospective teachers. Introduces various current and historical precepts for analysis which enable the student to identify the roots of the black American experience. Students visit areas of cultural interest to Afro-Americans in the metropolitan-New York-New Jersey area.

AAAS 330 Images of the Black Man in Early American Art, 1600-1800
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.

AAAS 340 Creative Teaching through Performing Arts
A study of the performing arts as a teaching/learning device in the classroom. Exploration of the performing arts as a means of developing the child's self-expression and awareness of reality. Investigation of performing arts as a curriculum tool for the teacher.

AAAS 410 Problems and Practices of Ethnic Markets

After an introduction to principles of marketing and consumerism, the course surveys the existing range of advertising and consumer items common among black people, plus how the existing market can be expanded and improved for overall community development.

AAAS 412 Fundamentals of Social Work

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 inner city areas.

AAAS 420 Economic Structure of the Black Community

The course begins 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.

AAAS 480 Research Methods and Minorities

Introduces students to methodological approaches in research in minority communities.

AAAS 499 Independent Study

As approved and to be arranged.
1-3 credits

Department of English

Professors—R. Atnally, P. Cioffari, M. Davidow, E. DeGroot, D. Duclos, R. Jaarsma, R. Kloss, V. Mollenkott, R. Nickson, J. Runden, S. Wertheim

Associate Professors—D. Edwards, J. Fulton, V. Granger, S. Hand, J. Hauser, J. Hoban, S. Kistler, S. McNamara (chairman), F. Manno, A. Mazzella, S. Radner, D. Thomas

Assistant Professors—M. Conlon, J. Hartman, L. Lyles, D. Pery, K. Ray, R. Rosen

The English Department offers a major program in literature and a major with concentration in writing leading to a bachelor of arts degree in English, plus a minor in English and a variety of liberal studies or free elective courses for students in other programs. Students may choose from courses in English, American and comparative literature; linguistics, criticism and writing; or contemporary themes in literature and film.

The objectives of the program are: 1) to provide students with an understanding and appreciation of literature as art and the relation of literature to other art forms; 2) to heighten students' awareness of their linguistic, literary and cultural heritage; 3) to develop their critical reading, interpreting and thinking skills; 4) to increase their ability to communicate their ideas in writing; 5) to provide students with backgrounds for their careers; 6) to prepare students for advanced work at the graduate level.

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

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

Note: It is recommended, although not required, that ENG 110, **Writing Effective Prose**, which all students must pass with a grade of "C," be taken by English majors during the first semester of the freshman year, and that ENG 200, **Methods of Critical Analysis**, which is not a required course, be taken in the second semester.

ENGLISH REQUIREMENTS 30 credits

Choose five of the following "survey" courses:

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

Choose two "period" courses, one of which must be before 1900:

Before 1900

ENG 310	Elizabethan and Jacobean Drama	3
ENG 311	Literature of the English Renaissance	3
ENG 312	Donne, Jonson and Their Contemporaries	3
ENG 313	The Age of Dryden, Pope and Swift	3
ENG 314	The Age of Johnson	3
ENG 315	Romantic Movement in England	3
ENG 316	Literature and Culture of the Victorians	3
ENG 320	The English Novel: Defoe to Auden	3
ENG 321	The English Novel: Dickens to Hardy	3
ENG 322	Nineteenth-Century European Novel	3

After 1900

ENG 317	Modern American Literature	3
ENG 318	Modern British Literature	3
ENG 319	Modern British and American Poetry	3
ENG 323	Twentieth-Century European Novel	3

Choose one writing course:

ENG 330	Critical Writing	3
ENG 331	Creative Writing	3
COMM 250	Journalism	3

Choose one language course:

ENG 401	Linguistics and Grammar	3
ENG 402	Development of the English Language	3

Choose one specialized author or seminar course:

ENG 410	Chaucer and His Age	3
ENG 411	Shakespeare: Comedies and Histories	3
ENG 412	Shakespeare: Tragedies and Romances	3
ENG 413	Milton	3
ENG 480	Seminar in English Literature	3
ENG 481	Seminar in American Literature	3

WRITING CONCENTRATION REQUIREMENTS
30 credits

Required Courses 21 credits

ENG 200	Methods of Critical Analysis	3
ENG 330	Critical Writing	3
ENG 331	Creative Writing	3
ENG 401	Linguistics and Grammar	3
Choose one of the following:		
ENG 209	Book and Magazine Editing	3
COMM 250	Journalism	3
Choose one of the following pairs:		
ENG 303	American Literature to 1865	3
and		
ENG 304	American Literature 1865-1914	3
ENG 304	American Literature 1865-1914	3
and		
ENG 317	Modern American Literature	3
ENG 301	English Literature: Through the Neo-classic Period	3
and		
ENG 302	English Literature: Romantic through Modern	3
ENG 302	English Literature: Romantic through Modern	3
and		
ENG 318	Modern British Literature	3
ENG 305	Literature of Western Europe: To the Renaissance	3
and		
ENG 306	Literature of Western Europe: Renaissance through Modern	3

Electives 9 credits

Choose three courses from one of the following tracks:

Creative Writing

ENG 332	Advanced Creative Writing	3
COMM 431	Screenwriting	3
or		
COMM 324	Writing for Radio and TV	3
COMM 451	Freelance Writing	3
or		
ENG 619	Writing for the Magazine Market	3

Critical Writing

ENG 333	Critical Writing for the Specialist	3
COMM 459	Journalism Field Studies	3
or		
COMM 351	Advanced Reporting	3
or		
COMM 451	Free Lance Writing	3
or		
COMM 454	News Editing	3

ENG 615	Advanced Critical Writing†	3
or		
ENG 300	Technical Writing	3

Teaching

ENG 332	Advanced Creative Writing	3
or		
ENG 615	Advanced Critical Writing†	3
ENG 333	Critical Writing for the Specialist	3
ENG 617	Modern Techniques of Composition†	3

*In the event that a student must complete Basic Skills requirements or does not take **Writing Effective Prose** until the sophomore year, special opportunities will be granted for completion of the sequence in a timely fashion.

†For senior students who show special ability; with the permission of the department and the dean.

MINOR REQUIREMENTS 18 credits

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

Note: With the chairman's permission, six credits of other English courses may be substituted for two of the required courses in the minor.

CERTIFICATION REQUIREMENTS 43 credits

Students who are interested in obtaining teacher certification in English must complete the following:

Academic Content Requirements 3 credits

One course in speech arts or dramatics.

Secondary Education (K-12) Requirements
40 credits

EDUC 403	Culminating Field Experience	8
HSC 120	Current Health Problems	3
PSY 110	General Psychology	3
RLA 329	Foundations of Reading	3
RLA 330	Reading Strategies for the Content Areas	3
SED 301	Curriculum and Its Implementation	3
SED 302	Discovering Your Teaching Self (K-12)	3
SED 330	Implementing Your Teaching Major (K-12)	3
SED 340	Exploring the Teaching Field	1
SED 404	Instructional Seminar for Student Teaching	1
TED 310	Educational Psychology: Adaptations and Interventions in the Classroom	3

Plus one human relations course from the list on page 35.

Plus one professional preparation course from the list on page 35.

Courses

Unless otherwise noted, all courses are for 3 credits.

ENG 101 English as a Second Language: Fundamentals I

An intensive course in basic English communication skills (listening, speaking, reading, writing), designed for the non-native English speaking student. Course concerns itself with the sound system and the written structure of the English language.

ENG 102 English as a Second Language: Fundamentals II

An intensive course in English communication skills (listening, speaking, reading, and writing), designed for the non-native English speaking student. The course presupposes a knowledge of English above and beyond the merely "survival" level and concerns itself with the sound system and the written structure of the English language.

ENG/RLA 107 Basic Reading

Designed to develop and increase the student's reading, vocabulary, comprehension and study skills. The course also stresses flexible reading approaches applicable to various materials including the student's college texts.

Credits for this basic skills course are not applicable toward degree requirements.

ENG 108 Basic Writing

The basic writing course is designed to emphasize the standard English sentence and the extension of a group of sentences into an organized unit.

Credits for this basic skills course are not applicable toward degree requirements.

WILLIAM PATERSON COLLEGE

ENG 110 Writing Effective Prose

Essential freshman writing course, designed to develop student's writing competency on the college level.

ENG 111 Advanced Writing Effective Prose

Designed to expand and extend critical reading and writing skills. Logical thinking is stressed as the basis for the various modes of inquiry. The skills practiced in this course should be easily transferrable to a student's major field of study.

ENG 120 Twentieth-Century Authors

Major works in modern fiction, drama and poetry. May include Conrad, Joyce, Woolf, Yeats, Lessing, Faulkner, Hemingway, Fitzgerald, Eliot, Albee, Baraka, Camus, Hesse, Chekhov, Pirandello, Lorca, Kafka, Brecht.

ENG 130 The Short Story

Analysis of selected short stories by a variety of writers who have shaped and are shaping the genre: Bradbury, Hemingway, Baraka, Updike, Singer, Borges, Baldwin, Barthelme, Joyce, Kafka, Cheever, O'Connor, Oates, Poe, Hawthorne, Faulkner, James, Wright, Welty, and others.

ENG 150 Introduction to Literature

The course is intended to develop in the student the appreciation and enjoyment of selected works in fiction, drama and poetry. Works selected represent different historical periods and cultures. Writing is required.

ENG 200 Methods of Critical Analysis

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

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. 3 credits each semester

ENG 207 Effective Business Writing

A skills course featuring technical report writing, letters, data sheets, abstracts and other communication procedures.

ENG 208 The Bible and Literature

Examines the literary stature and influence of the Bible and 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

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

Biographies and autobiographies: Van Gogh, Fitzgerald, Richard Wright, others; a study of the writer's purpose, procedure and style.

ENG 211 Modern Drama

Dramatists of Europe, England, America: Ibsen, Strindberg, Shaw, Pirandello, Lorca, O'Neill, Albee, Chekhov.

ENG 212 Contemporary Literature

British, American and Continental fiction and poetry from World War II to the present; writers may include Barth, Barthelme, Pynchon.

ENG 214 Contemporary Drama

Theatre of the Absurd, Cruelty, Protest, Guerrilla theatre; experiments in ritual and free drama such as "Dionysus 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

How composers and librettists transformed *Carmen*, *Macbeth*, *Salome*, *Camille*, *Manon Lescaut* and other works into operas. Ability to read music not required.

ENG 216 Science Fiction and Fantasy

A study of classical and recent science fiction, fantasy for adults and children, utopian and anti-utopian fiction. Authors read may include Asimov, Bradbury, Burgess, Carroll, Clarke, Gilman, Heinlein, Huxley, LeGuin, Lewis, Orwell, Tolkien, Vonnegut, Wells, Zamyatin.

ENG 217 Images of Women in Modern Literature

A study of the images of women in modern literature drawn mainly by women, and emphasizing the different social and emotional roles women are forced to play: young unmarried women, wives, mothers, old maids, free women. Selected writers include Plath, McCarthy, Lessing.

ENG 219 Nineteenth-Century Women's Voices

A study of literary pieces of the nineteenth century showing woman passively accepting her role in society, questioning her role, rebelling against her role, and creating a new life style. Writers include Mary Shelley, Harriet Beecher Stowe, Charlotte Bronte.

ENG 220 Women, the Bible and Modern Literature

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 Millett, Rich, Daly, Lessing, others.

ENG 221 The Mystery Story

An historical, "philosophical," cultural and literary study of the mystery story through an examination of such fictional works as the detective story, the suspense novel, the story of strange or frightening adventure, the tale of espionage, the tale of crime and the Gothic novel—with an emphasis on detection.

ENG 222 Crime and Punishment: Law in Literature

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 229 Novel and Film

Consideration of major novel-film adaptations, with emphasis on the challenge of transforming words into images; included may be *The Great Gatsby* (Fitzgerald-Clayton), *Great Expectations* (Dickens-Lean), *Jules and Jim* (Roche-Truffaut), others.

ENG 230 Story and Film

Study of short works, like short story, myth, fable, and their film adaptations; works may include "The Sentinel"/*2001: A Space Odyssey* (Clarke-Kubrick), *Blow-Up* (Cortazar-Antonioni), "The Turn of the Screw"/*The Innocents* (James-Clayton), and experimental short films like "Crazy Quilt."

ENG 300 Writing Technical Papers and Reports

Designed to help students identify and reproduce the qualities that mark successful technical writing. The course concentrates on composing several short papers—definition, description, classification and process analysis—and on the long technical report.

ENG 301 English Literature through the Neoclassical Period

Critical study of selected prose and poetry from the beginnings of English literature through the eighteenth 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

Critical study of selected prose and poetry from the early nineteenth century to the present, with attention to social and intellectual background; included are such authors as Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Wilde, Joyce, Yeats.

ENG 303 American Literature to 1865

Major and minor American authors from the beginnings through Poe, Hawthorne, Melville, Emerson, Thoreau.

ENG 304 American Literature 1865-1914

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

Great works of the early Western world: Homer, Sophocles, Plato, Aristotle, Virgil, Dante, Boccaccio, St. Augustine.

ENG 306 Literature of Western Europe: Renaissance through Modern

Great works of the later Western world: Machiavelli, Rabelais, Cervantes, Molière, Goethe, Balzac, Dostoevsky, Mann, Sartre, Proust.

ENG 340 Elizabethan and Jacobean**Drama**

Shakespeare's forerunners and contemporaries in drama: Kyd, Marlowe, Jonson, Webster, others.

ENG 311 Literature of the English Renaissance

A study of selected English prose and poetry of the sixteenth century. Special attention is given to the early English humanist theories of education, eloquence and language and their literary influence. The important developments in English poetry are studied, including the variation of line, language, imagery, and form (song, sonnet, satire, pastoral, epic). Several writers are considered, but the focus is on such major figures as Thomas More, Philip Sidney and Edmund Spenser.

ENG 312 Donne, Jonson and their Contemporaries

Study of British literature, 1600-1660, emphasizing Donne, Jonson, Bacon, Herrick, Herbert, Marvell. Focus is on relationship between themes and techniques of seventeenth-century literature and those of modern times.

ENG 313 The Age of Dryden, Pope and Swift

This course focuses upon a study of selected prose and poetry and minor authors of the age of Dryden, Pope and Swift to explore the relationship of the literature to the intellectual milieu of the period: social, political and economic thought; the theory and practice of letters; the dominant attitudes in philosophy, religion, science and education.

ENG 314 The Age of Johnson

Late eighteenth-century poetry, prose, drama; emphasis on Boswell, Johnson, Goldsmith, Gray; decline of Augustanism, rise of Romanticism.

ENG 315 Romantic Movement in England

Romantic poetry and prose: Burns, Blake, Wordsworth, Coleridge, Scott, Byron, Shelley, Keats, critics of the period.

ENG 316 Literature and Culture of the Victorians

Poetry of Tennyson, Browning, Arnold, others; prose works by Carlyle, Newman, Mill, Ruskin, Huxley; Victorian novels and plays.

ENG 317 Modern American Literature

Leading American writers of the modern period: Stevens, Frost, Eliot, O'Neill, Fitzgerald, Hemingway, Wolfe, Steinbeck, Faulkner, others.

ENG 318 Modern British Literature

Fiction, poetry, drama, criticism since 1885: Forster, Hardy, Joyce, Yeats, Shaw, Woolf, Conrad, Hopkins, Lawrence, I.A. Richards, Empson; Irish Renaissance, naturalism, symbolism.

ENG 319 Modern British and American Poetry

Major poets and significant trends in modern British and American poetry beginning with Yeats and Robinson and including such figures as Frost, Eliot, Auden, Thomas, Sexton, Plath, Ginsberg, Lowell, Larkin and Hughes.

ENG 320 The English Novel: Defoe to Austen

Selected novels by Defoe, Richardson, Fielding, Smollett, Sterne, Austen.

ENG 321 The English Novel: Dickens to Hardy

Selected novels by Dickens, Thackeray, Trollope, Meredith, George Eliot, Hardy.

ENG 322 The Nineteenth Century European Novel

This course focuses on a study of major French, German and Russian novels against the social, political and intellectual milieu of nineteenth-century Europe. Within the framework of the romantic realistic and the naturalistic literary movement, the novels are read from a variety of viewpoints; as a depiction of the life of a nation—Balzac, Gogol, Tolstoy and Mann; as a probing of the psychological nature of man—Stendhal, Dostoyevsky and Zola; and as an innovation in technique—Flaubert, Stendhal and Mann.

ENG 323 Twentieth-Century European Novel

Readings in representative novelists, including Proust, Mann, Hesse, Kafka, Camus, Moravia, Solzhenitsyn.

ENG 330 Critical Writing

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

Workshop leading to the development of imaginative power and originality in writing poetry, fiction, drama, film scripts.

ENG 332 Advanced Creative Writing

An advanced writing course designed to meet the needs of students who, having successfully completed one semester of creative writing, desire further time for supervised writing and specialized instruction.

ENG 333 Critical Writing for the Specialist

Seminar introduces student to his area of specialization in writing in an advanced context which provides close individual supervision and also exposes the student to all kinds of analytical writing. The technical reporter, for example, will learn from the film critic, the journalist from the copywriter.

ENG 335 Modern American Jewish**Authors**

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

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 professional interest, and are announced in current master schedules.

ENG 401 Linguistics and Grammar

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

Study of forces that shaped vocabulary, pronunciation, spelling and grammar.

ENG 410 Chaucer and His Age

Emphasis is on Chaucer's *Canterbury Tales*, and Chaucer's language: late Middle English of the South East Midlands. Some attention is given to the historical background of the period and, if time permits, a number of Chaucer's shorter works are read and discussed.

ENG 411 Shakespeare: Comedies and Histories

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

Study of such plays as *Hamlet*, *Macbeth*, *Romeo and Juliet*, *Othello*, *King Lear*, *The Tempest*.

ENG 413 Milton

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

Major literary theories and practices from Aristotle to the present with emphasis on contemporary application. Experience in practical analysis and writing is featured.

ENG 421 Literature and Psychoanalysis

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

The relationship between depth psychology and literature and 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

Study of symbol, ritual and myth formation and primitive, classical, biblical and social symbols and myths as they appear and function in literature.

ENG 480 Seminar in English Literature

Designed to help students study, in depth, a single British author, or work, chosen by the instructor.

ENG 481 Seminar in American Literature

Course to help students study, in depth, a single American author, or work, chosen by the instructor.

ENG 499 Independent Study

As approved and to be arranged. 1-3 credits

Note: See also courses listed under Humanities, p. 60.

Department of History

Professors—J. Brandes, J. Drabble, M. Edelstein, C. Gruber, D. Li

Associate Professors—V. Caporale, J. Drabble, R. Miller, I. Nack, T. Ripmaster (chairman)

Assistant Professor—G. Satra

Emeritus—W. Baumgartner, L. Ellis

The history major may concentrate in American or European history. Courses in Asian and Latin American history are also offered. The courses examine economic, social, intellectual, political and diplomatic history, and aim at developing the techniques of historical investigation, as well as increasing a student's ability to critically interpret the past.

MAJOR REQUIREMENTS 33 credits

Hist 101	Western Civilization to 1648	3
Hist 102	Western Civilization Since 1648	3
Hist 103	United States History to Civil War	3
Hist 104	United States History Since the Civil War	3

Plus one 3-credit course in non-Western history, e.g., Chinese or Latin American history. This course may be at the 200-, 300- or 400-level and cannot count towards elective requirements. 3

Plus 18 additional credits selected as follows:

1 course of completely free electives at the 200-, 300-, or 400-level.	3
4 courses at the 300-level	12
1 course at the 400-level	3

Note: No more than 18 credits, including 6 credits of American and European history and 3 in non-Western history, can be in any one area of concentration; i.e., American, European, or non-Western history. This means that only 4 of the 6 elective courses can be in any one area.

CERTIFICATION REQUIREMENTS 64 credits

Students who are interested in obtaining teacher certification in history must complete the following:

Academic Content Requirements 24 credits

One of the following African and Afro-American studies courses:

AAAS 110	Afro-American History to 1865	3
AAAS 111	Afro-American History since 1865	3
AAAS 300	The Black Family	3
AAAS 315	Afro-American Background for Teachers	3

One of the following economics courses:

ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3
ECON 230	Economics of the Environment	3

Plus one course in each of the following areas:

Geography	3
Political Science	3
Sociology/Anthropology	3
European History	3
Plus two American history courses	6

Secondary Education (K-12)

Requirements 40 credits

Completion of the 40-credit series; "Subject Field Certification (K-12) Requirements," listed on page 35.

Courses

Unless otherwise noted, all courses are for 3 credits.

European History

HIST 101 Western Civilization to 1648

The first of a two-semester sequence, this course deals with the institutions and ideas representative of the cultures of medieval and early modern Europe and begins with an introduction to the classical and religious foundations of medieval civilization.

HIST 102 Western Civilization Since 1648

The second of a two-semester sequence, this course is designed to give broad coverage of the shaping of modern Western civilization. It traces political, intellectual, social and economic trends from 1648 to the present.

HIST 231 Greek Civilization

Covers the cultural background of ancient Greece and 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

A study of Roman history with emphasis on internal political developments. Focus is on Roman originality in developing concepts of constitutional government and rule of law. The Roman political system, adopted as a model by the founding fathers of the United States, is evaluated in terms of its success and failure in solving the complex problems of a rapidly expanding economy, and as a political influence.

HIST 233 Europe in the Middle Ages

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 241 History of Christianity

A history of Christianity from the ancient world to the present, primarily in its European setting. Focus is on the reciprocal impact of the forms, thought and organization of the Christian religion and society and culture.

HIST 301 Social History of Modern Europe

Covers the evolution of European society from a "pre-industrial society" in the eighteenth century, through an "industrial society" in the nineteenth and twentieth centuries, to a "post-industrial society" in the late twentieth century and introduces students to the objectives, methodology and sources of social history.

HIST 310 Modern France since 1815

The development of France, one of the first democratic republics, from the Bourbon Restoration in 1814 through the Fifth Republic today, featuring a multi-faceted approach to French history. Emphasis is on continuity versus change, and stability versus instability. The course explores the reasons for France's decline and later resurgence as a European power.

HIST 330 Russia: Tsars and Peoples

An examination of the society and culture of medieval Russia is followed by an inquiry into the conditions leading to the rise of the state of Muscovy and the empire of the Tsars into the nineteenth century.

HIST 331 Russian Revolution

After an inquiry into the causes and effects of the revolutions of 1905 and 1917, a study is made of the Soviet regime under Lenin, Stalin, Malenkov, Khrushchev, Brezhnev and Kosygin. Attention is 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

Explores the England of Henry VII 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

Surveys key political developments in Great Britain since the 1780's. Main emphasis is on the development of those social, economic, religious and educational developments which produced modern British society.

HIST 334 The Italian Renaissance and Its Influence on Europe

The convulsions of the Renaissance and the Reformation—which, by attacking the medieval system of ideas and instruction, 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

Covers the period from the Renaissance to the Enlightenment and 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.

HIST 336 Europe in the Age of Revolution: 1789-1848

Examines 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 placed on the revolutionary movements from 1789 to 1848 which give this period a certain unity.

HIST 337 Triumphant Materialism: Europe 1848-1914

European history from the close of the revolutionary era of 1848 to the outbreak of the First World War. Major emphasis is 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

Major political, economic, social and intellectual developments in Europe since 1914. The internal and diplomatic history of the Great Powers, the economic and political transformation of Europe under the impact of an American-Soviet rivalry, and the intellectual record of the age are discussed.

HIST 340 Germany from Bismarck through Hitler

Covers 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

Examines the history of Soviet foreign policy from the Revolution in 1917 to the present and 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

A social and political history of England, 1740-1820. Explores the impact of three revolutions—the Industrial, the American and the French—on the older institutions of the realm. Students examine the Industrial Revolution, analyze the varied responses of the political leaders, the new radicals and the Irish patriots to the American and French Revolutions, and reflect on how this age produced a new economy, a new society and a new form of politics.

HIST 430 The French Revolution and the Napoleonic Era

Examines crucial periods such as the Revolution of 1789, the Year II—the revolutionary dictatorship and the Terror—and the Napoleonic era. While political history is stressed, great emphasis is placed on social history.

HIST 432 Intellectual History of Ancient and Medieval Civilizations

An examination of the artistic, practical (ethical and political), theoretic and religious thought of ancient and medieval civilization in the West.

HIST 442 Industrial Revolution in Europe

The central theme is the evolution of Western European economic dominance in the modern era. Particular emphasis is given to the Industrial Revolution, the growth of free trade, overseas economic expansion, the export of capital, external completion and social economic reform.

United States History**HIST 103 United States to the Civil War**

The first of a two-semester sequence, the course covers American history from the beginning of exploration through the Civil War.

HIST 104 United States Since the Civil War

The second of a two-semester sequence, this course covers the period from Reconstruction to the present.

HIST 205 American History I: Origins to Reconstruction

The first of a two-semester sequence required of history majors. Covers American history from the beginning of exploration through Reconstruction. Open to education majors.

HIST 206 American History II: Reconstruction to the Present

The second of a two-semester sequence required of history majors. Covers the period from Reconstruction to the present. Open to education majors.

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HIST 210 Labor History through Film

An examination of labor history from the nineteenth century to the present, particularly in the United States, through the study of films depicting the conditions and struggles of working people, accompanied by collateral readings and discussions. The films range from animated cartoons to slides, documentaries and feature-length masterpieces, such as "How Green Was My Valley," "Sacco and Vanzetti" and "The Grapes of Wrath."

HIST 220 Origins of the Nation to 1789

Begins with the European discovery of America. Traces the planting of the English colonies in America, the growth of conflict between colonies and the mother country, and the establishment of an independent national government.

HIST 228 History of New Jersey

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

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.

HIST 320 Jeffersonian and Jacksonian Democracy (1789-1840)

An inquiry into the origins of Jeffersonian and Jacksonian democracy is followed by a consideration of their immediate impact and lasting significance. Economic, social, and political aspects are studied and comparisons made with developments in other nations.

HIST 321 Era of the Civil War (1840-1877)

An investigation of the causes and effects of the beginnings of modern industry and the expansion of slavery, a study of the abolitionist movement, the sectional conflict, the Civil War and Reconstruction with emphasis on their long-range impact on the white and black peoples of the United States.

HIST 322 Progress, War and Normalcy (1877-1933)

A survey of rapid economic growth with its impact on business, labor and agriculture followed by discussion of social and political developments, including urbanization and "progressivism." Attention is focused on the rise of overseas imperialism, the First World War, the League of Nations and concludes with an examination of the "booming twenties" and the Great Depression.

HIST 323 From New Deal to Cold War (Since 1933)

An in-depth 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 Social and Cultural History

Emphasis on the developing ways of life of the American people and the ideas and elements of culture which have influenced American society.

HIST 326 Foreign Relations to 1898

Explores the techniques by which the United States expanded from a string of weak and isolated coastal colonies at the end of the eighteenth century to a great trans-continental power by the end of the nineteenth century. The "imperial vision" that guided the makers of foreign policy is analyzed, and the relationship between domestic developments and foreign policy is stressed.

HIST 327 Foreign Relations since 1898

Traces developments in United States foreign policy from emergence as a world power at the opening of the twentieth century to her position of world dominance after the Second World War. The ideological underpinnings of American strategy and tactics on the world stage, U.S. role in major twentieth-century wars—hot and cold—and the current confusion in U.S. foreign policy are stressed.

HIST 328 Economic History: Issues of Expansion and Change

Emphasizes economic elements, including the use of human and natural resources, in the historic growth of the United States from colonial to recent times.

HIST 403 Interpreting U.S. History

Primarily for students with a special interest in American history. Provides an opportunity to critically examine areas in which important reinterpretations have been made or in which controversy exists among scholars.

HIST 425 Immigration in the Growth of America

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, the economic and cultural adjustment of the newcomers, and their impact are studied in the light of historical evidence.

Asian History

HIST 105 Non-Western Civilization: China

A broad review of the development of Chinese civilization from ancient to modern times. Examines the "spirit" of each period and the accumulated effect of innovations and changes on the formation of modern China.

HIST 265 Modern Japan

Intended to introduce the history of modern Japan to students who have little or no knowledge of this area. Stresses Western impact and Japan's response to it. Particular attention is given to Japan's modernization programs, the rise of Japan as an Imperialist power and her recovery from defeat after World War II.

HIST 270 Traditional China

China before the Western impact. Analyzes China's religions, philosophies, government, economics, family and society and attempts to bring into focus those aspects of the Chinese civilization that have a direct bearing on our understanding of the Chinese today.

HIST 271 Modern China

China's response to the impact of the West with particular attention to the difficulties with which China adjusts herself to a modern, fast-changing world and the developments which led her finally to communism.

Latin American History

HIST 106 Non-Western Civilization: Latin America

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; and explores the reasons for the strong spirit of anti-Americanism which exists.

HIST 380 Colonial Latin America

A review of the Ibero-Indian-African background of Latin America. Also deals 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 the wars for independence.

HIST 381 Modern Latin America

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 are explored with consideration given to Latin America's role in world affairs and relationship with the United States.

HIST 382 Puerto Rico, Cuba and the Caribbean World

A survey of Caribbean history from Columbus to Castro, stressing the important changes which occurred in the 1950's when the Caribbean became a focal point of the struggle between different world interests and ideologies.

Variable Courses: Thematic, Cross-Cultural History, Methodology

HIST 225 Cultural History of the 1960's

Examines the history of the 1960's—a decade of change, reflection, and dissent—from the cultural perspectives of literature, music, and social and political thought.

HIST 250 American Women's History

The experience of American women from colonial times to the present. Explores conditions that shaped women's destiny, analyzes the differences between the historical experience of women from both different social classes and ethnic groups, and considers the ways American women have perceived their condition and worked to alter it.

HIST 260 Historiography

The development of historical writing, the understanding of history, the historical method, the practice and theory of historiography. Intended for history majors.

HIST 433 Comparative Revolutions

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. Major attention is focused on an intensive analysis of selected major revolutions.

HIST 461 Colloquium

Topics vary from year to year. Students read widely on the selected topics and meet to discuss their reading.

HIST 480 Seminar

Topics chosen and announced by the faculty. Readings, reports and papers related to specific topics.
1-3 credits

Note: See also courses listed under Humanities, p. 58.

HIST 499 Independent Study

As approved and to be arranged.
1-3 credits

Department of Languages and Cultures

Professors—C. Barry, W. Rubio, O. Saa
Associate Professors—O. de la Suarée (chairman), A. Sully
Assistant Professors—A. Aguirre, M. Barasch, D. Chao, G. Nussenbaum

The aims of the Department of Languages and Cultures are fourfold: 1) to further the development of students majoring or minoring in the department (presently, majors and minors are offered in French and Spanish); 2) to provide training in bilingual/bicultural education as well as in English as a second language, leading to endorsement as a teacher in those fields in the State of New Jersey and elsewhere; 3) to provide courses which may be used in partial fulfillment of the liberal studies requirement in the humanities; and 4) to offer, whenever possible, electives in second languages.

Career opportunities stemming from a language major; an endorsement in bilingual/bicultural education or in teaching English as a second language may be found in business or in human service careers where bilingualism is valued. Career opportunities may also be found in research, editing, translation, technical writing, airline positions, the UN, and others. Teaching opportunities for language majors are to be found in colleges and secondary schools, in FLES (Foreign Language Elementary School) programs, and in bilingual/bicultural and teaching English as a second language programs.

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. Semester programs are also available.

French Prerequisites

Required for entrance to the French major is a minimum of 580 in the CEEB placement examination. Advanced placement may be obtained by scores of 600 or above.

Students with little or no French background who wish to major in French should complete FR 110, 111, and 112.

MAJOR REQUIREMENTS 30 credits

FR 113	Intermediate French II	3
FR 222	Advanced French Conversation and Composition I	3
FR 223	Advanced French Conversation and Composition II	3
FR 230	Masterpieces of French Literature from Rabelais to Robbe-Grillet	3

FR 240	Cultural Heritage of France	3
or		
FR 241	Contemporary French Culture and Problems	3
FR 331	The Twentieth-Century French Novel	3

Note: Other French literature courses at or above the 200-level may be substituted for some of the above courses by advisement. Courses in French literature in translation may not be applied to major requirements.

Choose an additional 12 credits from among the following:

FR 219	Commercial French	3
FR 220	Translating I	3
FR 320	Interpreting French Literature	3
FR 333	The Modern French Theatre	3
FR 334	French Literature to 1600	3
FR 336	Great French Poetry from Villon to Our Times	3
FR 337	French Literature of Canada, the Antilles and Africa	3
FR 350	Advanced French Phonetics and Grammar	3
FR 351	Tutorial Laboratory in French	3
FR 399	Selected Topics	3
FR 432	The Nineteenth-Century French Novel	3
FR 435	Seventeenth-Century French Tragedy and Comedy	3
FR 438	Literature of the French Enlightenment	3
FR 480	Senior Seminar	3
FR 499	Independent Study	3

MINOR REQUIREMENTS 18 credits

FR 113	Intermediate French II	3
FR 222	Advanced French Conversation and Composition I	3
or		
FR 223	Advanced French Conversation and Composition II	3
FR 230	Masterpieces of French Literature from Rabelais to Robbe-Grillet	3
FR 240	Cultural Heritage of France	3
or		
FR 241	Contemporary French Culture and Problems	3

Choose an additional six credits in French, three of which must be in a literature course selected from the following:

FR 219	Commercial French	3
FR 220	Translating I	3
FR 320	Interpreting French Literature	3
FR 331	The Twentieth-Century French Novel	3
FR 333	The Modern French Theatre	3

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FR 334	French Literature to 1600	3
FR 336	Great French Poetry from Villon to Our Times	3
FR 337	French Literature of Canada, the Antilles and Africa	3
FR 350	Advanced French Phonetics and Grammar	3
FR 399	Selected Topics	3
FR 432	The Nineteenth-Century French Novel	3
FR 435	Seventeenth-Century French Tragedy and Comedy	3
FR 438	Literature of the French Enlightenment	3
FR 480	Senior Seminar	3
FR 499	Independent Study	3

Note: Courses in French literature in translation may not be applied to minor requirements.

CERTIFICATION REQUIREMENTS 43 credits

Students interested in obtaining teaching certification in French must complete the following:

FR 350	Advanced French Phonetics and Grammar	3
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The 40-credit series, "Subject Field Certification (K-12) Requirements," listed on page 35.

Courses

All courses are for 3 credits unless otherwise noted.

FR 109 Introduction to French Culture and Language

Designed primarily to introduce the student to the culture of France across the ages. Cultural material is presented in English. The student's ability to understand basic and simplified French and speak at a "threshold level" is stressed.

FR 110 Basic French I*

Using 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. Prerequisite: 0-1 year high school French.

FR 111 Basic French II*

Provides the student with ongoing development of contemporary conversational French and reading and writing skills beyond beginning level. Prerequisite: FR 110 or equivalent.

FR 112 Intermediate French I*

Aural-oral presentation of such topics as travel, student life and problems, careers, sports and games, industry and the fine arts. Develops reading and writing skills beyond the basic level. Prerequisite: FR 111, or two years of high school French or equivalent.

FR 113 Intermediate French II*

A continuation and intensification of Intermediate French I. The goal is a sophisticated level of comprehension and discussion. Guided readings of French short stories and newspaper and magazine articles or a novel. Prerequisite: FR 112 or equivalent.

FR 115 French Mini Course I†

FR 116 French Mini Course II

FR 117 French Mini Course III

An introductory series of courses in the language and culture of the French-speaking world. The aim is to develop the student's ability to understand, read, write and speak basic and simplified French. The basics of pronunciation and vocabulary and sentence structure are stressed; an introduction to French culture is included. Each mini course: 1 credit.

FR 118 French for Students in the Natural Sciences

Through readings dealing with current scientific topics and selections from contemporary writings of French experts in various scientific and technological fields, students develop skill in reading current French scientific journals and publications independently. Includes a review of the relevant essentials of French grammar and practice in translating scientific texts into English. Prerequisite: Intermediate-level proficiency.

FR 219 Commercial French

Training in understanding and drafting French commercial correspondence (letters and telex) and practice in oral communication in everyday secretarial situations. The course also familiarizes secretaries with those aspects of contemporary French civilization which are useful in daily work. Prerequisite: Intermediate-level proficiency.

FR 220 French: Translating I

An introductory course in the art and practice of translating from English into French and from French into English. Prerequisite: Intermediate-level proficiency.

FR 222 Advanced French Conversation and Composition I

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. Prerequisite: Intermediate-level proficiency.

FR 223 Advanced French Conversation and Composition II

Continuation and intensification of FR 222. Extensive incorporation of contemporary French cultural material in conversation and intensive practice in composition. Prerequisite: FR 222 or equivalent.

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

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

An introduction to the cultural heritage from medieval times through the nineteenth century, including France's major contributions to Western thought and the arts and sciences. Prerequisite: FR 222 or equivalent. May be taken simultaneously with FR 222.

FR 241 Contemporary French Culture and Problems

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. Prerequisite: FR 222 or equivalent. May be taken simultaneously with FR 222.

FR 300 Twentieth-Century French Literature and Translation

Through reading and critical discussion, students confront the ideas and tendencies reflected in the works of the major French writers of the twentieth century. Among the major writers represented are Proust, Gide, Colette, Beckett, Robbe-Grillet and Prévert.

FR 320 Interpreting French Literature

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. Prerequisite: FR 222 or equivalent.

FR 331 The Twentieth-Century French Novel

A study of the novel of twentieth-century France, with particular attention to such authors as Gide, Proust, Mauriac, Sartre, Camus, Robbe-Grillet. Prerequisite: FR 230 or equivalent.

FR 333 The Modern French Theatre

Major dramatists and movements in France from the beginning of the century to the present. Emphasis on French existentialism through the theatre of the absurd. Prerequisite: FR 230 or equivalent.

FR 334 French Literature to 1600

A study of the literature of medieval France. Prerequisite: FR 230 or equivalent.

FR 336 Great French Poetry from Villon to Our Times

A study of the French poetic tradition and major poetic works from the late medieval period to post-surrealism. Prerequisite: FR 230 or equivalent.

*One hour lab work per week required

†Students planning to take all 3 levels must register for all levels during registration period.

FR 337 French Literature of Canada, the Antilles and Africa

Introduces students to the major genres, themes, and authors of Francophone literature outside of metropolitan France. Emphasis is on the intrinsic literary value of black and Canadian literature expressed in French and the cultural and social dimensions of these literatures. Prerequisite: FR 230 or equivalent

FR 350 Advanced French Phonetics and Grammar

The French phonetic system, phonetic analysis and transcription, extensive practice in pronunciation, intonation, and diction. Practice in simple discourse and the oral reading of prose, poetry and dramatic literature. A systematic study of French grammar at an advanced level. Prerequisite: FR 113 or equivalent

FR 351 Tutorial Laboratory in French

Designed to provide experience, training and academic preparation for majors or minors who seek increased fluency and grammatical expertise. To be applied in Basic I level of French classes. Prerequisite: At least second-year status in the major

FR 399 Selected Topics

Enrichment courses of special interest to French majors or minors. Chosen through faculty and student discussion. Prerequisite: FR 230 or equivalent

FR 432 The Nineteenth-Century French Novel

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. Prerequisite: One 300-level course in French literature

FR 435 Seventeenth-Century French Tragedy and Comedy

The French classical tragedy, tragi-comedy and comedy. The major plays of Corneille, Racine and Molière in their contemporary and universal significance. Prerequisite: FR 230 or equivalent

FR 438 Literature of the French Enlightenment

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

In-depth study of a selected author or theme; e.g. women in French literature. Prerequisite: At least 21 credits completed in the major.

FR 499 Independent Study

As approved and to be arranged
1-3 credits

Spanish

Prerequisites

Required for entrance to the Spanish major are 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.

MAJOR REQUIREMENTS 30 credits

- SPAN 113 Intermediate Spanish II 3
- SPAN 221 Spanish: The Spoken Language 3
- SPAN 222 Advanced Spanish Conversation and Composition 3
- SPAN 230 Introduction to Spanish Literature I, 3
- or
- SPAN 231 Introduction to Spanish Literature II 3
- SPAN 240 Hispanic Culture I: Spain, 3
- or
- SPAN 241 Hispanic Culture II: Spanish America 3

Plus one course from each of the following five groups:

Golden Age

- SPAN 331 The Golden Age of Spain 3
- SPAN 435 Cervantes and His Age 3
- SPAN 481 Spanish Seminar: Quevedo, The Spanish Mystics, The Picaresque Novel, others 3

Nineteenth- and Twentieth-Century Literature

- SPAN 330 Spanish Literature of the Twentieth Century 3
- SPAN 334 Romanticism in Spain: Prose and Poetry 3
- SPAN 434 The Nineteenth-Century Novel of Spain 3

Spanish American Literature to 1900

- SPAN 430 The Literature of Spanish America to Modernism 3
- SPAN 432 The Novel in Spanish America I 3
- SPAN 436 The Modern Spanish American Essay 3

Spanish American Literature: Modern

- SPAN 431 The Modern Literature of Spanish America 3
- SPAN 433 The Novel in Spanish America II 3
- SPAN 480 Seminar: Spanish America 3

Spanish Drama

- SPAN 332 The Drama of the Golden Age 3
- SPAN 335 Modern Spanish American Drama 3
- SPAN 337 The Romantic Theatre In Spain 3

MINOR REQUIREMENTS 18 credits

- SPAN 221 Spanish: The Spoken Language 3
- or
- SPAN 222 Advanced Spanish Conversation and Composition 3
- SPAN 230 Introduction to Spanish Literature I 3
- or
- SPAN 231 Introduction to Spanish Literature II 3
- SPAN 240 Hispanic Culture I: Spain 3
- or
- SPAN 241 Hispanic Culture II: Spanish America 3

Plus one course from each of the following three groups:

Golden Age

- SPAN 331 The Golden Age of Spain 3
- SPAN 435 Cervantes and His Age 3
- SPAN 481 Spanish Seminar: Quevedo, The Spanish Mystics, The Picaresque Novel, others 3

Spanish American Literature to 1900

- SPAN 430 The Literature of Spanish America to Modernism 3
- SPAN 432 The Novel in Spanish America I 3
- SPAN 436 The Modern Spanish American Essay 3

Spanish Drama

- SPAN 332 The Drama of the Golden Age 3
- SPAN 335 Modern Spanish American Drama 3
- SPAN 337 The Romantic Theatre In Spain 3

CERTIFICATION REQUIREMENTS

Students interested in obtaining teaching certification in Spanish must complete the 40-credit series, "Subject Field Certification (K-12) Requirements," listed on page 35.

Courses

All courses are for 3 credits unless otherwise noted.

SPAN 109 Introduction to Spanish Culture and Language

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. Cultural topics relevant to college students are discussed in English.

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SPAN 110 Basic Spanish I*

Introduces the student to the basic elements of the Spanish language as used in contemporary Spanish conversation in everyday situations. The student is also exposed to basic forms of the written language and carefully graded readings aimed at widening his working vocabulary. Prerequisite: 0-1 year high school Spanish

SPAN 110 Basic Spanish I (for health professions)

Introduces the student to the basic elements of the Spanish language as used in everyday medical/health-care situations in which conversation in Spanish is necessary. The student is also exposed to basic forms of the written language and carefully graded readings aimed at widening his working medical vocabulary.

SPAN 111 Basic Spanish II*

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 supplements the conversational aspects of the course. Prerequisite: SPAN 110 or equivalent

SPAN 112 Intermediate Spanish I*

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 interest to students are included.

Prerequisite: SPAN 111, or two years of high school Spanish or equivalent

SPAN 113 Intermediate Spanish II*

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. are integrated into the course.

Prerequisite: SPAN 112 or equivalent

SPAN 113 Intermediate Spanish II (for international management honors students)*

Through oral discussion of relevant readings, the student achieves a more sophisticated level of conversation. Emphasis on political, economic and business issues in Spanish America today.

Prerequisite: SPAN 112 or equivalent

SPAN 114 Contemporary Spanish for Native Speakers

A study of the oral and grammatical structure in today's standard Spanish. Intensive practice in oral and written composition. For native speakers only.

Prerequisite: Written permission of departmental Spanish advisor

SPAN 115 Spanish Mini Course I†

SPAN 116 Spanish Mini Course II

SPAN 117 Spanish Mini Course III

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 are combined with an introduction to Hispanic culture as it exists in the United States.

Each mini course: 1 credit

SPAN 118 Spoken Spanish for Tourists

Develops the student's ability to speak, understand and read basic and simplified Spanish.

SPAN 120-121 Intensive Spanish I & II

A concentrated course in first- and second-year Spanish designed to develop the student's ability to read, write, understand, and speak everyday Spanish. Covers the basics of vocabulary, pronunciation and sentence structure. Readings and discussions enable the student to acquire the tools needed to master conversational skills.

6 credits

SPAN 198 Intensive Course in Conversational Spanish I

SPAN 199 Intensive Course in Conversational Spanish II

An intensive course designed to further develop the student's ability to understand, read, write and speak modern Spanish. Reviews the basics of vocabulary, pronunciation and sentence structure and teaches the student a more sophisticated level of conversation.

Each course: 3 credits

SPAN 200 Introduction to Spanish Culture and Literature

An introduction to the cultural and literary heritage of Spain and Spanish America from medieval times to the present.

SPAN 221 Spanish: The Spoken Language

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.

Prerequisite: Intermediate-level proficiency

SPAN 222 Advanced Spanish Conversation and Composition

Advanced oral and written communication with 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.

Prerequisite: Intermediate-level proficiency

SPAN 230 Introduction to Spanish Literature I

Survey of Spanish literature from the beginning to 1700.

Prerequisite: Intermediate-level proficiency

SPAN 231 Introduction to Spanish Literature II

A survey of Spanish literature from 1700 to the present.

Prerequisite: Intermediate-level proficiency

SPAN 240 Hispanic Culture I: Spain

Synthesis of the cultural characteristics of Spain, as expressed through the centuries in literature, art, philosophy and social institutions.

Prerequisite: Intermediate-level proficiency

SPAN 241 Hispanic Culture II: Spanish America

Synthesis of cultural characteristics of Spanish America, as expressed through the centuries in literature, art, philosophy and social institutions.

Prerequisite: Intermediate-level proficiency

SPAN 300 Twentieth-Century Spanish Literature in Translation

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

Some masterpieces of Spanish literature are discussed from the point of view of their universal appeal. *Don Quixote* by Cervantes; *The Cid*; *Life is a Dream* by Calderón; *the Celestina*; and *Tirso de Molina's dramatic prototype of Don Juan*.

SPAN 302 Caribbean Culture and Literature of the Twentieth Century

A study, conducted in English, of the Spanish American social and literary traditions in the Caribbean area (Dominican Republic, Puerto Rico, and Cuba) and 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, others.

*One hour lab work per week required.

†Students planning to take all 3 levels must register for all levels during the registration period.

SPAN 330 Spanish Literature of the Twentieth Century

Selective study of 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.

Prerequisite: Intermediate-level proficiency

SPAN 331 The Golden Age of Spain

The great creations of the Spanish Golden Age, *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* is also included.

Prerequisite: Intermediate-level proficiency

SPAN 332 The Drama of the Golden Age

A 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.

Prerequisite: Intermediate-level proficiency

SPAN 333 The Literature of Spain until the Renaissance

A study of early literature of Spain from the *Cantar de Mio Cid* to *La Celestina*. Writers such as the Arcipreste de Hita, Don Juan Manuel and Fernando de Rojas are read intensively.

Prerequisite: Intermediate-level proficiency

SPAN 334 Romanticism in Spain: Prose and Poetry

A study of poetry and prose of the Spanish romanticists. In the Post-Romantic period special attention is given to Bécquer and the aesthetics of the new poetry.

Prerequisite: Intermediate-level proficiency

SPAN 335 Modern Spanish American Drama

A study of representative dramatists from 1900 until the present. Writers included are Florencio Sánchez, Usigli, Marqués, Wolff, Arriá, Solórzano, Dragún and Villaurrutia.

Prerequisite: Intermediate-level proficiency

SPAN 336 Modernismo

A study of the modernismo literary movement in Spanish America, from its beginning in 1882 to its conclusion in, approximately, 1917. Includes 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 and others who comprise the second generation.

Prerequisite: Intermediate-level proficiency

SPAN 337 The Romantic Theatre in Spain

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*.

Prerequisite: Intermediate-level proficiency

SPAN 430 The Literature of Spanish America to Modernism

A study of main developments, literary currents and representative authors from the colonial period until 1888.

Prerequisite: Completion of one 300-level course in Spanish

SPAN 431 The Modern Literature of Spanish America

A study of main developments, literary currents and representative authors from 1888 until the present.

Prerequisite: Completion of one 300-level course in Spanish

SPAN 432 The Novel in Spanish America I

A study of selected novels representative of such movements and literary currents as romanticism, realism, naturalism and modernismo in Spanish America.

Prerequisite: Completion of one 300-level course in Spanish

SPAN 433 The Novel in Spanish America II

A study of selected novels of the Mexican Revolution and representative novels of such movements as regionalismo, criollismo and realismo mágico, among others.

Prerequisite: Completion of one 300-level course in Spanish

SPAN 434 The Nineteenth-Century Novel of Spain

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.

Prerequisite: Completion of one 300-level course in Spanish

SPAN 435 Cervantes and His Age

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.

Prerequisite: Completion of one 300-level course in Spanish

SPAN 436 The Modern Spanish American Essay

A selective study of the representative essay writers in Spanish America. Emphasis is placed on major opinion shapers, such as Varona, de Hostos, Rojas, Reyes, Henríquez Ureña, Picón Salas, Arciniegas, Mariátegui, others.

Prerequisite: Completion of one 300-level course in Spanish

SPAN 480 Seminar: Spanish America

Puerto Rican literature: José Martí, Rubén Darío, others.

Prerequisite: One 300-level course in Spanish American literature

SPAN 481 Seminar: Spain

An in-depth study of a selected author or theme, such as Quevedo, the Spanish Mystics, the picaresque novel, others.

Prerequisite: One 300-level course in Spanish literature

SPAN 499 Independent Study

As approved by the department.

1-3 credits

Teaching Endorsements

To obtain endorsements as a teacher in bilingual/bicultural education or English as a second language, complete the appropriate program below, combined with a bachelor's degree program leading to teaching certification.

BILINGUAL/BICULTURAL EDUCATION		24 credits
TBED 301	Theories and Practices in Bilingual Education and E.S.L.	3
TBED 303	Social and Psychological Development of the Bilingual Child	3
TBED 304	Curriculum Development and Evaluation in Bilingual Education	3
TBED 305	Language and Culture of Hispanic Peoples	3
TBED 309	Introduction to Linguistics	3
TBED 318	Field Experience (Spanish)	3
or		
TBED 319	Field Experience (English)	3
TBED 402	Methodology of Second Language Teaching	3
Plus one bilingual/bicultural course or practicum.		

Note: The state language proficiency examinations in English and in Spanish or another foreign language must be passed.

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ENGLISH AS A SECOND LANGUAGE

30 credits

TBED 301	Theories and Practices in Bilingual Education and E.S.L.	3
TBED 302	Language and Culture of Hispanic Peoples	3
TBED 303	Social and Psychological Development of the Bilingual Child	3
TBED 305	Language and Culture of Caribbean Peoples	3
TBED 309	Introduction to Linguistics	3
TBED 319	Field Experience (English)	3
ENG 401	Linguistics and Grammar	3
ENG 402	Development of the English Language	3

Plus one course in a language other than English, and one linguistics course or other suitable course by advisement.

Note: The state language proficiency examination in English must be passed.

Courses

Unless otherwise noted, all courses are for 3 credits.

TBED 301 Theories and Practices of Bilingual Education and English as a Second Language

Examines the history of bilingual education in the U.S.A. and discusses the basic philosophy of bilingual education through an analysis of various known models of bilingual programs.

TBED 302 Language and Culture of Hispanic Peoples

Deals with the linguistic, socio-political and cultural aspects of the Spanish-speaking world. The history of the Iberian peninsula, the colonization of Latin America and its subsequent struggle for independence, and the language and culture of the Hispanic people who have immigrated to the United States are covered.

TBED 303 Social and Psychological Development of the Bilingual Child

Examines the problems faced by Hispanic children in urban American schools as a result of linguistic, cultural, social and psychological factors.

TBED 304 Curriculum Development and Evaluation in Bilingual Education

A critical analysis of current models of bilingual/bicultural programs. Students are guided in the development of bilingual materials in their fields of interest. Creative use of audio visual materials is stressed.

TBED 305 Language and Culture of Caribbean Peoples

Examines 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 309 Introduction to Linguistics

Provides basic information about the analysis and description of language and how human beings use language to communicate with one another, and familiarizes students with the linguistic terminology needed for more specialized linguistic courses.

TBED 318 Field Experience (Spanish)

A field experience 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.

Prerequisites: Three courses in the program and prior application with the Office of Field Laboratory Experiences

TBED 319 Field Experience (English)

A field experience 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.

Prerequisites: Three courses in the program and prior application with the Office of Field Laboratory Experiences

TBED 400 Teaching Reading in Spanish to Spanish Children

Geared toward the development of new approaches that will make learning to read pleasurable. Attained by associating the immediate environment with the written symbols so as to awaken the potentialities of the learner.

Prerequisite: Knowledge of the four communication skills in Spanish

TBED 402 Methodology of Second Language Teaching

Emphasizes language techniques and methods necessary to teach a second language to students. Attention is given to the audio-lingual approach and how it differs from the formalistic reading-writing methods taught in English.

Other Languages

Chinese

CHIN 110 Basic Chinese I*

Provides students with a basic understanding of Chinese pronunciation, grammar and knowledge of some Chinese characters and basic vocabulary. Emphasis is on drilling aural comprehension and elementary speaking of standard Chinese.

CHIN 111 Basic Chinese II*

A continuation of Basic Chinese I. Equal attention 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.

Prerequisite: CHIN 110 or equivalent

CHIN 112 Intermediate Chinese I*

Following continued training in fluent and accurate speech, students learn new vocabulary and more complicated sentences. Stress on the understanding and absorbing of sentence patterns which serve as a foundation for further study. Students also learn the simplified Chinese characters of contemporary communist literature.

Prerequisite: CHIN 111 or equivalent

CHIN 113 Intermediate Chinese II*

An intensification of CHIN 112. Students are introduced to a variety of topics in modern Chinese and work toward the goal of recognizing approximately 1200 lexical items, including 1000 characters. Students also learn how to write short compositions.

CHIN 115 Chinese Mini Course I†

CHIN 116 Chinese Mini Course II

CHIN 117 Chinese Mini Course III

Designed for beginners who are interested in but reluctant to study the Chinese language. Contains three levels in sequence. A student earns one credit at each level completed. Provides students with some basic knowledge of Chinese characters, pronunciation, grammar and sentence patterns.

Each mini course: 1 credit

CHIN 120 Conversational Chinese

Designed to meet the needs of students who have completed basic and intermediate Chinese language courses and who desire to continue learning this language. Particular attention paid to improving speaking ability.

Prerequisite: CHIN 113 or equivalent

CHIN 198 Intensive Course in Conversational Chinese I

CHIN 199 Intensive Course in Conversational Chinese II

Designed for students who desire to master the Chinese language as quickly as possible. Students learn characters, grammar and various sentence patterns. Equal attention is given to reading, speaking and writing. Since fluency in speaking and facility in reading Chinese can only be achieved by constant practice, students must practice intensively.

3 credits each

*One hour lab work per week required.

†Students planning to take all 3 levels must register for all levels during registration period.

CHIN 200 Introduction to Chinese Culture and Literature

An introduction to the cultural and literary heritage of China from its beginnings to the present time. The course, taught in Chinese, aims at a better understanding of Chinese culture and literature through the study of its sublime literary masterpieces.

CHIN 221 Chinese: The Spoken Language

A guided introduction to the phonology of modern Chinese based on a descriptive and structural analysis of the Chinese sound system. Features the Peking dialect, the standard mode of speech all over China and the chief basis of Putonghua, the national language.

Prerequisite: Intermediate-level proficiency

CHIN 222 Advanced Chinese Conversation and Composition I

Concentrates on consolidating the foundations of pronunciation, grammar and character writing built in the first two years of study. Emphasis on discussing topics of general interest and writing essays.

Prerequisite: Intermediate-level proficiency

CHIN 223 Advanced Chinese Conversation and Composition II

A continuation of CHIN 222. Provides a wide range of more advanced vocabulary and a number of common sayings, as well as a metaphorical use of common words which form part of the verbal and cultural backgrounds of Chinese people.

Prerequisite: CHIN 222 or equivalent

CHIN 300 Introduction to Chinese Literature (in English)

Aims at a basic knowledge of Chinese literature through the study of its literary masterpieces. Students become acquainted with some of the poetry, drama and novels of the leading Chinese authors.

CHIN 310 Oriental Literature in Translation

Aims to give students a first glimpse of the wide and fertile field of Asian literature. Students become acquainted with some of the major Chinese and Japanese authors. Selections are chosen with attention to the best understanding of the mind and thought of Asian people. Among the authors studied are Wu Ch'eng-En, Feng Meng-lung, LiPo, Ts'ao Hsueh-ch'in, King Shington, Murasaki, Kanami, Seami, Kawabata and Motoyasu.

CHIN 320 Introduction to Chinese Culture

Offers students a first glimpse at Chinese culture. Particular attention is given to the intellectual foundation of Chinese civilization. Deals with Chinese religious conception, Confucianism, Taoism, Mo Tzu, Buddhism and social changes in the past hundred years.

CHIN 499 Chinese Independent Study

As approved by the department.
1-3 credits

German**GER 110 Basic German I***

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*

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.

Prerequisite: GER 110 or equivalent

GER 112 Intermediate German I*

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.

Prerequisite: GER 111, or two years of high school German or equivalent

GER 113 Intermediate German II*

Development of free conversation with the aid of newspapers, magazines, tapes, recordings. Topics of contemporary interest provide a basis for an up-to-date, comprehensive view of Germany.

Prerequisite: GER 112 or equivalent

GER 499 German Independent Study

As approved by the department.
1-3 credits

GER 120 Scientific German

Designed for potential science majors and minors. Students receive guidance in reading current scientific and technological journals independently.

GER 200 Introduction to German Culture and Literature

An introduction to the cultural and literary heritage of Germany from prehistoric times to the present.

Greek**GR 110 Classical Greek for Beginners I**

An introductory course which provides the student with the basic elements of classical Greek. Primary emphasis is on structure and morphology; the aim is a graded reading knowledge. Since classical Greek is a non-living language, classes 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

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 and taught how to handle variations of words with the aid of a dictionary in order to translate written material.

GR 499 Greek Independent Study

As approved by the department.
1-3 credits

Hebrew**HEBR 110 Basic Hebrew I***

The elements of Hebrew: elementary conversation, writing, fundamentals of grammar and reading of simple texts.

HEBR 111 Basic Hebrew II*

Continuation of Hebrew I: readings of texts of medium difficulty, conversation and more complicated grammatical structures.

HEBR 112 Intermediate Hebrew I***HEBR 113 Intermediate Hebrew II***

Students are exposed to Hebrew literature in the form of simplified literary selections. The expression of a wider range of ideas is the goal of basic conversation.

HEBR 499 Hebrew Independent Study

As approved by the department.
1-3 credits

Italian**IT 110 Basic Italian I***

Designed for students with no previous knowledge of Italian; aims at developing basic Italian speech patterns. After a thorough study of Italian pronunciation and intonation, the student develops a basic Italian vocabulary and learns how to use the Italian verb.

IT 111 Basic Italian II*

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*

Designed for students who have a basic proficiency in Italian. Aims at strengthening the four language skills. Basic language patterns are reviewed, and new ones assimilated through conversation, reading and composition.

Prerequisite: IT 111, or two years of high school Italian or equivalent

*One hour per week lab work required.

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IT 113 Intermediate Italian I*

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.
Prerequisite: IT 112 or equivalent

IT 200 Introduction to Italian Culture and Literature

An introduction to the cultural and literary heritage of Italy from its beginnings to the present time.

IT 230 Twentieth-Century Italian Literature

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

A study of selected writers who illustrate the main currents of twentieth-century Italian literature: Pirandello, Montale, Moravia, Pavese, Betti, Ungaretti, and others.

IT 499 Italian Independent Study

As approved by the department.
1-3 credits

Japanese

JPAN 110 Basic Japanese I*

Begins with an introduction to the Japanese sound system and to the romanization used in the textbook. Students are taught simple Japanese sentences with vocabulary introduced in a natural context and introduced to the hiragana and katakana syllabaries. Equal attention is given to listening, speaking, reading and writing.

JPAN 111 Basic Japanese II*

A more in-depth study of the Japanese sound system and the romanization used in the textbook. Students are taught more challenging vocabulary and sentence structure. The hiragana and katakana syllabaries are studied as well. Equal attention is given to speaking, reading, writing and comprehension.

JPAN 112 Intermediate Japanese I*

The course, designed as a continuation of Basic Japanese I and II, further increases the students' knowledge of Japanese grammar, vocabulary and idioms, and characters, building on the previously acquired foundation in Japanese.
Prerequisite: JPAN 111 or equivalent

JPAN 113 Intermediate Japanese II*

A continuation of Intermediate Japanese I. Further increases the students' knowledge of Japanese grammar, vocabulary and idioms, and characters, building on the previously acquired foundation in Japanese.
Prerequisite: JPAN 112 or equivalent

JPAN 115 Basic Japanese Mini Course I†

JPAN 116 Basic Japanese Mini Course II

JPAN 117 Basic Japanese Mini Course III

Begins with an introduction to the Japanese sound system and to the romanization used in the textbook. Students are taught simple Japanese sentences, which introduce new vocabulary in a natural context. Equal attention is given to listening, speaking, reading and writing. Toward the middle of the course, the hiragana and katakana syllabaries are introduced.
Each mini course: 1 credit

JPAN 499 Japanese Independent Study

As approved by the department.
1-3 credits

Latin

LAT 110 Latin for Beginners I

Introduces the basic elements of classical Latin. The student is exposed to the cultural and historical background of the Romans as a means of understanding the Roman contribution to our age and culture.

LAT 111 Latin for Beginners II

Reading and translating complex forms of classical Latin, stressing correlations with the English language.
Prerequisite: LAT 110, or high school equivalent

LAT 499 Independent Study

As approved by the department
1-3 credits

Portuguese

PORT 110 Basic Portuguese I

PORT 111 Basic Portuguese II

An introductory two-part course in modern Portuguese. The skills of understanding, speaking, reading and writing Portuguese are developed insofar as the realities and limitations of learning a foreign language in a classroom allow. Cultural information about Portugal, Brazil and other Portuguese-speaking countries is provided in conjunction with the acquisition of the language skills.
3 credits each

Russian

RUS 110 Basic Russian I*

An introduction to the Russian language, familiarizing the student with the Russian alphabet and Russian pronunciation, elementary grammar and conversation.

RUS 111 Basic Russian II*

A continuation of Basic Russian I; more detailed study of grammar, practice in reading, writing, comprehension and speaking.

RUS 112 Intermediate Russian I*

A review of grammar fundamentals, followed by a study of advanced grammatical structure and idiom; reading of a variety of texts, composition and conversation.

RUS 113 Intermediate Russian II*

A continuation of Intermediate Russian I. Selected problems in grammar, sentence structure and idiomatic expression; a series of readings of moderate difficulty, with emphasis on reading comprehension and conversation.

RUS 115 Russian Mini Course I†

RUS 116 Russian Mini Course II

RUS 117 Russian Mini Course III

An introduction to the Russian language. The aim is to develop the student's ability to understand, read, write and speak basic and simplified Russian.

1 credit each mini course

RUS 499 Russian Independent Study

As approved by the department.
1-3 credits

*One hour lab work per week required.

†Student planning to take all 3 levels must register for all levels during registration period.

Department of Philosophy

Professors—M. Hailparn, A. Juffras, W. McKeefery (chairman)

Associate Professors—S. Choi, M.L. Friquegnon, P. Rothenberg

Assistant Professors—R. Myatt, J. Peterman

For students interested in the entire spectrum of knowledge. Widely accepted and long-held attitudes and beliefs in the arts, physical sciences, social sciences, and mathematics are critically examined.

MAJOR REQUIREMENTS 30 credits

PHIL 110	Introduction to Philosophy	3
PHIL 130	Ethics	3
PHIL 180	Logic	3

Plus one of the following:

PHIL 312	Metaphysics	3
PHIL 317	Theory of Knowledge	3
PHIL 321	Philosophy of Art	3

Plus one of the following:

PHIL 326	Plato	3
PHIL 327	Aristotle	3
PHIL 330	David Hume and the Skeptic Tradition	3
PHIL 404	Seminar: Classics in Philosophy	3
PHIL 480	Senior Seminar	3

Plus two additional courses in the history of philosophy from the following:

PHIL 190	The History of Ancient Philosophy	3
PHIL 202	The History of Modern Philosophy from Descartes to Kant	3
PHIL 331	Nineteenth Century Philosophy: Post-Kantian German Idealism	3

Plus nine credits of philosophy electives 9

MINOR REQUIREMENTS 15 credits

Students must complete 15 credits of philosophy courses with no more than six credits on the 100-level.

Courses

Unless otherwise noted, all courses are for 3 credits.

PHIL 110 Introduction to Philosophy

Representative problems of philosophy, ranging from methods of inquiry, moral dilemmas, religious knowledge, problems of existence, artistic judgment and criticism to political and social philosophy.

PHIL 120 Philosophy of Religion

An analytic study of religious beliefs. Emphasis on 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 East and West.

PHIL 130 Ethics

This course is taught in one 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) an attempt 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 140 Critical Thinking and Scientific Method

Covers methods of inquiry as used in empirical research. Explanation, hypothetico-deductive method, confirmation, and types of inductive thinking form the basis of the course. In addition, special attention is given to relating course material to the thinking of the student.

PHIL 180 Logic

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 are shorter tests of validity and consistency. Recommended for debaters, lawyers, public speakers and computer science majors.

PHIL 190 The History of Ancient Philosophy

The history of philosophy from the Pre-Socratics through Socrates, Plato, Aristotle, the Stoics, the Epicureans and early Neoplatonists. Recommended for 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

Deals with the seventeenth and eighteenth centuries, principally with the following problems: 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

A comparative study of the principal past and present Eastern religions and of man's religious feelings and experience.

PHIL 206 Western Religion

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

Examines such existential themes as death, freedom, responsibility, subjectivity, anguish, time and the self as they appear in both literary and philosophical works. Phenomenology as one philosophical method which can be applied to such themes is considered. Includes the works of Sartre, Kierkegaard, Camus, Kafka, Heidegger, and others.

PHIL 266 Philosophy of the Social Sciences

Deals with the logic of social inquiry. Asks whether customary scientific methods apply to the social sciences. Examines explanatory proposals; e.g., hermeneutic interpretation (*verstehen*), functionalism, structuralism, behaviorism, et al.

PHIL 231 Philosophy of the Future

Emphasizes the future rather than the past. Various "futuristic" visions for the next twenty to thirty years and the projection techniques used are examined in the context of how the future will affect people and their environments.

PHIL 309 Studies in the Utopian Theme

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, emphasis is on the relevance of past questions and answers to the dilemmas of contemporary society.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 310 Political Philosophy

Explores the relation between the state and the individual, asking what obligations and duties each has to the other. Also considers acts of civil disobedience and resistance and inquires into the role of tolerance in contemporary society.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 312 Metaphysics

Several traditional and recent views of the problem of existence and associated problems are discussed. Included are 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

An introduction to philosophical ideas of the Middle Ages among Christians, Muslims and Jews. Emphasis on metaphysics of Augustine, Avicenna and Maimonides, and the works of Aquinas and Ockham.

Prerequisite: One prior course in philosophy or permission of the instructor

WILLIAM PATERSON COLLEGE

PHIL 315 Philosophy of Mind

The philosophical problems associated with the relation of mind and body, mind and matter, willing and acting. Also, a consideration of some representative solutions ranging from monism, dualism, epiphenomenalism, psycho-physical parallelism and behaviorism. Recent research in psychology, neurophysiology and robot and computer automata studies is considered.

Prerequisite: One previous course in philosophy

PHIL 316 Philosophy of History

A philosophical examination of historical language and inquiry, the logic of historical development, problems of historical explanation and generalization, and value judgments.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 317 Theory of Knowledge

An examination of the philosophical issues surrounding the notions of necessary truth, empirical knowledge, a priori knowledge, analytic statements, and related topics. Views of traditional and contemporary philosophers are discussed.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 318 American Philosophy

An introduction to American philosophy through reading and examining selected writings of such classical American philosophers as Pierce, James, Royce, Dewey and Santayana.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 321 Philosophy of Art

An examination of theories of art from Plato to Dewey. The role of inspiration, intelligence, skill, expression, experience and emotion in the arts is discussed.

Prerequisite: One previous course in philosophy

PHIL 323 Introduction to Marxism

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 are considered in terms of their philosophical antecedents and are subjected to analysis within the content of the development of philosophical attempts to understand the nature of reality. Issues in epistemology and metaphysics are raised.

PHIL 324 Philosophy of Sexual Politics

The application of philosophical techniques of analysis to a study of the nature and position of women in contemporary society. Focus is on critical evaluation of the alternate models for understanding women's oppression. Selected writers include Eva Figes, Betty Freidan, Simone de Beauvoir, Frederick Engels and Shulamith Firestone.

PHIL 325 Philosophy of Science

Analyzes the logic of scientific inquiry and the logical structure of its intellectual products. Primarily an examination of both logical patterns exhibited in the organization of scientific knowledge and logical methods whose use, despite changes in special techniques and revolution in substantive theory, is the most enduring feature of modern science.

Prerequisite: One previous course in philosophy and logic

PHIL 326 Plato

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* and other dialogues.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 327 Aristotle

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; in the *Ethics* the theories of virtue, deliberation and happiness. A study of Aristotle's *Poetics* is also included.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 330 David Hume and the Skeptic Tradition

A brief study of the skeptic tradition from the sixteenth century to Hume. An intensive study of Hume's principal works covers his views on "the origin of ideas," meaning, causality, science, induction, the proofs of God's existence, his relation to Locke and other predecessors, and his influence on Kant.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 331 Nineteenth Century Philosophy: Post-Kantian German Idealism

An introduction to 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.

Prerequisite: One prior course in philosophy or permission of the instructor

PHIL 333 Philosophy of Law

Deals with both the development of law and an analysis of its principles and concepts. Examines and discusses the relationship between law and morality and law and justice; the logical principles in legal arguments; and various kinds of legal theories; e.g., natural law, legal positivism and legal realism.

PHIL 334 Business and Ethics

A study of large corporations as quasi-political and social institutions. Examines capitalism as a revolutionary force of the twentieth century and the consequences for society implied in the social attitudes that prevail and endure in these institutions.

Prerequisite: PHIL 130

PHIL 336 From Religion to Philosophy

Covers the transition from a reliance on prophets, poets, dramatists and the "wise man," to a reliance on the philosopher in matters dealing with human action, inquiry and artistic products.

PHIL 337 Greek Political Philosophy

Covers the development of Greek political ideas from the Homeric age up to and including the historical Polybius. Focal points are: Sophists, Socrates, Isocrates, Thucydides, Plato and Aristotle. Changes in political ideas are carefully placed in their historical context.

PHIL 399 Selected Topics

A study of special areas of philosophic concern. Topics vary from semester to semester in response to student demand and professional interest and are announced in current master schedules.

PHIL 402 Advanced Logic

A study of the nature of a formal deductive system, including the proofs of completeness, consistency and independence. The equipollence of deductive systems is also examined, and more advanced notions of predicate logic, multiple quantification, higher functional logic and logic of relations are covered.

Prerequisite: One prior course in logic

PHIL 404 Seminar: Classics in Philosophy

A classic work in philosophy is explored in depth from among the following: one of Plato's dialogues, a treatise on Aristotle, Augustine, St. Thomas, or works such as Kant's *Critique of Pure Reason*, Mill's *Utilitarianism*, James' *Pragmatism*, et al.

PHIL 421 Contemporary Analytic Philosophy

A study of the development of an important philosophical movement of the twentieth 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 499 Independent Study

As approved and to be arranged
1-3 credits

Note: See also courses listed under Humanities, p. 58.

MATH 423 Real Analysis

Riemann integration, measurable sets, measurable functions, Lebesgue integration, metric spaces, completeness and selected topics.

Prerequisite: MATH 302

MATH 424 Introduction to Numerical Analysis

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.

Prerequisite: MATH 322

MATH 425 Introduction to Topology

Topological spaces and their properties; Homeomorphisms and invariant properties; separation and countability axioms; network theory and applications.

Prerequisite: MATH 302

MATH 430 Probabilistic Modeling

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.

Prerequisite: MATH 161

MATH 499 Independent Study

As approved and to be arranged.

1-3 credits.

The School of Management

Berch Haroian, Dean
Office: White Hall E1

The School of Management offers major and minor programs in accounting, business administration, computer sciences, criminal justice administration, economics and public administration.

For the exceptional student, there is a special interdisciplinary honors program in international management.

Special student needs are met through flexible arrangements that combine both work and education in a cooperative education program with major firms.

Standards

All freshman students intending to major in accounting, business administration, economics, or the business, economics or accounting track in computer science, must follow a "structured curriculum" for the first 30 credits.

ACCT 211	Principles of Accounting I	3
ACCT 212	Principles of Accounting II	3
ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3

The remaining 18 credits are chosen from among general education courses in consultation with the student's academic advisor. Freshman students intending to major in criminal justice administration or the physical and natural sciences or social and behavioral sciences tracks in computer science must follow a similar curriculum for the first 30 credits, selected in consultation with their academic advisors. All students, at the completion of 30 credits, must have attained a grade point average of 2.5 or better. Students who do not meet this standard may not continue in a major program in the School of Management and will be referred to the Office of Educational Services for counseling.

Transfer students seeking admission to a major program in the School of Management must have attained an overall grade point average of 2.5 or better at the institution(s) from which they are transferring and must have satisfied other appropriate curricular requirements.

The Honors Program in International Management

The honors program in international management offers students the opportunity to combine pre-professional education in business administration with the internationalist perspective of the liberal arts. The courses' major goals are: 1) to prepare students for careers and for further study in international economic and business affairs, with specific attention to East Asian, European and Latin American areas; 2) to associate the concept of honors with both an intercultural perspective and second language proficiency; 3) to promote the concept that the well-prepared manager is a Renaissance person whose education encompasses a broad range of academic studies.

Students achieve an understanding of both economics and business administration in an international context, and a comprehensive knowledge of a given world area—its language, history, politics and ethnology. While curriculum models vary according to the honors candidate's major (economics, accounting, business administration, political science, history, geography, sociology or foreign languages), the choice of area studies determines the combination of language and area study courses.

One of the most important requirements of the program is proficiency in a second language: Chinese or Japanese for East Asian studies; Spanish or Portuguese for Latin American studies, French or German for European studies. Students interested in the program are advised to enroll in appropriate foreign language courses as early as possible in their college careers. Special sections of intermediate-level language courses emphasize readings in economics and politics and the vocabulary of business and diplomacy. Likewise, a senior seminar in economic development makes use of extensive readings in the language of the appropriate area study.

COMMON CORE REQUIREMENTS 41 credits

Economics		
ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3
ECON 210	Economic Statistics I*	3
ECON 211	Economic Statistics II*	3
ECON 370	International Economics (honors section)	4
ECON 390	Comparative Economic Systems	3

*A one-semester condensed honors section may be substituted for Economic Statistics I & II

Business		
BUS 309	International Management	3
BUS 320	Corporation Finance	3
BUS 399	Marketing in an International Setting (honors section)	4

Accounting		
ACCT 211	Principles of Accounting I†	3
ACCT 212	Principles of Accounting II†	3

†A one-semester condensed honors section may be substituted for Principles of Accounting I & II.

Political Science		
HPIM 213	Sophomore Honors Colloquium	1
HPIM 480	Senior Honors Seminar in Economic Growth, Development and Problems (different sections for East Asia, Europe and Latin America)	2
POL 240	International Relations	3

AREA STUDY REQUIREMENTS 18-30 credits

Foreign Language
Student must demonstrate intermediate-level fluency in the appropriate language, usually by successfully completing 2-4 semesters of college-level courses.

History
Choose at least one course from each of the following groups:

FAR EAST		
HIST 265	Modern Japan	3
HIST 270	Traditional China	3
HIST 271	Modern China	3

LATIN AMERICA		
HIST 380	Colonial Latin America	3
HIST 381	Modern Latin America	3
HIST 382	Puerto Rico, Cuba and the Caribbean World	3

EUROPE		
HIST 307	Social History of Modern Europe	3
HIST 333	Modern British History	3
HIST 338	Europe since 1914	3

Choose at least one course from each of the following areas:

Sociology/Anthropology		
SOC 341	Latin American Ethnology	3
SOC 342	East Asian Ethnology	3
SOC 343	European Ethnology	3

Political Science		
POL 332	European Political Systems	3
POL 337	Politics of Latin America	3
POL 480	Seminar in Political Science	3

Geography		
GEO 331	Asia's Geography and Problems	3
GEO 333	Europe's Geography and Problems	3
GEO 335	Latin America's Geography and Problems	3

Department of Accounting and Law

Accounting

Professor—I. Alpert

Associate Professor—R. Davis

Assistant Professors—N. Bassano, F. Grippo, G. Kahn, R. Maresco, B. Pritchep, M. Rudnick (chairman), A. Weinstein

William Paterson College offers an extensive program in the field of accounting, which prepares students for positions in two general areas, public accounting and private accounting.

Public Accounting

Students who successfully complete the accounting curriculum meet the minimum requirements set forth by the State Board of Accountants, and are allowed to sit for the C.P.A. examination. Special review courses are offered to assist students in meeting standards of the board. After successful completion of the examination, a two-year work requirement is needed to receive a certificate.

Most C.P.A.'s practice as individuals or in major firms. A growing trend in recent years has been the C.P.A.-manager who combines the skills of the accounting professional with managerial qualities needed in business.

State C.P.A. requirements to qualify for examination are as follows:

1. Applicant must be 18 years old.
2. Applicant must:
 - a. Be a resident of the State of New Jersey, or
 - b. be in the employ of a certified public accountant or firm or certified public accountants having an office and performing services in the State of New Jersey, or
 - c. be engaged in the State of New Jersey for the regular practice of public accounting.
3. Education: See below.
4. Examinations are given twice a year, in May and November. Students must file a completed application in the Office of the Secretary on or before March 1st for the May examination or September 1st for the November examination. Residency determines examination site—northern or southern locations.
5. When requested, applicant must appear before the board and/or any character committee appointed by the board.
6. It is the responsibility of the applicant to familiarize himself with the Rules of Professional Conduct. It is written in the Accountancy Law that every applicant for the C.P.A. Certificate is bound by these rules.

Accounting Honors Track

In an effort to recognize exceptional students in the accounting curriculum and to prepare students to keep abreast of the current needs of the profession, the School of Management has created an accounting honors track.

The honors track is open to undergraduates who intend to pursue a career and obtain certification in the field of public accounting. Upon meeting specific academic and grade point requirements—sophomore standing, completion of Accounting I and II, and a 3.0 grade point average—students accepted into this program take courses with full-time members of the school's accounting faculty and are required to attend all accounting major courses as a group. Upon successful completion of this major course of study, a student is awarded a bachelor of arts in public accounting.

Private Accounting

For students who are not interested in pursuing a C.P.A. but are interested in responsible financial positions, the program outlined below makes provision for the professional flexibility that both public agencies and private firms require of students entering the field of finance.

MAJOR REQUIREMENTS 33 credits

ACCT 211	Principles of Accounting I	3
ACCT 212	Principles of Accounting II	3
ACCT 311	Intermediate Accounting I	3
ACCT 312	Intermediate Accounting II	3
ACCT 340	Cost Accounting I	3
ACCT 341	Cost Accounting II	3
ACCT 370	Auditing	3
ACCT 410	Taxation I	3
ACCT 411	Taxation II	3
ACCT 420	Advanced Accounting	3
ACCT 430	CPA Review Course	3

DIRECTED ELECTIVES 6 credits

BUS 252	Business Law II*	3
ECON 310	Money and Banking	3

ADDITIONAL REQUIRED CREDITS 15 credits

Students may choose from among accounting, business, economics or computer and statistics courses other than major courses or directed electives outlined above.

*C.P.A. candidates should defer this course until senior year.

MINOR REQUIREMENTS 18 credits

ACCT 211	Principles of Accounting I	3
ACCT 212	Principles of Accounting II	3
ACCT 311	Intermediate Accounting I	3
ACCT 312	Intermediate Accounting II	3
ACCT 340	Cost Accounting I	3
ACCT 370	Auditing	3

Courses

Unless otherwise noted, all courses are for 3 credits.

ACCT 211 Principles of Accounting I

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

Introduces accounting for partnerships and corporations. Also, basic concepts of cost accounting, taxation and the use of accounting as a decision-making tool for management.

Prerequisite: ACCT 211

ACCT 311 Intermediate Accounting I

Review of basic financial statements and in-depth study of accounting principles advanced by responsible professional organizations in the classification, presentation and disclosure of assets required for external users of financial information.

Prerequisite: ACCT 212

ACCT 312 Intermediate Accounting II

In-depth study of accounting principles advanced by responsible professional organizations in the classification, presentation and disclosure of liabilities and stockholders' equity required for external users of financial information.

Prerequisite: ACCT 311

ACCT 340 Cost Accounting I

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.

Prerequisite: ACCT 312

ACCT 341 Cost Accounting II

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.

Prerequisite: ACCT 340

ACCT 370 Auditing

Reviews 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.

Prerequisite: ACCT 312

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ACCT 410 Taxation I (same as BUS 410)

A study of the U.S. Internal Revenue Code with emphasis on income taxation of individuals. Provides practice in the preparation of tax returns and solution of case problems. Concentrates on the problems of U.S. individual income tax. Also examines taxation of corporations and partnerships. Prerequisite: ACCT 212

ACCT 411 Taxation II (same as BUS 411)

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 are also covered. Prerequisite: ACCT 410

ACCT 420 Advanced Accounting

An in-depth study of principles used in accounting for parent and subsidiary companies, partnerships and other specialized areas of accounting. Prerequisite: ACCT 312

ACCT 430 CPA Review Course

Intensive review and analysis of basic and advanced concepts, skills and principles. Imperative for students who intend to apply for a certifying examination. Prerequisite: ACCT 370

ACCT 499 Independent Study

As approved and to be arranged.
1-3 credits

Law

Associate Professors—I. Achebe, R. Bing, G. Sheehan
Assistant Professors—S. Mitchell, J. Wilkerson

At present, the law faculty offers 14 law courses which are open to all students in the College. Designed to acquaint students with the goals, functions and procedures of the United States legal system, this curriculum provides a background for students planning to enter law school as well as those who are interested in law-related fields, such as para-legal work, criminal investigations, public administration, and others. All members of the law faculty are lawyers and are available as pre-law advisors to any student who wishes to apply to law school.

Courses

Unless otherwise noted, all courses are for 3 credits.

LAW 120 Introduction to Law and Legal Systems

A liberal studies survey course for students of all curricula. Designed to acquaint them with the operation of the American legal system. Among topics covered are the law of torts, criminal law and procedures, civil procedures, administrative law and the court systems, both state and federal. Open to all students.

LAW 206 Substantive Criminal Law

Designed to acquaint students with penal codes and concepts such as criminal liability, anticipatory offenses, offenses against the person and property, offenses involving fraud and offenses against public administration. Scrutinizes defenses such as self-defense, insanity, duress, infancy and entrapment.

Open to all students. Prior completion of LAW 120 preferred.

LAW 210 Law of Torts

Designed to acquaint students with the principles of private wrongs for which the courts afford injured parties a remedy in the form of damages. Detailed study of concepts such as assault and battery, libel, false arrest, trespass, malicious prosecution, negligence, malpractice, strict liability and vicarious liability. Also examines defenses such as self-defense, mistake, consent, privilege and necessity.

Open to all students. Prior completion of LAW 120 preferred.

LAW 231 Estate Practice and Decedent Estates

Designed to acquaint students with laws of wills, probate, intestacy and ancillary matters connected with the administration of estates.

Prerequisites: LAW 120 and permission of the instructor

LAW 251 Business Law I—Contracts

Designed to acquaint students with the laws of contracts. Examines concepts such as offer, acceptance, consideration, competent parties, legal subject matter, assignments and third party beneficiaries. Scrutinizes defenses such as statute of frauds, infancy, insanity and parole evidence.

Core course for all School of Management majors. Open to all students. Prior completion of LAW 120 preferred.

LAW 252 Business Law II—Sales and Negotiable Instruments

Acquaints students with Article II, III, IV and IX U.C.C. Critically examines concepts such as warranty, risky loss, bona fide purchases for value, products liability, negotiability, checks, notes, holder in due course and secure transactions.

Prerequisite: LAW 251

LAW 253 Business Law III—Agency Partnerships-Corporations

Designed to acquaint students with the laws of agency partnerships and corporations. Topics include creation, termination and rights and duties of principal and agent; creation, termination, authority, duties, rights of partners; creation, termination, corporate powers, shareholders, management of corporations.

Prerequisite: LAW 251

LAW 306 White Collar Crimes and Consumer Fraud

Designed to acquaint students with the problems involved in prosecuting white collar crimes, such as larceny, embezzlement, fraud, gambling, duress, prostitution, forgery and perjury, which are studied in detail. Critically examines consumer frauds, such as overreading, false advertising and deceit.

Prerequisite: LAW 206 or 251, or permission of the instructor

LAW 308 Procedural Criminal Law

Acquaints students with the machinery and procedures utilized in enforcing penal codes. Critical examination of concepts such as arrest, search and seizure, wiretapping, due process, right to counsel, bail, warrants, fair trial and grand jury. U.S. Supreme Court rulings that control state criminal procedures are used as guidelines.

Prerequisite: LAW 120, 206 or 251, or permission of the instructor

LAW 401 Collective Bargaining

Designed to study the impact of collective bargaining contracts in both the private and public sectors. Detailed study of arbitration and administration of collective bargaining agreements.

Prerequisite: LAW 120 or 251. Juniors and seniors preferred.

LAW 402 Evidence and Civil Procedure

Designed to acquaint students with the rules of evidence in adversary hearings, with the preparation of proceedings and other documents in preparing a civil case for litigation. Critically examines other devices for obtaining information, such as discovery, interrogatories and E.B.T.'s.

Prerequisite: LAW 120 or 251. Juniors and seniors preferred.

LAW 407 Administrative Law and Regulations

Examines the role of bureaucracies on the state and federal levels. Emphasizes the powers and procedures common to all administrative agencies. Concepts such as standing exhaustion finality, rule making power, adjudicatory power, investigatory power and substantial evidence are critically examined.

Prerequisites: LAW 120, 206, 251. Juniors and seniors preferred.

LAW 421 Real Estate I

A detailed study of the principles and practices of real estate, including 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.

Prerequisites: LAW 251, 252

LAW 422 Real Estate II

A study of the law of real estate. Topics 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 types of real estate are distinguished.

Prerequisite: LAW 421

Department of Business and Economics

Business Administration

Professors—D. Erickson, K. Kim, M. Laurence, P. Nayak

Assistant Professor—V. Costigan

Instructors—R. Parthasarthy, M. Sahebi

Students who wish to pursue a broad-based business major should consider the business administration program. The program is grounded in liberal studies and provides strong exposure to a variety of disciplines which allows the student to have maximum flexibility with which to meet the challenges of the current and future job market.

MAJOR REQUIREMENTS 36 credits

BUS 201	Introduction to Management	3
BUS 251	Business Law I	3
BUS 252	Business Law II	3
BUS 310	Marketing	3
BUS 320	Corporation Finance	3

Plus 21 credits selected from among courses with catalog numbers above BUS 300.

DIRECTED ELECTIVES 21 credits

ACCT 211	Principles of Accounting I	3
ACCT 212	Principles of Accounting II	3
CS 152	COBOL & Data Processing I	3
ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3
ECON 210	Economic Statistics I*	3
ECON 211	Economic Statistics II	3

*Either MATH 115 or 150 is strongly recommended as a prerequisite to Economic Statistics I. All students in this major are strongly advised to take mathematics courses or courses in quantitative methods and analysis.

MINOR REQUIREMENTS 18 credits

ACCT 211	Principles of Accounting I	3
BUS 201	Introduction to Management	3
BUS 310	Marketing	3
ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3
LAW 251	Business Law I	3

Courses

Unless otherwise noted, all courses are for 3 credits.

BUS 201 Introduction to Management

Introduces basic principles, policies, problems and successful methods of business organization and management. Emphasizes management's ability to analyze, plan, coordinate and control the varied activities of production, personnel, finance and marketing. Also examines social responsibility and environmental factors affecting business policy and operation.

Prerequisite: ECON 201

BUS 301 Personnel Management

Focuses on how to select and train personnel and how to develop and maintain a positive human-relations environment which contributes to the efficiency of the business operation.

Prerequisites: BUS 201, 310

BUS 302 Materials Management

Surveys the principles of materials management—with emphasis on industrial procurement—its organization and its analytical methods and techniques.

Prerequisites: BUS 201, 301, ECON 201, 202, 210.

BUS 303 Manpower Management

Examines how the dynamics of a changing world affect the composition of the labor force and the economy, ways to develop and use human resources, and how each step in the employment process affects meaningful teamwork. Also, how to adapt employment and training programs to the special needs of individual professional or minority groups.

Prerequisites: BUS 201, 301, ECON 201, 202

BUS 305 Management and the External Environment

A systematic analysis of environments conceived as dynamic systems of interrelated components. Identifies and forecasts trends of special concern to corporate management. Particular emphasis on problems of evaluating national-economic policy, special interest groups, government regulations, consumerism and ecology.

Prerequisites: BUS 201, 301, LAW 231, ECON 201 or 202

BUS 306 Organizational Behavior

Develops the ability to accommodate organization design to present and future planning. Uses theoretical foundations of organization philosophy, concepts and processes to analyze and solve real world situations.

Prerequisites: BUS 201, 301

BUS 307 Organizational Decision-Making

Focuses on the integration and application of both the quantitative and qualitative aspects, concepts and tools of managerial action necessary to accomplish the evaluation and selection of alternatives in the administrative decision-making process.

Prerequisites: BUS 201, 301, ECON 201 or 202, MATH 160, 161

Open to seniors only

BUS 309 International Management

An analysis of international management problems. 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.

Prerequisites: BUS 201, 301, ECON 201, 202

BUS 310 Marketing

Major emphasis on techniques 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.

Prerequisites: BUS 201, ECON 201, 202

BUS 311 Money and Banking (also listed as ECON 310)

An analysis of the nature of money, credit and the banking system of the United States.

Prerequisites: ECON 201, 202

BUS 314 Advertising

The dynamic role played by advertising in the American economy. Examines the function of the corporate advertising department in manufacturing and retailing firms as well as the advertising agency itself.

Prerequisites: ACCT 211, 212, BUS 310

BUS 320 Corporation Finance

A study of the financial principles and practices involved in the reorganization, administration and dissolution of private business corporations.

Prerequisites: ACCT 211, 212, ECON 201, 202

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BUS 340 Labor and Management in the American Economy (also listed as **ECON 340**)

An examination of how labor and management are affected by various theories and institutional approaches and policies, such as public legislation on labor and management relations, collective bargaining, labor unions, inflation and unemployment.

Prerequisites: ECON 201, 202

BUS 342 Retail Marketing: Merchandise Management

The dynamic role played by retailing in the American economy. Analyzes the problems of marketing consumer goods and services and operating various types of stores. Strategies of forecasting, planning, organizing and controlling retail operations are also considered.

Prerequisites: ACCT 211, 212, BUS 310

BUS 403 Capital Budgeting

The conditions under which production takes place and the part managers and workers play in effecting production.

Prerequisites: BUS 310, 320

BUS 410 Taxation I (also listed as **ACCT 410**)

A study of the U.S. Internal Revenue Code with emphasis on income taxation of individuals. Provides practice in the preparation of tax returns and the solution of case problems. Concentrates on the problems of U.S. individual income tax, but taxation of corporations and partnerships is also examined.

Prerequisites: ACCT 211, 212

BUS 411 Taxation II (also listed as **ACCT 411**)

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 are also covered.

Prerequisite: BUS 410

BUS 420 Managerial Economics (also listed as **ECON 410**)

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.

Prerequisites: ECON 201, 202, 210, 211

BUS 430 Product Planning and Management

Emphasizes the importance of product planning and development of new products for the growth and survival of business organizations. Particular emphasis is on product development, the management of new product strategies, and the planning and management of the entire product mix in the multiproduct organization.

Prerequisites: BUS 310, 320

BUS 435 Principles of Investment

A disciplined application of financial analysis to the valuation and selection for investment of corporate securities. While the viewpoint is primarily that of the individual investor, criteria are also applicable within the business firm.

Prerequisites: BUS 310, 320, ECON 211

BUS 450 Small Business Management

A senior-level seminar course in the practical aspects of designing and operating a small business firm. Urban and inner-city minority group and poverty problems are highlighted where appropriate.

BUS 460 Business Strategy and Policy

A case study approach to business decision-making that integrates functional and organizational disciplines. 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.

Prerequisites: Bus 310, 320

BUS 465 Marketing Research

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 is illustrated.

Prerequisites: ACCT 212, BUS 310, 320, ECON 211

BUS 470 An Introduction to Operations Research

The scientific methodology of operations research and logic is applied to the decision-making process. Introduces the concepts of linear and mathematical programming and inventory and statistical decision theories.

Prerequisite: ECON 211

Economics

Professors—G. Dorai, A. Eapen, B. Harolan, C. Leung

Associate Professor—C. Liddicoat (chairman)

Assistant Professor—S. Mahlahla

The economics program provides students with a broad conceptual framework and the analytical tools of economic decision-making. Flexibility is built into the curriculum so that students may seek employment upon completion of their four-year program or, if they prefer, continue on to graduate school for further study. The program provides an excellent background for such areas as law, management and business administration.

MAJOR REQUIREMENTS 30 credits

ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3
ECON 210	Economic Statistics I	3
ECON 211	Economic Statistics II	3
ECON 301	Macroeconomic Theory	3
ECON 302	Microeconomic Theory	3

Plus 12 credits selected from among courses with catalog numbers above ECON 302.

DIRECTED ELECTIVE 3 credits

MATH 115	Intermediate Algebra	3
or		
MATH 150	Applied Calculus I	3

All students majoring in economics are strongly advised to take mathematics courses or courses in quantitative methods and analysis.

MINOR REQUIREMENTS 18 credits

ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3

Plus 12 additional credits in economics by advisement. This minor is strongly recommended for all business administration majors; who, after completing requirements for a business administration major, would need only 6 additional credit hours in economics. This minor is also strongly recommended for mathematics majors, since economics is a field in which mathematics can be extensively applied.

Courses

Unless otherwise noted, all courses are for 3 credits.

ECON 201 Macroeconomic Principles

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 are treated at an introductory level.

ECON 202 Microeconomic Principles

Concentrates on the basic economic principles relevant to resource allocation. Demand and supply analysis is 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.

ECON 210 Economic Statistics I

Descriptive statistics (collection and presentation of data, frequency distributions, measures of central tendency, dispersion and skewness); index numbers' simple correlation and regression; curve fitting; introduction to statistical inference, sampling and probability.

Prerequisite: MATH 115 or 150

ECON 211 Economic Statistics II

Sampling distribution of the sample statistics, probability limits and tests of significance; statistical inference and confidence limits; operating characteristic curves; simple experimental design; applied probability for decision making.

Prerequisite: ECON 210

ECON 230 Economics of the Environment

Examines problems of environmental quality as an economic problem. The role that economic analysis plays in providing both public and private decision-makers with alternative solutions to environmental problems is stressed.

ECON 301 Macroeconomic Theory

A systematic treatment of the factors determining the level of output, income and employment of the economy as a whole.

Prerequisites: ECON 201 and 202

ECON 302 Microeconomic Theory

An analytic treatment of theories and techniques of price determination. Theories of income distribution and general equilibrium are also considered.

Prerequisites: ECON 201 and 202

ECON 310 Money and Banking (also listed as BUS 311)

An analysis of the nature of money, credit and the banking system of the United States.

Prerequisites: ECON 201 and 202

ECON 321 Public Finance

A study of theoretical and empirical aspects of government expenditure and revenue activities. Special emphasis is placed on the impact of government policies on the economy and the relationship of government policies to issues of current interest in American society.

Prerequisites: ECON 201 and 202

ECON 340 Labor and Management in the American Economy (also listed as BUS 340)

An examination of how labor and management are affected by various theories and institutional approaches and policies, such as public legislation on labor and management relations, collective bargaining, labor unions, inflation and unemployment.

Prerequisites: ECON 201 and 202

ECON 360 Theory of Economic Growth and Development

A study of the sources of economic growth and development and the private and public policies which affect this historical trend. Both underdeveloped and developed countries are considered.

Prerequisites: ECON 201 and 202

ECON 370 International Economics

An introduction to the principles and characteristics of international transactions.

Prerequisites: ECON 201 and 202

ECON 380 Economic History of the United States (also listed as HIST 326)

Emphasizes economic elements in the historical growth of the United States from colonial to contemporary times. An analysis is made of the changing role of government, technological innovation, industrial pioneering and competition in the development of the American economy.

ECON 390 Comparative Economic Systems

A study of the actual operations of various economic systems as they seek the optimum use of the human and natural resources available to them. The ideological, technological and organizational features of each system are stressed.

Prerequisites: ECON 201 and 202

ECON 410 Managerial Economics

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.

Prerequisites: ECON 201, 202, 210, 211

ECON 430 Econometrics

The ordinary least squares criterion is scrutinized. The problems of estimating demand, supply, consumption, production and cost functions are treated in depth.

Prerequisites: ECON 201, 202, 210, 211

ECON 499 Independent Study

As approved and to be arranged.

1-3 credits

Department of Administrative and Computer Sciences

Computer Science

Professor—L. Cheo

Associate Professors—E. Hu, L. Presby, F. Sevedio

The computer sciences program consists of a five-track minor, and a three-track bachelor's degree-granting program. The minor, open to all students regardless of discipline, requires students to successfully complete a minimum of 18 credits in the computer sciences area. The degree-granting program consists of three tracks: 1) physical and natural sciences; 2) business, economics and accounting; 3) social and behavioral sciences. Students are required to complete 22 to 25 credits in computer sciences as the core of the program, as well as additional courses in computer sciences and other areas to satisfy particular degree requirements. These programs cover computer hardware systems, as well as computer applications to business, economics, accounting, natural, physical, social and behavioral sciences, education and mathematics.

Computer facilities consist of an in-house Burroughs 1955, a remote job entry (RJE) system, twenty interactive time-sharing (T/S) terminals and thirteen key-punch machines. Apple microprocessors are available for classwork. In addition, for students interested in learning various types of deterministic and probabilistic simulation and problem-solving techniques through an analog device, an EAI Miniac Analog computer system is available. All computing equipment is located in the Coach House Computer Center.

CORE PROGRAM 24 credits

CS 140	Computer Science I	3
CS 240	Computer Science II	3
CS 280	Computer and Assembler Language	3
CS 341	Computer Design	3
CS 342	Programming Language and Data Structures	3
CS 343	Systems Programming	3
CS 362	Elements of Computer Simulation	3
CS 480	Computer Science Seminar	3

Plus required courses for each track:

TRACK I: Physical and Natural Sciences 30 credits

CS 360, 9 credits of 300- and 400-level computer science courses, and 18 credits in mathematics, physics, biology and/or chemistry.

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TRACK II: Business, Economics and Accounting 39 credits

CS 152, 6 credits of 300- and 400-level computer science courses, and 30 credits in accounting, business and/or economics.

TRACK III: Social and Behavioral Sciences 27-29 credits

9 credits of 300- and 400-level computer science courses and 18-20 credits in psychology, social sciences and/or political science.

MINOR REQUIREMENTS 9 credits

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

Plus required courses for each track:

TRACK I: Mathematics and Physics Majors 9 credits

CS 360	Computer Calculus	3
Plus two of the following:		
CS 341	Computer Design	3
CS 342	Programming Language and Data Structures	3
CS 361	Combinatorial Computing	3
CS 362	Elements of Computer Simulation	3
CS 480	Computer Science Seminar	3

TRACK II: Biology, Chemistry, Earth Sciences and Physics Majors 9 credits

CS 362	Elements of Computer Simulation	3
Plus two of the following:		
CS 341	Computer Design	3
CS 342	Programming Language and Data Structures	3
CS 360	Computer Calculus	3
CS 480	Computer Science Seminar	3

TRACK III: Business, Economics and Accounting Majors 9 credits

CS 362	Elements of Computer Simulation	3
Plus two of the following:		
CS 152	COBOL and Data Processing I	3
CS 252	COBOL II	3
CS 341	Computer Design	3
CS 342	Programming Language and Data Structures	3
CS 480	Computer Science Seminar	3

TRACK IV: Psychology and Other Social and Behavioral Science Majors 9 credits

CS 362	Elements of Computer Simulation	3
Plus two of the following:		
CS 270	Computer Statistical Techniques I	3
CS 341	Computer Design	3
CS 342	Programming Language and Data Structures	3
CS 370	Computer Statistical Techniques II	3
CS 480	Computer Science Seminar	3

TRACK V: All Other Majors 9 credits

CS 362	Elements of Computer Simulation	3
Plus two of the following:		
CS 152	COBOL and Data Processing I	3
CS 252	COBOL II	3
CS 341	Computer Design	3
CS 342	Programming Language and Data Structures	3
CS 480	Computer Science Seminar	3

Courses

Unless otherwise noted, all courses are for 3 credits.

CS 130 Introduction to Computers and BASIC

Introduces the basic principles and applications of computing systems, mini-computers in particular. Techniques of computer programming are introduced through BASIC. Students who intend to major or minor in computer science may be waived from this course with permission of a faculty advisor.

CS 140 Computer Science I

Designed to teach students how and why a computer is used. The student learns how to program in the FORTRAN language. Simple applications in the most frequently used mathematical models are included. Prerequisite: CS 130 or permission of the instructor

CS 152 COBOL and Data Processing I

Introduction to the COBOL language with applications to commercial problems. Topics in business information processing, such as payroll and inventory management, are examined. Prerequisite: CS 130 or permission of the instructor

CS 240 Computer Science II

An introductory course on the solution of computational problems. Emphasizes the computer solution of several numerical and non-numerical problems using an algebraic 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. Prerequisite: CS 140

CS 252 COBOL II

Data processing systems and the advanced features of COBOL. Prerequisite: CS 152

CS 270 Computer Statistical Techniques I

An introduction to existing major statistical packages such as DATATEX, BMD, SPSS, SAS, etc., using BATCH card data manipulation process. Some basic JCL concepts used for this purpose are discussed. Prerequisite: Math 130 or equivalent and CS 140

CS 280 Computer and Assembler Language

An introduction to the study of the basic structure and language of machines. Prerequisite: CS 240

CS 330 Linear Programming and Operation Research

Introduces the concept of operations research and mathematical techniques applied to decision-making problems when the inputs are known. Prerequisite: Math 120 or 202 and CS 240

CS 341 Computer Design

An introduction to the internal structure of digital computers. Prerequisite: CS 280

CS 342 Programming Language and Data Structures

An introduction to elements of programming languages and basic concepts of data representation. Prerequisite: CS 280

CS 343 Systems Programming

The problems arising in systems programming. Emphasis on a multi-programming system. Prerequisites: CS 341 and 342

CS 344 Switching Theory

The theoretical principles and mathematical techniques concerned with the logic design of digital systems. Prerequisite: CS 240

CS 360 Computer Calculus

Emphasizes building algorithms for solution of numerical problems, the sensitivity of these algorithms to numerical error, and the efficiency of these algorithms. Prerequisites: CS 240 and MATH 202

CS 361 Combinatorial Computing

The problem of how to carry out computations with discrete mathematical structures. Introduces students to the fundamental concepts and techniques used in solving many combinatorial problems by utilizing computers. Prerequisites: CS 240 and MATH 202

CS 362 Elements of Computer Simulation

Probabilistic simulation models: generation of random numbers, Monte Carlo methods, and elementary queueing theory. Deterministic simulation models: application to physics, economics and biological processes. Other non-numerical problems included are searching and sorting, techniques and information retrieval techniques. Prerequisites: CS 240, some statistics

CS 370 Computer Statistical Techniques II
A follow-up course to CS 270. Topics include data manipulation on statistical programs using on-line, tape and disk devices.
Prerequisite: CS 270

CS 399 Special Topics in Computer Sciences
A course designed to implement new topics on an experimental basis.
Prerequisite: Instructor's permission

CS 420 Compiler Construction
The major techniques used in compiler writing. Topics include formal language theory, lexical and syntactic analysis, code generation and optimization and error diagnostics and recovery.
Prerequisite: CS 342

CS 440 Information Organization and Retrieval
Flow of data, its representation, transmission and storage.
Prerequisite: CS 342

CS 445 Automation
Emphasizes the central concept of effective procedure of the computer-like machines, such as finite-state machine, pushdown automation, register machine and Turing machine.
Prerequisite: CS 344

CS 460 Analogue Hybrid Computing
Techniques for solving mathematical modeling problems, concepts of data sampling and computer function generation, and digital simulation of analogue computers.
Prerequisites: CS 360 and 362

CS 462 System Simulation
Introduction to the principles of simulation and the application of several simulation languages to system studies. Discussion of the techniques applicable to both continuous and discrete systems and an explanation of the probability theory and statistical techniques involved in the construction of valid models and in analyzing results.
Prerequisite: CS 362

CS 465 Computer Simulation II
The formulation and analysis of mathematical models representing probabilistic systems, probability theory, queueing theory, inventory maintenance and reliability problems. Use of characteristics of these systems in decision-making is covered.
Prerequisite: CS 362

CS 480 Computer Science Seminar
Current topics in computer sciences are discussed.
Prerequisite: Instructor's permission

Criminal Justice Administration

Associate Professor—W. Cusack
Assistant Professor—L. Gaydos

The criminal justice administration program offers students a variety of courses, with equal emphasis on behavioral science and scientific approaches in its analysis of organizational behavior and the cause, prevention and control of unlawful behavior. The four-year curriculum leading to a bachelor of science degree in criminal justice administration is specifically designed for students either currently working in the criminal justice system or pre-service students contemplating careers within that system.

Many courses offered by the Department of Criminal Justice Administration are double-tracked so that those students working in jobs that require changing work schedules can be accommodated in either the day or evening session of a given course. Many general education courses—history, business, political science, philosophy, English and African and Afro-American studies—are double-tracked as well.

The Department of Criminal Justice Administration offers courses in corrections, organization and administration, criminology, community relations, investigation, juvenile delinquency, white collar crime, arson investigation, supervision, management, civil law for criminal justice practitioners, patrol administration and a seminar in criminal justice problems. The program also offers an independent study course.

MAJOR REQUIREMENTS 33 credits

CJA 160	Introduction to Law Enforcement	3
CJA 161	Law Enforcement Organization and Administration	3
CJA 203	Community Relations	3
CJA 302	Introduction to Criminology	3
CJA 480	Seminar in Criminal Justice	3
LAW 120	Introduction to Law and Legal Systems	3

Plus 15 additional credits in criminal justice administration by advisement.

Courses

Unless otherwise noted, all courses are for 3 credits.

CJA 160 Introduction to Law Enforcement
Philosophical and historical background of agencies and processes, law enforcement administration and technical problems, crime and the criminal as social and public safety problems.

CJA 161 Law Enforcement Organization and Administration
Introduction to the guidelines provided by organizational theory as they relate to police organizational structure. Discussion of administrative problems, lines of responsibility, coordination among various branches, recruitment career advancement and the selection of police leadership.

CJA 162 Contemporary Corrections
Examines the primary objectives and organizational structure of correction systems. A brief history and overview of the field of corrections as it relates to the reduction and control of crime are given. Stresses current trends focusing on community responsibility. Examines new community-based programs and facilities.

CJA 203 Community Relations
Examines the attitudes and actions of criminal justice 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 criminal justice community relations. Explores ways to stimulate meaningful human relationships and a sense of dialogue. The class setting serves as a laboratory in which a sense of community among students is fostered.

CJA 207 Criminal Justice System
A study of the role and responsibilities of the seven segments within the administration of the justice system: law enforcement, judiciary, corrections, probation, parole, prosecution and defense.

CJA 208 Criminal Investigation
Introduction to investigation procedures, including theory of an investigation, conduct at crime scenes, collection and preservation of physical evidence, methods used in the police science laboratory, fingerprints, ballistics, documents, serology, photography, weapons, related forensic sciences, and elements that constitute crime.

CJA 301 Supervision in Criminal Justice
Considers the supervisory problems within police 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 are included.

CJA 302 Introduction to Criminology
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.

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CJA 303 Juvenile Delinquency

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.

CJA 304 Field Operations—Law Enforcement Agencies

Patrol as the basic function of police operations. Purpose, methods, types and means of police patrol. Analysis of tangibles and intangibles of patrol operation. Existing practices in various police departments of the United States, Europe and the United Kingdom are compared and evaluated critically.

CJA 309 Social Problems in Criminal Justice

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.

CJA 310 Comparative Criminal Justice Systems

A comparative analysis of criminal justice systems in the United States and selected foreign countries. Emphasis on the administration 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 are analyzed.

CJA 403 Community Supervision and Treatment of the Offender

Focuses on an analysis of theories and practices of parole and probation. Is also concerned with the current trend toward diversion of offenders from the criminal justice system and special community programs.

CJA 405 Arson Investigation

A comprehensive analysis of the problems, techniques and procedures of arson investigation. Practical case illustrations are used.

CJA 406 Law Enforcement Management

Analysis of management, the policies and procedures of personnel effectiveness and their specific application to law enforcement, planning, program and performance budgeting, records management, data processing, communications, leadership, decision-making and operations research.

CJA 480 Seminar in Criminal Justice

An analysis of the major problems in criminal justice and the relation of the criminal justice department to other law enforcement and civic agencies. Open only to seniors majoring in criminal justice.

CJA 499 Independent Study

As approved and to be arranged. 1-3 credits.

Public Administration

Professor—J.M. Waiguchu

Associate Professor—R. Grier (chairman)

Instructor—R. Zinke

Public demand for effective and responsive community and public institutions continues to increase. Public agencies and non-profit organizations at all levels—federal, state and local—have begun to look for only the most qualified people to fill positions. Men and women who exhibit clarity of thought, personal integrity and commitment, and a strong desire for distinguished public service are sought. The School of Management's program in non-profit organization and public administration is designed to provide such people with the necessary intellectual and academic training needed to compete for public service positions.

Courses

Unless otherwise noted, all courses are for 3 credits.

PPM 211 Introduction to Public Management

Introduces students of public affairs to the methods and practices of managing public agencies. The course surveys organizational theories and practices including leadership techniques, coordination, planning, supervision, decision making, organizing, controlling and such other internal and external factors which influence public officials, bureaucratic behavior and governmental processes.

PPM 225 Management of State and Local Public Agencies

A study of the management structure, procedures and policies of state and local government and community agencies. Special emphasis on agency and program development and administration including urban issues, service delivery systems and capacity, inter-governmental and agency relations.

Prerequisite: PPM 211. May be taken concurrently.

PPM 230 Introduction to Public Information Systems

The basic concepts and elements of information systems management as applied to the public sector. Topics include: methods of information systems implementation, information processing problems and models, systems analysis. Principles, applications and innovations of systems analysis in the public sector are stressed.

PPM 265 Introduction to Public Policy Studies

A general introduction to public policy-making as it relates to public administration/management. The course covers the various models of public policymaking including the Elite/Mass model, the Group model, the Systems model, the Institutional/Neoinstitutionalist model, the Incrementalist model, the Rationalist model, and the Public Choice model. The role of policy analysis in administrative institutions and processes is discussed.

PPM 270 Public Policy Implementation

The development and implementation of public policies. Topics include: social and urban impact analysis, intergovernmental program management and the role of evaluation research in program implementation. Emphasis on the problematic nature of translating public laws into viable public programs.

Prerequisite: PPM 265

PPM 311 Theory and Methods of Public Management Research

This course examines and contrasts various assumptions, principles and methods employed in and applied to the study and conduct of management of public agencies. Focus is on the theoretical and methodological bases of conceptualizing, initiating, planning, implementing and directing public actions and programs within an organizational and behavioral context. The course emphasizes the ways in which theories of knowledge about public management are translated into practice.

Prerequisites: PPM 211

PPM 365 Program Analysis

Program analysis involves the determination of costs and benefits of alternative program solutions to public problems. This course deals with the fundamental analytical methods and processes of program evaluation, and the use of such tools in the policy making process. The role of program analysis in administrative agencies is also discussed.

Prerequisites: PPM 265, 315

PPM 370 Ethical Issues of Policy Making

An examination of the ethical provisions, principles and obligations under which public officials conduct themselves and their duties. The nature of normative discourse and reasoning is also discussed. The emphasis is on the moral and ethical criteria used in judging, and determining public policies and programs as well as exercising administrative discretion.

Prerequisite: PPM 265

PPM 415 Public Budgeting and Finance

Describes and analyzes all major aspects of public budgeting and finance at all levels of government, including budget preparation, budget documentation, accounting, current and capital budgeting, debt management, public purchasing and control mechanisms of pre- and post-audits.

Prerequisite: PPM 211. Two courses in economics and one course in accounting recommended.

PPM 439 Internship: Management of State, Local and Community Agencies

This course is designed to provide practical work experience in a student's area of specialization in public administration.

PPM 465 Applied Public Policy Research

Students integrate the skills and tools of policy analysis, derived from previous course work. Real world examples are stressed.

Prerequisites: PPM 265, 301, 315

PPM 479 Internship: Public Policy Studies

Students work in their areas of specialization under the direction of experienced public officials.

The School of Science

Alvin F. Shinn, Dean
Office: Science Hall 317

The School of Science offers degree programs in biology, chemistry, environmental studies (under various majors), and mathematics for students wishing to pursue careers in these disciplines, including teaching.

The school offers diverse liberal studies courses for students who are majoring in other schools of the College. The woods, pond, waterfall and undeveloped parts of the campus are used for studies in ecology, biology, geology, and for surveying practice in environmental mapping.

Seminars by prominent scientists, given throughout the year, keep students and faculty abreast of recent research and developments in the sciences. Each department has a number of faculty active in research who regularly provide opportunities for students to engage in research under their supervision. Modern scientific equipment and supplies support both researchers and students.

Pre-Professional Programs

The Pre-Professional Committee (including pre-medical, pre-dental, pre-veterinary, and related fields of biological sciences) includes three members of the biology department, one member of the chemistry department, and the advisor of the Pre-Professional Society.

Students interested in a career in medicine, osteopathy or podiatry should meet with the pre-medical advisor during the first semester of the freshman year. The advisor suggests appropriate courses, explain application procedures and gives students evaluation forms for professors of biology, chemistry and physics. Students should check with the pre-professional advisor at least once each year and confer about grade point average, courses to take and evaluations which have come back from professors.

All students planning to attend professional school must have an interview with the Pre-Professional Committee and provide the committee with a brief resume of curricular and extra-curricular activities. It is suggested that these interviews take place in May or June of the junior year. Students who take professional exams in September or October may wish to have their interview in September. The earlier the interviews and application are completed, the better the chances of admission. The committee will not interview or write letters after October 15.

The Pre-Professional Committee sends out letters to schools designated by the student at the end of the junior year or at the beginning of the senior year. The letter reflects the student's college grade point average, performance in science courses and ability to do well in an interview. The

student is rated in comparison to other students in biology and chemistry over the past five years. This indicates to a professional school the likelihood of a student's success in a program. All students should realize that pre-professional programs are very competitive and students should have alternative plans if they are not accepted.

Pre-Medical Preparation: Prospective medical students should acquaint themselves 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**. They should read each year's issue to make sure that the requirements of the schools to which they plan to apply have not changed and are advised to purchase the publication by mail from the association at 1 DuPont Circle, N.W., Washington, D.C. 20036, at a cost of \$5.

All medical school applicants are required to take the Medical College Admissions Test, 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. Students may obtain MCAT applications from the pre-professional advisor.

Students should take at least 8 credits in each of the following course areas in order to meet the minimum requirements for the majority of medical schools: general biology, general chemistry, calculus, organic chemistry, physics. Strongly recommended: courses in English literature, foreign languages and advanced science.

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 advisor of the Department of Biology.

Pre-Dental Preparation Admission requirements to dental schools are set by the American Dental Association. Minimum requirements are general biology, 8 credits; general chemistry, 8 credits; college mathematics, 8 credits; comparative anatomy, 4 credits; organic chemistry, 8 credits; physics, 8 credits; English, 6 credits. Some dental schools require, and others recommend, additional science courses. Three or four years of college are required for admission to dental school.

Pre-dental students must have their courses approved by the pre-professional advisor of the Department of Biology.

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

Minimum requirements are 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 advisor of the Department of Biology as early as possible.

Honors Program in Biopsychology

The honors program in biopsychology draws on discoveries in such fields as behavioral genetics, neuroanatomy, brain chemistry, neurophysiology, psychopharmacology and many others to unravel the biology of the mind and behavior. The National Science Foundation awarded two grants to support the development of this program. As with all honors programs at WPC, biopsychology is not a major but a distinctive cluster of courses which adds breadth to, and reinforces, students' chosen majors.

Open to majors in psychology, biology, chemistry, sociology and nursing, this program is highly recommended for students planning graduate study—including pre-medical/dental/veterinary/graduate nursing students—and, in general, those students interested in clinical or research careers. As an honors program, biopsychology is designed for highly motivated individuals seeking opportunities both to learn and to demonstrate excellence.

Interested students begin in the freshman year with a set of foundation courses carefully selected to provide a firm basis for the study of more advanced disciplines. Students begin taking the core biopsychology courses in the junior year. The curriculum is enriched with seminars, discussion groups, research opportunities and speaker series. Students and faculty participate together in a closely knit academic community.

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FOUNDATION COURSES 41-46 credits

Biology

BIO 163-164	General Biology I and II	8
or		
BIO 212-213	General Anatomy and Physiology I and II	8

Chemistry

CHEM 160-161	General Chemistry I and II	8
and		
CHEM 308-309	Organic Chemistry I and II	8
or		
CHEM 164-165	College Chemistry and Organic Biochemistry	8

Computer Science

CS 130	Introduction to Computers/BASIC	3
or		
CS 140	Computer Science I	3

Physics

Choose one of the following two-semester courses by advisement:

PHYS 255-256	College Physics I and II	8
or		
PHYS 260-261	General Physics I and II	8

Psychology

PSY 110	General Psychology	3
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Statistics

PSY 202-203	Experimental Psychology I and II	8
or		
MATH 230	Statistics for Science Majors	3

CORE COURSES 14 credits

BIPY 474	Neuroscience	4
BIPY 475	Behavior Genetics	4
	Topical Elective in Biopsychology (one or more)	3
PSY 353	Physiological Psychology	3

MAJOR ELECTIVES 10-12 credits

Elective courses are chosen by advisement.

Recommended liberal studies courses:

PHIL 110	Introduction to Philosophy	3
or		
PHIL 140	Introduction to Inquiry	3
SOC 130	Introduction to Anthropology	3

*Choose from sociobiology, biofeedback, psychopharmacology, biorhythms in physiology and behavior, and special current topics as announced.

Courses

Unless otherwise noted, all courses are for 3 credits.

BIPY 474 Neuroscience

A study of the brain; specifically the integrated roles of the anatomy, chemistry, histology and electrical activity of the central nervous system. The laboratory component focuses on anatomy and techniques for the study of brain functioning. Prerequisites: BIO 163-164 or 212-213 or PSY 353 or permission of the instructor. 4 credits/lecture and laboratory

BIPY 475 Behavior Genetics

An introduction to the concept of gene-environment interaction as a determiner of both animal and human behavior. Exposure to various methods of experimental and correlational types of investigation. Prerequisites: BIO 163-164 or 212-213 or permission of the instructor. 4 credits/lecture and laboratory

BIPY 476 Developmental Biopsychology

Designed to introduce students to the scope and methods of a psychological approach to development. Stresses the phylogenetic and ontogenetic processes influencing individuals, groups, species and phyla, with special emphasis on human groups. Prerequisites: PSY 353 or BIO 163-164 or BIO 212-213 or permission of the instructor.

BIPY 479 Biorhythms in Physiology and Behavior

Focuses on the role of biological rhythms in the adaptive functioning of organisms. Examines yearly, monthly, tidal, daily and sleep/dream cycles; the nature and control of internal clock mechanisms; and the implications of biorhythms for illness and psychopathology. Prerequisites: BIO 163-164 or BIO 212-213 or BIO 214.

BIPY 499 Current Topics in Biopsychology

Analyzes current approaches and research findings in areas of emerging interests. Prerequisite: Permission of the instructor. 4 credits

PSY 353 Physiological Psychology

Explores the interrelationships between the physiology of the nervous system and psychological functions such as perception, consciousness, motivation, emotion, reward, memory and learning. Prerequisites: PSY 110 and BIO 214 or equivalent

PSY 415 Psychopharmacology

Focuses on the major classes of drugs which alter brain and psychological functioning. Examines in depth and compares the effects of these drugs and the mechanisms by which they act. Prerequisites: BIO 163-164 or 212-213 or PSY 353.

Department of Biology

Professors—R. Callahan, R. Capella, L. Emrich, M. Hahn, C.Y. Hu, D. Levine, J. Rosengren, A. Shinn, J. Voos (chairman), D. Weisbrat

Associate Professors—N. Grant, J. Green, S. Hanks, A. Isaacson, O. Newton, M. Sebetich, E. Wallace, J. Werth

Assistant Professors—E. Enslee, R. Everson, J. Walters

The Department of Biology offers a major and a minor in biology and provides a wide scope of biology electives and service courses for students from other disciplines. The major leads to the bachelor of science degree in biology. To meet the needs of modern biology, the department has established a curriculum that provides broad, basic training in the fundamentals of biology as well as a concentration in one of three levels of biological organization.

Interested students may inquire about the honors programs in biopsychology and life science ethics offered jointly with several other departments.

Certification is available for students interested in teaching science on the secondary level. Interested students should follow the certification requirements outlined below.

MAJOR REQUIREMENTS 32-37 credits

BIO 163	General Biology I	4
BIO 164	General Biology II	4
BIO 480	Biology Seminar	1
or		
BIO 499	Independent Study: Research	1

Plus one course from each of the following four tracks:

Cell and Molecular Biology

BIO 205	Cell Biology	4
BIO 320	General Bacteriology	4
BIO 421	Developmental Biology	4
CHEM 327	Biochemistry I	4
BIPY 475	Neuroscience	4

Organismal—Plant

BIO 261	General Botany	4
BIO 303	Plant Anatomy	4
BIO 304	Plant Physiology	4
BIO 352	Economic Botany	3

Organismal—Animal

BIO 219	Lower Invertebrate Zoology	4
BIO 220	Higher Invertebrate Zoology	4
BIO 301	Comparative Animal Physiology	4
BIO 350	Animal Behavior	3
BIO 405	Comparative Vertebrate Anatomy	4

Populational Biology

BIO 306	General Genetics	4
BIO 402	Limnology	4
BIO 403	General Ecology	4
BIO 444	Evolution	3
BIPY 475	Behavior Genetics	4

Plus three additional courses chosen from any track or combination of tracks, by advisement. 9-12

NOTE: In addition to courses listed above, other biology courses may be substituted in the tracks with the permission of the department chairman.

DIRECTED ELECTIVES 30-32

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

Plus one of the following two-semester courses:

PHYS 255-256	College Physics I and II	8
PHYS 260-261	General Physics I and II	8

Plus 6-8 credits in mathematics by advisement. 6-8

MINOR REQUIREMENTS 18-20 credits

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

Plus three additional biology courses, at least one of which must include a laboratory, by advisement.

NOTE: Students who wish to minor in biology are strongly urged to include in their background a basic course in statistics and one year of general chemistry.

CERTIFICATION REQUIREMENTS 44 credits

Students interested in obtaining teacher certification in comprehensive science must complete the following secondary education (K-12) requirements:

PSY 110	General Psychology	3
HSC 120	Current Health Problems	3
ELED 310	Educational Psychology: Adaptations and Interventions in the Classroom	3
SED 340	Exploring the Teaching Field (A pre-student teaching field requirement)	1
SED 302	Discovering Your Teaching Self (K-12)	3
RLA 329	Foundations of Reading	3
RLA 330	Reading Strategies for the Content Areas	3
SED 301	Curriculum and its Implementation	3
SED 331	Implementing Your Teaching Major (K-12)	3
SED 451	Education Lab: Crafts and Strategies in Earth Science (for biology and chemistry majors only)	4
EDUC 403	Culminating Field Experience	8
SED 404	Instructional Seminar for Student Teaching	1

Plus one course from the human relations area:

SED 381	Educational Sociology	3
SED 391	Challenge, Change and Commitment in Education	3
SED 432	Human Adaptations and Alternatives in the School	3
URED 482	The Inner City Child and His Environment	3

Plus one course from the professional preparation area:

LMS 323	Modern Educational Media	3
SED 329	The Competencies of Open Education	3
SED 342	Ecology for Educators	3
SED 380	Insights and Outlooks in Education	3
SED 428	Simulated Laboratory Experience in Secondary Schools	3
SED 430	Teaching Literature to Young Adults: Grades 5-12	3
SED 480	Field Research in Teacher Education	3

NOTE: PSY 110 and HSC 120 may be taken in partial fulfillment of liberal studies requirements.

Courses

Unless otherwise noted, all courses are for 3 credits.

BIO 112-113 General Anatomy and Physiology I and II

A study of the structural and functional relationships of the human body. First semester: Detailed study of the individual organism, cell functions, histology, integumentary, skeletal, muscular, respiratory, and circulatory systems. First-semester laboratory: dissection of the cat.

Second semester: nervous, endocrine, reproductive, digestive, and urinary systems; metabolism, acid-base balance, and water and electrolyte balance. Open to all; required of nursing majors. Not recommended for pre-med, pre-dental, or biology majors. 4 credits each. Lecture and laboratory

BIO 114 Applied Anatomy and Physiology

A study of human anatomy and physiology with emphasis on developing an understanding of the interrelationships of the body systems in maintaining homeostasis in both health and disease. Emphasis on nervous and endocrine control mechanisms and the muscular and respiratory systems.

Required of psychology, speech pathology and special education majors; open to others. Not recommended for pre-med, pre-dental, or biology majors. 4 credits. Lecture and laboratory

BIO 116-117 Basic Anatomy and Physiology I and II

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. First semester: Skeletal, muscular, respiratory, and circulatory systems. Second semester: nervous, digestive, reproductive, urinary, and endocrine systems.

Prerequisite: BIO 210 is prerequisite to BIO 211. Open to all; required of physical education majors. Not recommended for pre-med, pre-dental, or biology majors. 3 credits each. Lecture and laboratory

BIO 120 Human Biology

Accent on man's structure, function, and behavior; genetic makeup and hereditary potential; evolutionary history. Laboratory includes the dissection of the fetal pig as an example of mammalian anatomy, as well as varied exercises in human physiology, genetics and evolution. 4 credits. Lecture and laboratory

BIO 163-164 General Biology I and II

For students intending to major in biology, BIO 163-164 provides a background in biological principles. Similarities and differences between living organisms, both plant and animal, are discussed.

Biology I: Subcellular and cellular structure and function, cellular respiration, photosynthesis, and protein synthesis.

Biology II: The underlying principles of whole organism structure and function; principles of evolution and ecology.

Prerequisite: BIO 163 is a pre- or co-requisite for BIO 164. 4 credits each. Lecture and laboratory

BIO 170 Basic Microbiology

Structure, function, nutrition, etc. of the various groups of microorganisms. Relationship to environment and other organisms and their medical importance are considered, particularly infectious disease and immunity.

Required for nursing majors; open to others; not open to students who have taken BIO 320. Lecture and laboratory

BIO 205 Cell Biology

A study of the physiological and biochemical processes that regulate and maintain cell function. Cellular and subcellular structures are discussed, especially as applicable to cell function.

Prerequisites: BIO 163-164 and 1 year of chemistry. 4 credits. Lecture and laboratory

WILLIAM PATERSON COLLEGE

BIO 219 Lower Invertebrates

The study of all invertebrate groups except arthropods. Morphology, culturing, life cycles, ecology, economic importance. Each student does a detailed study of one minor group. One or two Saturday field trips.

Prerequisites: BIO 163-164
4 credits
Lecture and laboratory

BIO 220 Higher Invertebrates

The study of arthropods in the field and laboratory. Morphology, culturing, life cycles, economic importance and means of control. One Saturday field trip.

Prerequisites: BIO 163-164
4 credits
Lecture and field laboratory

BIO 230 Field Biology

An introduction to plants and animals of New Jersey. Intended to develop ability to recognize biotic groups and increase understanding of the necessity of harmonious relationships among man, plants, and animals.

Not open to majors; recommended for elementary education majors.
4 credits
Lecture and field laboratory

BIO 261 General Botany

An introduction to the biology of the plant kingdom; structural, functional, economical, ecological, and evolutionary aspects of plants.

Prerequisites: BIO 163-164
4 credits
Lecture and laboratory

BIO 301 Comparative Animal Physiology

A comparative approach to the basic physiological processes of animals. Emphasis on the functional modifications animals develop in order to cope with their environment.

Prerequisite: BIO 305
4 credits

BIO 302 Human Genetics

Basic tenets of genetics; includes the organization, function, and regulation of hereditary material with emphasis on human and medical application. Required of all nursing majors; not open to biology majors. Prerequisite: 6 credits of biology; elementary statistics strongly advised
Lecture only—For nursing and allied health majors

BIO 303 Plant Anatomy

A comparative study of the relationship of phylogeny, ontogeny and ecology to the anatomical and morphological variations among vascular plants.

Prerequisite: BIO 261 or permission of the instructor
4 credits
Lecture and laboratory

BIO 304 Plant Physiology

Fundamental principles of plant physiology with emphasis on growth and development of vascular plants, including experimental embryogenesis, seed germination, growth regulators, plant water relations, juvenility, flowering, dormancy, and environmental physiology.

Prerequisite: BIO 261
4 credits
Lecture and laboratory

BIO 306 General Genetics

A study of the organization, function, regulation and transfer of hereditary material in viruses, bacteria, and eukaryotes, including man.

Prerequisites: BIO 163-164
4 credits
Lecture and laboratory

BIO 307 Biotechniques

Specific laboratory skills useful in biological research, industry and teaching.

Prerequisites: BIO 163-164, 1 year of chemistry
4 credits
Lecture and laboratory

BIO 312 Advanced Anatomy and Physiology

An introduction to advanced studies in human physiology. Stress on cardiology, circulation, acid-base balance, water balance and disorders of the nervous system.

Prerequisites: BIO 212-213 or permission of the instructor. For nursing majors.
4 credits
Lecture and laboratory

BIO 320 General Bacteriology

This course is concerned with the structure and function of microorganisms with emphasis on bacteria and viruses. The cultivation of microorganisms, microbial physiology, microbial genetics, microbial ecology, immunology and virology are discussed.

Prerequisites: BIO 163-164, 1 year of chemistry
4 credits
Lecture and laboratory

BIO 350 Animal Behavior

A survey of animal behavior, including physiological aspects and ecological and adaptive implications.

Prerequisites: BIO 163-164 or permission of the instructor
Lecture only

BIO 352 Economic Botany

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.

Prerequisite: BIO 261 or permission of the instructor
Lecture only

BIO 402 Limnology

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. Three all-day field trips included.

Prerequisite: BIO 403 or permission of the instructor
4 credits
Lecture and field laboratory

BIO 403 General Ecology

Basic structural and functional aspects of our ecosystem, including detailed study of the community, population and organismal levels.

Prerequisite: BIO 261 or permission of the instructor
4 credits
Lecture and laboratory

BIO 405 Comparative Vertebrate Anatomy

The phylogenic history of each chordate system, including integument, skeleton, muscles, digestive tract, circulatory, excretory, respiratory, nervous, and reproductive systems. Laboratory includes dissection of representative chordates (lamprey, shark, necturus, cat).

Prerequisites: BIO 163-164
4 credits
Lecture and laboratory

BIO 417 Histology

An introduction to the microscopic anatomy, organization and function of normal mammalian tissues. Direct observation of tissues is included in the laboratory component of the course.

Prerequisites: BIO 112-113 or 163-164
4 credits
Lecture and laboratory

BIO 421 Developmental Biology

A study of vertebrate embryology; includes a brief comparison with the development of the starfish.

4 credits
Lecture and laboratory

BIO 444 Evolution

The history of evolutionary theory, heredity, populations, classification, speciation, adaptation, evidence for organic evolution, vertebrate and human evolution, and the problem of human population.

Prerequisite: two years of biology
Lecture only

BIO 480 Biology Seminar

Restricted to biology majors. Features in-depth study of a selected topic. Each student selects one aspect of the topic, does library research on related literature, and prepares a written report of the findings which are delivered orally to the group as a basis for discussion.

1 credit

BIO 484 Scanning Electron Microscopy

Theory and functioning of the SEM. Each student is required to carry out a project. Prerequisites: BIO 200, junior standing, and written permission of the instructor
4 credits

Lecture and laboratory

BIO 485 Transmission Electron Microscopy

The principles and practice of transmission electron microscopy, including theory, electron optics, specimen preparation, operation of electron microscope, photography, related instruments and techniques. Prerequisites: Junior standing and written permission of the instructor
4 credits

Lecture and laboratory

BIO 497 Readings in Biology

Student studies a particular field of biology under the personal direction of a faculty member. See also courses listed under biopsychology.
1-3 credits

BIO 498 Field Experience in Biology

A supervised educational experience outside of the regular departmental program. Pass/fail course.
1-3 credits

BIO 499 Independent Study

Individual research projects under the direction of a faculty member. May be substituted for BIO 480.
1-3 credits

Department of Chemistry, Physics, and Environmental Science

Chemistry

Professors—S.C. Hyman, C.W. Lee (chairman), A. Merijanjan, H. Sakal, A. Speert

Associate Professors—G. Gerardi, R. McCallum, L.J. Rivala, G. Sharma

B.S. in Chemistry

The chemistry program is designed to provide students with the scientific knowledge and skills necessary to pursue a broad range of professional careers. The program leads to a B.S. and is certified by the American Chemical Society as meeting all the professional standards required for baccalaureate education in chemistry. A student is required to take major courses in the principal branches of chemistry: analytical, biochemistry, inorganic, organic and physical in addition to directed electives in mathematics, physics, computer science, biology and English. With a bachelor's degree in chemistry, a student is prepared to continue his education by enrolling in graduate programs in chemistry or other sciences, professional school programs (medicine, dentistry, osteopathy, podiatry, etc.), engineering, computer science, business administration and law. Entry-level positions in government, teaching and industry, which involve aspects of research, manufacturing, sales and management, are also immediate career options.

B.S. in Chemistry (American Chemical Society Certified)

MAJOR REQUIREMENTS		54 credits
CHEM 160	General Chemistry I	4
CHEM 161	General Chemistry II	4
CHEM 201	Analytical Chemistry	5
CHEM 306	Organic Chemistry I	4
CHEM 307	Organic Chemistry II	5
CHEM 311	Physical Chemistry I	4
CHEM 312	Physical Chemistry II	5
CHEM 320	Inorganic Chemistry	4
CHEM 327	Biochemistry I	4
CHEM 401	Analytical Instrumentation	4
CHEM 426	Organic Spectroscopy	4
	Advanced Chemistry Electives (select two courses)	6
CHEM 480	Seminar in Chemistry	1

DIRECTED ELECTIVES		38 credits
BIO 163	General Biology I	4
BIO 164	General Biology II	4
CS 140	Computer Science	3
ENG 300	Technical Writing	3
GER 110	Basic German I	4
GER 111	Basic German II	4
MATH 160	Calculus I	4
MATH 161	Calculus II	4
PHYS 260	General Physics I	4
PHYS 261	General Physics II	4

ADVANCED CHEMISTRY ELECTIVES

4-6 credits

CHEM 312 is a prerequisite for each of the following. Two courses are required.		
CHEM 321	Advanced Inorganic Chemistry	3
CHEM 403	Physical Chemistry III	3
CHEM 421	Advanced Organic Chemistry	3
CHEM 499	Independent Study	1-3

Course Sequence/ACS Certified Program

FRESHMAN YEAR

First Semester

BIO 163	General Biology I	4
CHEM 160	General Chemistry I	4
ENG 110	Writing Effective Prose	3
MATH 160	Calculus I	4

Second Semester

BIO 164	General Biology II	4
CHEM 161	General Chemistry II	4
MATH 161	Calculus II	4
	Liberal Studies Course	3

SOPHOMORE YEAR

First Semester

CHEM 201	Analytical Chemistry	5
CHEM 306	Organic Chemistry I	4
PHYS 260	General Physics I	4
	Liberal Studies Course	3

Second Semester

CHEM 307	Organic Chemistry II	5
CS 140	Computer Science I	3
PHYS 261	General Physics II	4
	Liberal Studies Course	3

JUNIOR YEAR

First Semester

CHEM 311	Physical Chemistry I	4
CHEM 327	Biochemistry I	4
ENG 300	Technical Writing	3
GER 110	Basic German I	4

Second Semester

CHEM 312	Physical Chemistry II	5
CHEM 320	Inorganic Chemistry	4
	Liberal Studies Course	3
GER 111	Basic German II	4

SENIOR YEAR

First Semester

CHEM 401	Analytical Instrumentation	4
	Advanced Chemistry Elective (see below)	3
	Chemistry and free electives	8

WILLIAM PATERSON COLLEGE

Second Semester

CHEM 426	Organic Spectroscopy	4
CHEM 480	Seminar in Chemistry Chemistry and free electives	1 9

Note: All chemistry-physics courses must be taken in the fall or spring. Liberal studies courses may be taken in pre-session or summer school.

B.S. in Chemistry

MAJOR REQUIREMENTS 43-44 credits

CHEM 160	General Chemistry I	4
CHEM 161	General Chemistry II	4
CHEM 201	Analytical Chemistry	5
CHEM 306	Organic Chemistry I	4
CHEM 307	Organic Chemistry II	5
CHEM 311	Physical Chemistry I	4
CHEM 312	Physical Chemistry II	5
CHEM 320	Inorganic Chemistry	4
CHEM 327	Biochemistry I	4
	Advanced Chemistry Electives*	3-4
CHEM 480	Seminar in Chemistry	1

DIRECTED ELECTIVES 30 credits

BIO 163	General Biology I	4
BIO 164	General Biology II	4
CS 140	Computer Science	3
ENG 300	Technical Writing	3
MATH 160	Calculus I	4
MATH 161	Calculus II	4
PHYS 260	General Physics I	4
PHYS 261	General Physics II	4

*ADVANCED CHEMISTRY ELECTIVE 1-4 credits

Choose one of the following:

CHEM 321	Advanced Inorganic Chemistry	3
CHEM 322	Environmental Chemistry	4
CHEM 328	Biochemistry II	3
CHEM 401	Analytical Instrumentation	4
CHEM 403	Physical Chemistry III	3
CHEM 421	Advanced Organic Chemistry	3
CHEM 423	Chemistry of Natural Products	4
CHEM 426	Organic Spectroscopy	4
CHEM 499	Independent Study	1-3

Course Sequence/B.S. Program

FRESHMAN YEAR

First Semester

BIO 163	General Biology I	4
CHEM 160	General Chemistry I	4
ENG 110	Writing Effective Prose	3
MATH 160	Calculus I	4

Second Semester

BIO 164	General Biology II	4
CHEM 161	General Chemistry II	4
MATH 161	Calculus II	4
	Liberal Studies Course	3

SOPHOMORE YEAR

First Semester

CHEM 201	Analytical Chemistry	5
CHEM 306	Organic Chemistry I	4
PHYS 260	General Physics I	4
	Liberal Studies Course	3

Second Semester

CHEM 307	Organic Chemistry II	5
CS 140	Computer Science I	3
PHYS 261	General Physics II	4
	Liberal Studies Course	3

JUNIOR YEAR

First Semester

CHEM 311	Physical Chemistry I	4
CHEM 327	Biochemistry I	4
ENG 300	Technical Writing	3
	Liberal Studies Course	3

Second Semester

CHEM 312	Physical Chemistry II	5
CHEM 320	Inorganic Chemistry	4
	Liberal Studies Courses	6

SENIOR YEAR

First Semester

	Advanced Chemistry Elective	3-4
	Liberal Studies Course	3
	Chemistry and free electives	9

Second Semester

CHEM 480	Seminar in Chemistry Chemistry and free electives	1 14
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Note: All chemistry-physics courses must be taken in the fall or spring. Liberal studies courses may be taken in pre-session or summer school.

CERTIFICATION REQUIREMENTS 44 credits

Students who are interested in obtaining certification in comprehensive science must complete the sequence on page 93.

CHEMISTRY MINOR 18 credits

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

Plus an additional 10 credits in chemistry by advisement. 10

NOTE: Students choosing a minor in chemistry are strongly urged to elect the following: MATH 160, 161, PHYS 260, and PHYS 261.

Courses

Unless otherwise noted, all courses are for 3 credits.

CHEM 110 Crisis of the Environment

Considers issues, means and ethics of uncontrolled utilization of chemicals. Lecture only.

CHEM 120 Concepts of Chemistry

The concepts and principles of general, organic, and biochemistry. Primarily intended for health science and liberal studies student. Lecture only.

CHEM 159 Introductory Chemistry

An introduction to the concepts, principles and terminology of chemistry. 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 meet the requirements of CHEM 160. Not a liberal studies course. Lecture only.

CHEM 160-161 General Chemistry I and II

The electronic structure of atoms, molecular structure and chemical bonding, the states of matter, solutions, reaction rates and chemical equilibrium, ionic equilibria, thermodynamiccccs. Acid-base, electrochemistry and coordination compounds. Laboratories must be taken concurrently. 4 credits each. Lecture and lab

CHEM 164 College Chemistry

Concepts of atomic and molecular structure and reactivity, rates and equilibria, and organic chemistry. Part of a terminal sequence with CHEM 165. 4 credits. Lecture and lab

CHEM 165 Organic Biochemistry

Introduces concepts of organic chemistry and biochemistry; emphasizes metabolism and its control in the context of physiological chemistry. A terminal course. Prerequisite: CHEM 164. 4 credits. Lecture and lab

CHEM 201 Analytical Chemistry

The theory and methods of quantitative analytical chemistry with emphasis on chemical equilibrium and practical laboratory experience. Prerequisite: CHEM 161. 5 credits. Lecture and lab

CHEM 306-307 Organic Chemistry I and II (for chemistry majors)

CHEM 308-309 Organic Chemistry I and II

(for biology majors)

Studies the chemistry of carbon compounds including preparative methods and reaction mechanisms. Emphasizes structural analysis by physical and spectroscopic methods.

Prerequisite for each: CHEM 161

4 credits each: CHEM 306, 308, 309

5 credits: CHEM 307

Lecture and lab

CHEM 311-312 Physical Chemistry I and II

Chemical thermodynamics, behavior of gases, phase rule, reaction kinetics, electrochemistry, and introductory quantum mechanics.

Prerequisites: CHEM 160, 161, MATH 160, 161, PHYS 260, 261

1-4 credits

11-15 credits.

CHEM 320 Inorganic Chemistry

Systematic study of the elements and their compounds with special reference to their location in the periodic table.

Prerequisite: CHEM 161

4 credits

Lecture and lab

CHEM 321 Advanced Inorganic Chemistry

Coordination chemistry, kinetics and mechanisms of inorganic reactions and organometallic chemistry.

Prerequisite: CHEM 320 or permission of the instructor and CHEM 312

Lecture only

CHEM 322 Environmental Chemistry

Considers the composition and dynamics of the environment, the reactions that take place, and the impact of chemical technology.

Corequisite: CHEM 307 or 309

4 credits

Lecture and lab

CHEM 327 Biochemistry I

Considers the properties of metabolites, macromolecules, and polyelectrolytes, and the metabolic processes occurring in living organisms.

Prerequisite: CHEM 307 or 309

Chemistry and biology majors elective

4 credits

Lecture and lab

CHEM 328 Biochemistry II

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.

Prerequisite: CHEM 327

Lecture only

CHEM 401 Analytical Instrumentation

Advanced applications of the methods of instrumental analysis to specialized problems.

Prerequisites: CHEM 307 or 309 and 312

4 credits

Lecture and lab

CHEM 403 Physical Chemistry III

Provides the theoretical basis for understanding the electronic structure of molecules.

Prerequisite: CHEM 312

Lecture only

CHEM 421 Advanced Organic Chemistry

Advanced study of organic chemistry with deliberate emphasis on reaction mechanisms, principles of electronic theory and its application to an understanding of organic mechanisms.

Prerequisites: CHEM 307 or 309 and CHEM 312

Lecture only

CHEM 423 Chemistry of Natural Products

Major classes of natural products of plant origin and the theory of biogenesis. Methods of identification and structural elucidation of natural products.

Prerequisite: CHEM 307 or 309

4 credits

Lecture and lab

CHEM 426 Organic Spectroscopy

Introduces the theory and application of spectroscopy to the structure determination of organic molecules.

Prerequisites: CHEM 307 or 309 and CHEM 312

4 credits

Lecture and lab

CHEM 480 Seminar

A study of specialized problems in chemistry and an introduction to the chemical literature.

1 credit

CHEM 499 Independent Study

As approved and to be arranged.

1-3 credits

Physics**Professors**—E. Woodward, S.La**Assistant Professors**—J. Bufano

Courses and concentrations prepare students for entry into graduate school or science-oriented careers in industry, research, teaching, environmental or governmental work. Offerings include service courses required by other curricula.

LIBERAL STUDIES DEGREE 49-50 credits WITH A CONCENTRATION IN PHYSICS

CHEM 160	General Chemistry I	4
CHEM 161	General Chemistry II	4
MATH 160	Calculus I	4
MATH 161	Calculus II	4
MATH 201	Calculus III	4
MATH 322	Differential Equations	3
PHYS 260	General Physics I	4
PHYS 261	General Physics II	4
PHYS 300	Mechanics	3
PHYS 302	Electricity and Magnetism	3
PHYS 480	Seminar	1
	Elective in Physics (by advisement)	3-4

Plus two additional courses in chemistry by advisement 8

RECOMMENDED ELECTIVES 22 credits

CS 140	Computer Science I	3
MATH 231	Statistics I for Science Majors	3
PHYS 250	Basic Electronics I	3
PHYS 301	Thermal Physics	3
PHYS 304	Optics	4
PHYS 403	Modern Physics I	3
PHYS 404	Modern Physics II	3

Courses

Unless otherwise noted, all courses are for 3 credits.

PHYS 110 Introduction to Physical Science

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

4 credits

PHYS 165 Energy and Earth's Natural Resources

The energy demand in human development. 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. Proposed and speculative methods of meeting the energy crisis and their environmental impact.

3 hours lecture

WILLIAM PATERSON COLLEGE

PHYS 170 General Astronomy

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 of how thousands of galaxies were scattered at fantastic speeds. Not open to students who have taken any other astronomy course.

2 hours lecture, 2 hours lab

PHYS 222 Solar System

The nature of our earth as a planet. Its seasons and motions made simple by use of the celestial globe; a study is made of conditions on the sun, the moon and the planets. Monthly laboratories (optional) are held after nightfall to view the brighter constellations, the more important nebulae and clusters, and the moon and planets through the telescope. A minimum of mathematics.

2 hours lecture, 2 hours lab

PHYS 250-251 Basic Electronics I and II

The general philosophy of electronics as a "way of life" and its function as a basic tool in our present scientific culture. Fundamentals of electronics including basic components and circuit configurations. Actual circuits are assembled, tested and their behavior explored. A descriptive laboratory course in basic electronic circuits without the use of extensive mathematics.

Prerequisite: PHYS 110 or permission of the instructor

3 credits each

2 hours lecture, 2 hours lab

PHYS 255-256 College Physics I and II

An introductory physics course for students who do not intend to specialize in the physical sciences. Requires no mathematics beyond algebra and geometry as prerequisites. Underlying principles and basic laws of Newtonian mechanics, electromagnetism, and modern physics are explored.

4 credits each

3 hours lecture, 3 hours lab

PHYS 260-261 General Physics I and II

The basic course for physics, chemistry and mathematics majors and a foundation for all advanced work in physics. Topics: 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.

Corequisites: MATH 160, 161

4 credits each

3 hours lecture, 3 hours lab

PHYS 270 Sound and Acoustics

Intended primarily for music majors and liberal arts students interested in music. Shows how the theory of sound is utilized in sound production, reproduction and reception. 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.

Prerequisite: PHYS 110 or permission of the instructor

3 hours lecture/demonstration

PHYS 300 Mechanics

Covers basic concepts in mechanics as required for advanced work in physics. Topics: mathematical formulation of mechanics utilizing vector analysis, particle dynamics, systems of particles, translational and rotational movement of rigid bodies, angular momentum and energy considerations.

Prerequisite: PHYS 261; Corequisite: MATH 319

4 credits

3 hours lecture

PHYS 301 Thermal Physics

Develop the principles of classical thermodynamics from the dynamics of many-body systems following the approach of Gibbs. The consequences of these principles are studied in a variety of situations drawn from physics, chemistry and related fields.

Prerequisite: PHYS 300

3 hours lecture

PHYS 302 Electricity and Magnetism

Basic course covering the fundamental concepts of electricity and magnetism. Topics: 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, introduction to field theory.

Prerequisite: PHYS 300

PHYS 304 Optics

Theoretical and experimental aspects. Topics: 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, nature and origin of polarization.

Prerequisite: PHYS 302

4 credits

3 hours lecture, 3 hours lab

PHYS 333 Stars

A study of the sun as a star in the Milky Way galaxy. Eclipses, multiple stars, variable stars, gaseous nebulae, theories concerning composition, origin and evolution of the universe. A minimum of mathematics.

2 hours lecture

PHYS 400 Electromagnetic Fields and Radiation

Maxwell, Laplace and Poisson equations are developed and applied. Scalar and vector potentials. Boundary value problems. Introduction to radiation theory.

Prerequisite: PHYS 302

3 hours lecture.

PHYS 403 Modern Physics I

Spectroscopic and other representative phenomena that form experimental foundation of modern physics. Topics: 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, elementary theory of nuclear structure and reactions.

Prerequisite: PHYS 300

3 hours lecture

PHYS 404 Modern Physics II

Fundamental principles and applications of quantum mechanics. Topics: derivation of Schrodinger's equation; mathematical properties of wave functions; applications to simple atomic structure, to potential barrier problems, to perturbation theory, to anomalous Zeeman effect, and to band theory of conduction electrons.

Prerequisite: PHYS 403

3 hours lecture

PHYS 410-411 Electronics I and II

An applied course emphasizing the experimental nature of electronics. Topics: DC and AC circuits, voltage and current regulators, special circuits, semi-conductor circuit elements, diodes and transistors, transistor circuitry, negative feedback and applications, oscillators, switching circuitry, wave-form generators.

Prerequisites: PHYS 260, 261

4 credits each

3 hours lecture, 3 hours lab

PHYS 480 Seminar

Emphasis on research, current literature and classroom discussion of new ideas.

Prerequisite: permission of the instructor

1 credit

PHYS 499 Independent Study

As approved and to be arranged

1-3 credits

Environmental Studies

Professor: C. W. Lee, program director
Associate Professor: R. McCallum
Assistant Professor: R.B. Harde

The environmental studies program is an interdisciplinary, comprehensive course of study that presents an understanding of the interrelationships among the scientific, sociological, economic and political aspects of environmental concerns.

Requirements for the major include a first-semester freshman foundations course; a set of three one-year long "core" courses: **Ecosystems, Resources, and Social and Human Interactions**; field experience (an internship with an environmental agency); a land-use course; a junior seminar in which current articles are critically evaluated orally and in writing; senior seminars, featuring a team approach to a practical problem-solving effort; and such major electives as **topographic analysis, pollution measurements, soil science, hydrology and computer applications**. Additionally, the student must fulfill the requirements for a second major field of study.

MAJOR REQUIREMENTS 45 credits

A. Interdisciplinary Courses* 22 credits

ENV 110	Environmental Foundations I (Prerequisite to Core I, II, and III)	3
ENV 010	Environmental Workshop	1
ENV 210	Core IA, Ecological Dynamics	3
ENV 211	Core IB, Ecological Toxicology	3
ENV 230	Core IIA, Resources—Sources, Systems and Trash	3
ENV 231	Core IIB, Resources—Sources, Systems and Trash	3
ENV 240	Core IIIA, Social and Human Interactions	3
ENV 241	Core IIIB, Social and Human Interactions	3

B. Major Electives† 11 credits (minimum)

ENV 120	Physical Geology	4
ENV 150	Meteorology	3
ENV 175	Hydrology	3
ENV 201	Topographic Analysis	4
ENV 330	Community Planning and Design	3
**ENV 370	Soil Science	4
**ENV 390	Pollution Measurements	4
ENV 450	Computer Applications	3

C. Major Required Courses 12 credits

ENV 301	Field Experience	3
ENV 380	Junior Seminar	2
ENV 389	Environmental Factors in Land Use	3
ENV 480	Senior Seminar	2
ENV 481	Senior Seminar	2

*These courses can also be used for liberal studies credit. Core courses can be taken simultaneously in combination with one another. As a year sequence, the student is required to take the A portion before the B portion: e.g., Core IA before Core IB.

**CHEM 160-161, or equivalent, is a prerequisite.

†Must include ENV 370 and/or ENV 390.

Required Second Major

A major in environmental studies is possible only in conjunction with the fulfillment of the requirements of a second major field of study. In addition to pursuing interests in the breadth of interdisciplinary relationships, students also study in depth one of the traditional disciplines contributing to environmental understanding, e.g., biology, sociology, economics, earth science, mathematics etc. Requirements for these second majors are listed in the catalog under their respective departments.

The double major is intended to give students a more complete disciplinary approach to work in the environmental field. Graduates have the knowledge and skills of a traditional academic discipline and the necessary appreciation of other disciplines concerned with understanding environmental problems, thereby making them more competitive in the job market. Student advisement from both the environmental studies program director and the department chairman of the second major is available. Both also guide students in their choices of electives.

Liberal Studies Requirements

Majors must earn a grade of "C" or better in ENG 110 **Writing Effective Prose** by the beginning of the third (junior) year. In addition, majors are required to take a second semester of writing e.g., ENG 300 or ENG 330, and a course in public speaking, eg. COMM 110 **Communication In Action**, to fulfill the program's goal of increasing the student's communicative skills.

All other requirements are according to the College's liberal studies requirements, except that 3-9 credits from the interdisciplinary foundations and core courses may be counted toward fulfilling both the natural science and social science distributions.

Liberal Studies Major

Students interested in several disciplines offered by the School of Science, but not wishing to major in any particular one, may pursue the liberal studies major and earn a bachelor of science degree in liberal studies.

In this option, students, with the assistance of an academic advisor, select courses

totaling 50 credits from at least three of the school's majors, taking no more than 18 credits in any one of them.

Under this liberal studies major, students interested in earth sciences may select environmental studies and earth sciences as the double majors. Since earth sciences is not a major-degree program at WPC, students are given, in addition to environmental studies courses, a concentration of courses designed to prepare them for science-oriented careers in industry, research, teaching and environmental or governmental work, or for entry into graduate school.

MAJOR REQUIREMENTS 50 credits

Earth Sciences 18 credits

ENV 120	Physical Geology	4
ENV 220	Historical Geology	4
Plus at least 10 credits chosen from the following by advisement:		
ENV 175	Hydrology	3
ENV 225	Mineralogy and Petrology	4
ENV 315	Introduction to Oceanography	3
ENV 327	Geomorphology	3
ENV 329	Stratigraphy and Sedimentation	3
ENV 370	Soil Science	4
ENV 420	Structural Geology	4

Directed Electives 32 credits

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

Sample Four-Year Schedule for the Double Major in Environmental Studies

I. FRESHMAN YEAR 30-31 credits

Fall

ENV 110	Environmental Foundations I	4
ENG 110	Writing Effective Prose	3
	Liberal Studies Option	3*
		2*

Spring

ENV 230	Core IIA Resources	3
COMM 110	Comm. in Action	3
	Major Elective	3-4
		3*
		3*

II. SOPHOMORE YEAR 30 credits

Fall

ENV 231	Core IIB: Resources	3
ENV 210	Core IA: Ecological Dynamics	3
ENV 240	Core IIIA: Social and Human Interaction	3*
		3*
		3*

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Spring

ENV 211	Core IB: Ecological Toxicology	3
ENV 241	Core IIIB	3
		3*
		3*

III. JUNIOR YEAR

30 credits

Fall

ENG 300		
or		
ENG 330	Technical or Critical Writing	3
ENG 389	Environmental Factors in Land Use	3
		3*
		3*
		3*

Spring

ENV 301	Field Experience	3
ENV 380	Junior Seminar	2
		4*
		3*
		3*

IV. SENIOR YEAR

30 credits

Fall

ENV 480	Senior Seminar	2
		4*
		3*
		3*
		3*

Spring

ENV 481	Senior Seminar	2
		4*
		3*
		3*
		3*

*Courses in the second major, math or lab science.

Courses

Unless otherwise noted, all courses are for 3 credits.

ENV 110 Environmental Foundations I

An introduction to the subject of environmental concern from the viewpoints of several disciplines of the natural sciences, the social sciences, law and economics. Features the importance of the interrelations among these disciplines, both in the definition of the problems and in the student's understanding of why and in what forms such problems exist.

The biosphere and all of its integral components are explored as intertwining dynamic systems that exchange energy and matter in accordance with the principles of physical sciences.

The following will also be studied: our influence upon the ecosphere, as disturbances (perturbation) or stresses upon these intertwining dynamic systems; social, political and economic ways in which we attempt to deal with the effects of such stress; the philosophical reasons behind our present environmental dilemmas and the solutions to these problems.

4 credits

3 hours lecture and discussion, 2-1/2 hours workshop

ENV 010 Environmental Workshop

A companion workshop course for ENV 110. Designed to provide hands-on experience to typify, amplify and illustrate the general concerns and principles taught in ENV 110. The course has three main modules:

1. **Natural Resources** deals with physical and biological measurements and provides an aesthetic appreciation for the overall ecological principles presented.
 2. **Cultural Resources** involves research methods utilizing both library and non-library (local government) sources.
 3. **Data Presentation** introduces the methodology of tabulation and representation of data in graphical and map form.
- 1 credit

ENV 115 General Geology

For the non-science student. 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 introduce rocks, minerals, fossils, maps and landscape features.

4 credits

2 hours lecture, 2 hours lab

ENV 120 Physical Geology

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. Includes 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.

4 credits

3 hours lecture, 2-1/2 hours lab

ENV 150 Meteorology

Weather changes, the structure and composition of the atmosphere, the sun's effect on weather and climate and the processes within the atmosphere. Air mass movements, fronts, and tropical and extratropical storms. In the laboratory: the instruments used in weather observation, forecasting, and the study of daily weather maps.

2 hours lecture, 2 hours lab

ENV 175 Environmental Hydrology

The hydrologic cycle which includes precipitation, interception, evaporation, water use by plants, soil water and ground water. Emphasis on the effect of humans on the cycle including water supply and use, flooding, sewage treatment, irrigation, and drainage. Techniques for measuring hydrologic events and predictive calculations used to meet water supply and drainage needs.

2 hours lecture, 1 hour lab/field work

ENV 201 Environmental Topographic Analysis

The fundamentals for assessment of the impact of proposed structures and land form modifications on the human environment. Includes: surveying, basic engineering, mathematics, map construction and interpretation, elements of topographic drafting, photogrammetric studies, plans, site plans and field work to prepare the various exhibits essential for environmental analysis.

4 credits

2 credit lecture/2 credit lab and field work

ENV 210, 211 Ecosystems (Environmental Core 1A; 1B)

This sequence covers the basic fundamentals of what constitutes an ecosystem and the application of quantitative measurements in this area. An in-depth approach substantiates how and why problems can exist in our ecosphere and challenges the student's curiosity to evaluate alternative solutions.

Core 1A emphasizes the dynamic ecological principles: energy flow, nutrient cycling, pathways of pollutants and the effects of human interactions. These are used to illustrate the importance of our relationships to the natural environment.

Core 1B acquaints the student with the consequences of chemical stress upon the structure and function of ecosystem components and their interrelationships. Includes some fundamentals of hazard assessment—scientific judgment of the probability of harm resulting from the manufacture, transport and disposal of contaminants.

Prerequisites: ENV 110 and ENV 210 before ENV 211

3 credits each

ENV 220 Historical Geology

The study of the origin and evolution of the earth and life as revealed by the geological record in the rocks. Includes the concepts of plate tectonics 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. Major emphasis on the geological history of North America.

Prerequisite: ENV 120

4 credits

2-1/2 hours lecture, 3 hours lab

ENV 225 Mineralogy and Petrology

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 geologic interpretations that can be made from their occurrence. In the laboratory: The identification of rocks and minerals, particularly those of economic or environmental significance, and the study and classification of specimens collected on field trips.

4 credits

3 hours lecture, 2-1/2 hours lab

ENV 227 The Geology of New Jersey

The geological materials and processes which have formed the land features evident in New Jersey and its environs. Emphasis on field trips and laboratory work. Study of the Palisades sill, the Watchung and the Ramapo Mountains, glacial moraines, and the Appalachian geosyncline.

Prerequisite: ENV 120

2 hours lecture, 2 hours lab

ENV 230-231 Resources (Environmental Core IIA and IIB)

In this sequence, resources are treated as flows of energy and matter from environmental sources, through natural and man-made systems, and back to the heat and waste sinks in the environment.

The fundamental laws of physical science governing these processes are developed and applied to particular cases. A global perspective is emphasized with respect to water and soil resources, as well as to the limiting capacities of air, earth and water to recycle the wastes of both natural systems and industrial societies.

This course uses a quantitative approach to all subjects and makes use of the perspectives and techniques of physics, geology and chemistry to describe and evaluate the world's resources.

Prerequisites: ENV 110; ENV 230 before ENV 231

3 credits each

ENV 240-241 Social and Human Interactions (Environmental Core IIIA and IIIB)

Core IIIA: The variety and complexity of human/environment relationships. Provides students with a basic knowledge of the elements of human cultural systems that interact with the environment, accomplished through presentations of appropriate topics from the disciplines of psychology, law, economics, anthropology and sociology.

Core IIIB: Housing and urban behavior, issues in human demography, various economic factors, the legislative base and cultural resource management. Emphasis on the analysis of specific problems and cases. Students are required to complete a major case-oriented project during the semester.

Prerequisites: ENV 110; ENV 240 before ENV 241

3 credits each

ENV 301 Field Experience

This course places the student in an active working experience with either a professional agency, a business or a municipal body involved in some pertinent work related to the environment. Objectives are to expand the students' backgrounds and their appreciation of the field, give them first-hand experience and introduce them to potential employers or help them identify areas of specialization for graduate study. Students must work a minimum of one full day per week with the agency to fulfill an on-the-job requirement. This requirement can also be fulfilled by a cooperative education placement with the program director's recommendation.

ENV 315 Introduction to Oceanography

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.

Prerequisite: 1 year of science or permission of the instructor

2 hours lecture, 2 hours lab

ENV 327 Geomorphology

The nature, origin, and evolution of landscapes and materials at or near the surface of the earth and the processes which bring about changes. The nature and properties of soils and the role of man and his activities.

Prerequisites: ENV 220, 225 or permission of the instructor

2 hours lecture, 2 hours lab

ENV 329 Stratigraphy and Sedimentation

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. Includes field trips to areas of interest in New Jersey, New York and Pennsylvania.

Prerequisite: ENV 220 or permission of the instructor

2 hours lecture, 2 hours lab

ENV 330 Community Planning and Design

An introduction to the types and processes of community planning, development and redevelopment, and the constituent components of the built environment. The forms and shapes of contemporary human settlement are reviewed, as are the mechanisms of decision-making at various levels of jurisdiction, such as affect community planning and design vis-a-vis the impact on the natural environment.

Objectives: to develop familiarity with the terminology and visual language of community planning and design, enlarge the understanding of the forms and functions of the various kinds of land uses, and develop skills in the inventorying and analysis of data, and how to communicate the latter in graphic terms.

2 hours lecture, 2-1/2 hours studio

ENV 370 Soil Science

The fundamentals of soil science. Topics: soil genesis and classification; its physical and chemical properties; soil microbiology, soil types found in New Jersey, human uses of soils and an overview of historical and current agricultural practices. Laboratory emphasizes hands-on experience, with physical and chemical measurements.

Prerequisite: CHEM 160 or 164

4 credits

2½ hours, lecture and lab

ENV 380 Junior Seminar

Designed to give third-year students a chance to reflect upon their reasoning processes and learn how to critically evaluate a number of topics of major environmental concern. Methods of critical evaluation are taught as a means of investigating the logic and reasoning behind ideas and concepts. Arguments are analyzed for format, logic, justification and persuasiveness. Students have the opportunity to study independently a problem selected in consultation with the instructor. All students are expected to take an active part in the discussions, evaluations and debates.

2 credits

ENV 389 Environmental Factors in Land Use

Introduces the subject of the use and misuse of land, the consequent need for governmental review and regulation and the important role of a Natural Resource Inventory (NRI) in that process.

Surveys the components of an N.R.I. and shows how portions of one are compiled. Final class sessions are devoted to students' oral presentations of their semester projects.

Prerequisite to the senior seminars.
3 hours lecture.

ENV 390 Environmental Pollution Measurement

Presents a practical way to test water quality. Evaluates all of the contributing sources of surface waters and investigates the chemical and biological factors that affect water quality. Theories and techniques of chemical analyses of non-gaseous pollutants, as found in surface waters, rain, snow and sediments.

Students learn to perform multiple water analyses in the field and are expected to evaluate their appropriateness in determining water quality.

Prerequisites: Chemistry CHEM 160-161 or CHEM 164-165
4 credits
2 hours lecture, 2 hours lab

ENV 420 Structural Geology

Structural geology deals with the architecture of the rocks which make up the earth and 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. Students learn through the use of maps and cross sections, aerial photographs, and the Brunton compass and other instruments in the laboratory and on field exercises.

Prerequisites: ENV 225 and PHYS 255-256 or 260-261 or permission of the instructor
4 credits
3 hours lecture, 2-1/2 hours lab

ENV 450 Environmental Computer Applications

The application of computer programming in the systems approach to large-scale planning and coordination projects. Students learn why and how the systems approach is best used in the formulation and implementation of environmental policies.

"BASIC" language is taught, and students are introduced to simple and advanced techniques for plotting curves on the terminals. 2 hours lecture, 1-1/2 hours lab

Prerequisite: A course in computer science

ENV 480-481 Senior Seminar

Student task force groups participate in a common project utilizing the methodologies and skills learned in the classroom. Included are graphic and communicative skills, data collection and evaluation, as well as field and laboratory techniques. Different specialized capabilities via the student's second major are also brought to bear upon the project. An example of such a project is the compilation of a natural resource inventory for a neighboring community.

The subject of the study is selected by the instructor, but the student's role in the team study is jointly determined by both the student and the instructor. Student and instructor maximally seek to simulate the working conditions of a professional consultant team engaged in a practical project. Regular work meetings are held during class time with a formal presentation at the end of the semester.

Prerequisite: ENV 389 and ENV 480 before ENV 481
2 credits each

ENV 499 Independent Study

Independent research under the supervision of a faculty member.
1-3 credits

Summer Studies at the New Jersey Marine Sciences Consortium

WPC holds membership in the consortium, and WPC students may take formal courses for academic credit in marine sciences at Sandy Hook or the Seaville Field Station. These courses are given from June through August and are primarily undergraduate courses for sophomore through senior levels. Independent study in the marine sciences is offered at undergraduate and graduate levels. Course offerings vary somewhat from year to year, but the following are usually repeated: introduction to marine sciences, oceanography, basic scuba (NAUI certification), basic sailing, marine biology, ecology of the estuary (graduate only) and coastal marine geology.

Additionally, series of short courses in sailing and seamanship, ranging from basic sailing through cruising workshop, are offered in cooperation with the Center for Ocean Studies at Gardner's Basin, Atlantic City.

Department of Mathematics

Professors—E. Goldstein, M. Kaplan (chairman), E. Phadia, R. Stevenson, M. Tong
Associate Professors—G. Dixon, B. Levine
Assistant Professors—N. Assimakopoulos, J. Coomes, H. Dehlinger, B. Eastman, S. Hyman, M. Jani

The Department of Mathematics offers courses in principal branches of mathematics which prepare majors for professional careers and serve students in other departments.

The 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. A secondary school certification program is available.

Generally, a mathematics major takes MATH 160 and MATH 161 in the freshman year. Four years of high school preparatory mathematics, including trigonometry through inverse functions, is a prerequisite for MATH 160. Students not meeting this requirement, but who have three years of high school mathematics including a second year of algebra, should take MATH 116. 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, psychology and statistics.

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, have access to computer facilities for modern computation and research in applied sciences.

MAJOR REQUIREMENTS		33 credits
MATH 160	Calculus I	4
MATH 161	Calculus II	4
MATH 200	Logic and Discrete Mathematics	3
MATH 201	Calculus III	4
MATH 202	Linear Algebra	3
MATH 301	Modern Algebra	3
MATH 302	Advanced Calculus I	3
Plus nine additional credits from among the following:		
MATH 232	Statistical Computing	3
MATH 303	Advanced Calculus II	3
MATH 322	Differential Equations	3
MATH 323	Foundations of Geometry	3
MATH 324	Probability	3
MATH 325	Topics from Applied Mathematics	3
MATH 361	Combinatorial Analysis	
MATH 380	Mathematical Models and Applications	3
MATH 399	Selected Topics	3-4
MATH 401	Applied Algebra	3
MATH 410	Life Contingencies	3

MATH 421	Mathematical Statistics	3
MATH 422	Complex Analysis	3
MATH 423	Real Analysis	3
MATH 424	Introduction to Numerical Analysis	3
MATH 425	Introduction to Topology	3
MATH 430	Probabilistic Modeling	3
MATH 499	Independent Study	1-3

CERTIFICATION REQUIREMENTS 46 credits

Students interested in obtaining teacher certification in mathematics must complete the following academic content requirements and the series listed on page 37:

MATH 323	Foundations of Geometry	3
MATH 324	Probability	3

MINOR REQUIREMENTS 20-21 credits

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

Plus three additional courses from those listed above under the mathematics major. At least two of the courses must be at the 300-level or higher.

MINOR REQUIREMENTS 18-20 credits (For Students Majoring in Business, Economics, Biology, Psychology)

MATH 120	Finite Math	3
or		
MATH 202	Linear Algebra	3

Plus one of the following two groups of courses:

MATH 130	Elementary Statistics I	3
and		
MATH 150	Applied Calculus I	3
MATH 160	Calculus I	4
and		
MATH 161	Calculus II	4

Plus nine credits of mathematics electives chosen from the following, or others by advisement.

ELECTIVES 12 credits

MATH 250	Applied Calculus II	3
MATH 218	Mathematics of Finance	3
MATH 232	Statistical Computing	3
MATH 380	Mathematical Models and Applications	3

Statistics Minor

Offered in response to the demand for professionals trained in various areas of statistics such as biostatistics, quality control, operations research, economic forecasting, opinion polls and marketing analysis. This minor trains students to be proficient in statistical techniques useful in their chosen professions.

MINOR REQUIREMENTS 18 credits

For a Non-Mathematics Major

MATH 120	Finite Math	3
or		
MATH 202	Linear Algebra	3
MATH 150	Applied Calculus I	3
MATH 230	Statistics I	3
MATH 332	Statistical Computing	3
MATH 324	Probability	3
or		
MATH 430	Probabilistic Models	3
MATH 421	Mathematical Statistics	3

For a Mathematics Major

MATH 230	Statistics I	3
MATH 324	Probability	3
MATH 332	Statistical Computing	3
MATH 399	Topics in Applied Statistics	3
MATH 421	Mathematical Statistics	3

Plus one of the following:

Any 100-level computer science course	3	
BUS 470	An Introduction to Operations Research	3
ECON 211	Economic Statistics II	3
MATH 410	Life Contingencies	3

Note: These courses cannot be used for both a math major and statistics minor.

Courses

Unless otherwise noted, all courses are for 3 credits.

MATH 101 College Arithmetic

Arithmetic operations with whole numbers, fractions, decimals, percents, introduction to exponents, and applications using consumer word problems.

MATH 105 Preparatory Algebra

Algebra equivalent to high school algebra I. Topics: simple equations, fractional equations, exponents, quadratic equations, and applications using word problems.

MATH 110 Contemporary Mathematics

Provides the mathematical understanding generally expected of an educated adult. Topics: elementary logic and set theory, mathematical systems, and either matrix theory or an introduction to computers (at the discretion of the instructor).

MATH 115 Intermediate Algebra

A continuation of the study of algebra. Serves as a preparatory course for the pre-calculus student. Topics: the real number system; algebraic operations; factoring; exponents, radicals; inequalities; solutions of linear equations; systems of linear equations. Should not be taken by students who have successfully completed a second year of high school algebra.

MATH 116 Precalculus

Relations and functions: linear, polynomial, rational, exponential, logarithmic, and trigonometric; trigonometric equations, complex numbers and roots of polynomials. Prerequisite: three years of college preparatory mathematics or equivalent

MATH 120 Finite Math (for social, behavioral, and life sciences)

An introduction to topics from linear algebra and probability theory with emphasis on applications. Topics: elementary set theory, probability, matrices, systems of linear equations, linear programming, and game theory.

MATH 130 Elementary Statistics I

The development of statistical concepts, with applications to various disciplines. 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

A follow-up to MATH 130. Expands 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.

MATH 150 Applied Calculus I (for biology, business, economics, psychology, social science)

The essential ideas of the calculus: functions, limits, continuity, differentiation, integration, elementary differential equations. Applications stressed. A knowledge of high school algebra is required; trigonometry is not required. May be followed by MATH 161 or 250 to complete one year of calculus.

MATH 160 Calculus I

Functions and operations on functions; limit and continuity of functions, derivatives, differentiation of algebraic functions and applications, differentials, and antiderivatives. Prerequisite: four years of college preparatory mathematics or equivalent. 4 credits

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MATH 161 Calculus II

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. Prerequisite: MATH 150 or 160
4 credits

MATH 200 Logic and Discrete Mathematics

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 204 Calculus III

A continuation of Calculus II. Topics: 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. Prerequisite: MATH 161
4 credits

MATH 202 Linear Algebra

Vector spaces, linear transformations, matrices, determinants, systems of equations, inner product spaces. Prerequisite: MATH 161

MATH 218 Mathematics of Finance and the Theory of Interest

The mathematics used in finance. Topics: simple interest, equations of equivalence, annuities and their applications.

MATH 230 Statistics I

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; non-parametric methods; analysis of variance.

MATH 232 Statistical Computing

Students solve statistical problems on the computer with the help of statistical packages, such as BMD, SPSS, SAS, DATATEXT, etc. Prerequisite: MATH 131 or 230

MATH 240 Seminar: Actuarial Examination I

Designed to prepare students for the first actuarial examination. Problems from past examinations are discussed. Includes an in-depth discussion of problems connected with limits. Prerequisites: MATH 160, 161, 201

MATH 250 Applied Calculus II

Elementary differential equations, differentials, applications of integration to probability and statistics, functions of several variables and optimization. Lagrange multipliers. For students in business, economics, biology, and psychology. Prerequisite: MATH 150 or 161

MATH 301 Modern Algebra

An introduction to groups, isomorphisms, rings, integral domains, and fields. Prerequisite: MATH 200

MATH 302 Advanced Calculus I

Some basic theorems: nested interval, Bolzano-Weierstrass, Heine Borel. The limit, continuity, uniform continuity, supremum and infimum of sets, sequences, Cauchy convergence criterion, uniform convergence and infinite series. Prerequisites: MATH 200 and 201

MATH 303 Advanced Calculus II

Reimann-Stieltjes integral, fundamental theorem of integral calculus, continuity and differentiation in \mathbb{R}^n , implicit function theorem, topology of the real line and selected topics. Prerequisite: MATH 302

MATH 322 Differential Equations

A study of the methods of solution and applications of ordinary differential equations. Topics: first 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. Prerequisite: MATH 161

MATH 323 Foundations of Geometry

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

Probability axioms, combinatorial analysis, discrete and continuous sample spaces, random variables, mathematical expectation, probability functions, densities, distribution functions and special distributions. Prerequisite: MATH 150 or 161

MATH 325 Topics from Applied Mathematics

Topics selected from various branches of applied mathematics. The mathematical principles and theories involved are applied to problems in the physical sciences, mathematics, biological sciences, and business. Prerequisite: MATH 322

MATH 361 Combinatorial Analysis

Problems in combinatorics, pigeonhole principle, generating permutations and combinations; unimodal property of binomial coefficients, inclusion-exclusion principle; recurrence relations, generating functions, combinatorial designs, practical problems in the theory of graphs, 5-color theorem. Prerequisite: two semesters of calculus

MATH 380 Mathematical Models and Applications

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

Topics not presently offered in other courses. Content changes each semester. 3-4 credits

MATH 401 Applied Algebra

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 410 Life Contingencies

Measurement of mortality; life annuities; life insurance; cash refund annuities; multiple life functions; joint life probabilities; multiple increment functions; special pension topics. Prerequisites: MATH 218, 230, 324

MATH 421 Mathematical Statistics

Distribution theory, random sampling, point and interval estimation, maximum likelihood estimation, hypothesis testing and linear models. Prerequisite: MATH 324

MATH 422 Complex Analysis

Elements of complex analysis. Topics: complex numbers, analytic functions, Cauchy integral theorem, Cauchy integral formula, power series and conformal mapping.

The School of Social Science

William F. Small, Acting Dean
Office: Science Complex 351

The School of Social Science offers undergraduate degree programs in sociology/anthropology, geography, political science and psychology for students interested in professional careers in these disciplines, including teaching. The bachelor-of-arts-degree-granting programs of the school also prepare students for graduate study in the social sciences.

Honors programs in policy analysis and biopsychology are available to highly motivated students who seek additional academic challenges.

Both students and faculty have the opportunity to pursue individual interests through special seminars, colloquia, conferences and lectures, and by contributing to intracollegiate publications issued under the auspices of the school and the College. Pre-law advisement is offered in conjunction with the Schools of Humanities and Management.

Liberal Studies Major

Students interested in several disciplines offered by the School of Social Science, but who do not wish to major in any one of them, may pursue a liberal studies major in the school. Under this program, with the assistance of an academic advisor, students select a total of 48 credits from at least three of the school's majors, taking no more than 18 credits in any one of them.

Students who successfully complete this major earn a bachelor's degree in liberal studies: School of Social Science.

Honors Program in Biopsychology

The honors program in biopsychology draws on discoveries in such fields as behavior, genetics, neuroanatomy, brain chemistry, neurophysiology, psychopharmacology and many others to unravel the biology of the mind and behavior. The National Science Foundation awarded two grants to support the development of this program. As with all honors programs at WPC, biopsychology is not a major but a distinctive cluster of courses which adds breadth to, and reinforces, students' chosen majors.

Open to majors in psychology, biology, chemistry, sociology and nursing, this program is highly recommended for students planning graduate study—including pre-medical/dental/veterinary/graduate nursing students—and, in general, those students interested in clinical or research careers. As an honors program, biopsychology is designed for highly motivated individuals seeking opportunities both to learn and to demonstrate excellence.

Interested students begin in the freshman year with a set of foundation courses carefully selected to provide a firm basis for the study of more advanced disciplines. Students begin taking the core biopsychology courses in the junior year. The curriculum is enriched with seminars, discussion groups, research opportunities and speaker series. Students and faculty participate together in a closely knit academic community.

FOUNDATION COURSES 41-46 credits

Psychology
PSY 110 General Psychology 3

Biology
BIO 163-164 General Biology I and II 8
or
BIO 212-213 General Anatomy and Physiology I and II 8

Chemistry
CHEM 160-161 General Chemistry I and II 8
and
CHEM 308-309 Organic Chemistry I and II 8
or
CHEM 164-165 College Chemistry and Organic Biochemistry 8

Physics
Choose one of the following two-semester courses by advisement:
PHYS 255-256 College Physics I and II 8
or
PHYS 260-261 General Physics I and II 8

Computer Science
CS 130 Introduction to Computers/BASIC 3
or
CS 140 Computer Science I 3

Statistics
PSY 202-203 Experimental Psychology I and II 8
or
MATH 230 Statistics for Science Majors 3

CORE COURSES 14 credits

BIPY 474 Neuroscience 4
BIPY 475 Behavior Genetics 4
Topical Elective In Biopsychology (one or more) 3
PSY 353 Physiological Psychology 3

MAJOR ELECTIVES 10-12 credits

Elective courses are chosen by advisement. Recommended general education courses:
SOC 130 Introduction to Anthropology 3
PHIL 110 Introduction to Philosophy 3
or
PHIL 140 Introduction to Inquiry 3

*Choose from sociobiology, biofeedback, psychopharmacology, biorhythms in physiology and behavior, and special current topics as announced.

Courses

Unless otherwise noted, all courses are for 3 credits.

BIPY 474 Neuroscience

A study of the brain; specifically the integrated roles of the anatomy, chemistry, histology and electrical activity of the central nervous system. The laboratory component focuses on anatomy and techniques for the study of brain functioning. Prerequisites: BIO 163-164 or 212-213 or PSY 353 or permission of the instructor. 4 credits/lecture and laboratory

BIPY 475 Behavior Genetics

An introduction to the concept of gene-environment interaction as a determiner of both animal and human behavior. Exposure to various methods of experimental and correlational types of investigation. Prerequisites: BIO 163-164 or 212-213 or permission of the instructor. 4 credits/lecture and laboratory

BIPY 476 Developmental Biopsychology

Designed to introduce students to the scope and methods of a psychological approach to development. Stresses the phylogenetic and ontogenetic processes influencing individuals, groups, species and phyla, with special emphasis on human groups. Prerequisites: PSY 353 or BIO 163-164 or BIO 212-213 or permission of the instructor.

BIPY 479 Biorhythms in Physiology and Behavior

Focuses on the role of biological rhythms in the adaptive functioning of organisms. Examines yearly, monthly, tidal, daily and sleep/dream cycles; the nature and control of internal clock mechanisms; and the implications of biorhythms for illness and psychopathology. Prerequisites: BIO 163-164 or BIO 212-213 or BIO 214.

BIPY 499 Current Topics in Biopsychology

Analyzes current approaches and research findings in areas of emerging interests. Prerequisite: Permission of the instructor. 4 credits

PSY 353 Physiological Psychology

Explores the interrelationships between the physiology of the nervous system and psychological functions such as perception, consciousness, motivation, emotion, reward, memory and learning. Prerequisites: PSY 110 and BIO 214 or equivalent.

PSY 415 Psychopharmacology

Focuses on the major classes of drugs which alter brain and psychological functioning. Examines in depth and compares the effects of these drugs and the mechanisms by which they act. Prerequisites: BIO 163-164 or 212-213 or PSY 353.

Honors Program in Policy Analysis

The honors program in policy analysis is an interdisciplinary program designed to provide students with applied training in the social sciences. The field involves the application of available knowledge in the various areas of the social sciences—psychology, sociology, political science, economics, anthropology and geography—to the formation, implementation and evaluation of policy at federal, state and local government levels, and within corporations. Government expansion in areas such as social services for children and the aged and in environmental protection has resulted in an ever expanding need for people trained in the social sciences as well as in policy analysis. Businesses are, increasingly, socially responsible, and policy analysis students can aid departments of consumer and public affairs. It is expected that students enrolled in the policy analysis honors program will acquire a competitive edge in the job market after graduation and in the pursuit of a graduate degree.

The program is open to all majors in psychology, sociology, anthropology, geography, political science and economics, but is designed particularly for highly motivated students who wish to explore more specific areas and topics in depth. The program provides breadth and depth to the major the student has chosen. Students in the program take four courses specifically designed for the policy analysis honors program and also participate in an on-the-job internship. Supporting courses in social science areas other than the major complete the program. Students are advised to apply as early in their college careers as possible.

FOUNDATION COURSES		12 credits
PAHP 200	Basic Issues and Cases in Policy Analysis	3
PAHP 300	Policy Formulation and Implementation	3
PAHP 350	Policy Evaluation	3
PAHP 400	Seminar and Internship	3

DIRECTED ELECTIVES		15 credits
ECON 202	Microeconomic Principles	3
GEO 130	Human Ecology	3
POL 120	American Government and Politics	3
PSY 110	General Psychology	3
SOC 110	Principles of Sociology	3

Courses

Unless otherwise noted, all courses are for 3 credits.

PAHP 200 Basic Issues and Cases in Policy Analysis

The basic introductory course in the policy analysis honors program. An analysis of some of the major case studies around public issues, and how they are resolved within public and private institutions.

PAHP 300 Policy Formulation and Implementation

Focuses on problem-solving methods for such critical issues as energy, defense, social security and medical benefits, among others.

PAHP 350 Policy Evaluation

Techniques for analyzing and evaluating the appropriateness, impact and efficiency of social and governmental interventions into society's problems.

PAHP 400 Seminar and Internship in Policy Analysis

Department of Political Science

Professors—S. Kyriakides, L. Rosenberg, M. Weinstein (chairman)

Associate Professors—M. Chadda, G. Gregoriou, C. Sheffield, L. Wolf

Assistant Professor—S. Shalom

The political science curriculum is designed to give students an understanding of the political aspects of society, to train them in the analysis of political problems, and to provide insights into the relation of the individual to government, and of governments to one another. Students planning to study law will find the political science major most useful.

After taking 15 credits of required major courses, students elect other courses to meet particular personal and career interests such as comparative politics, political theory, international relations, women's studies, American institutions and political behavior.

A field-study or internship program in politics affords interested students the opportunity to apply and enhance their training. Upon satisfactory completion of basic courses, students are placed in governmental agencies (e.g., legislative offices, political parties and interest groups, criminal court systems, etc.). Prior application is necessary, and academic credit is granted upon the successful completion of the internship.

MAJOR REQUIREMENTS 30 credits

POL 120	American Government and Politics	3
POL 200	Classical and Medieval Political Theory	3
or		
POL 201	Early Modern Political Theory*	3
POL 230	Comparative Politics: Development and Modernization	3
POL 240	International Relations	3
POL 480	Seminar in Political Science (open to juniors and seniors; different seminars are offered each semester)	3

Plus 15 credits of additional political science electives.†

*Another political theory course may be substituted with the permission of the department.

†All political science majors are urged to take POL 261: Research Methods in Political Science.

Note: Majors in political science are encouraged to select courses in such related areas as economics and business, sociology/anthropology/geography, philosophy, history, African and Afro-American studies, and psychology.

MINOR REQUIREMENTS 18 credits

POL 110	Introduction to Politics	3
POL 120	American Government and Politics	3

Plus 12 credits of additional political science electives by advisement.

CERTIFICATION REQUIREMENTS 61 credits

Students interested in obtaining teacher certification in social studies must complete the requirements listed on page 112 of this catalog.

Courses

Unless otherwise noted, all courses are for 3 credits.

POL 110 Introduction to Politics

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 obligation—are examined in their philosophical and practical socio-economic setting. Attention is also given to recent and contemporary crises.

POL 120 American Government and Politics

Analysis of the structure and function of basic institutions of American government. The cultural setting, constitutional foundations and policy-making process are examined in detail.

POL 200 Classical and Medieval Political Theory

Analyzes, in depth, the political ideas of important classical and medieval philosophers and schools of thought. 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

The development of political theory from the inception of the modern state. Emphasis is on 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 are given particular attention and placed in historical perspective.

POL 210 Politics and Sex

A study of the implications for American political institutions of the changes in traditional roles of both men and women.

POL 220 Political Economy of the United States

Emphasizes the inter-relationship of politics and economics, and traces their influence on many of the major issues of our times.

POL 221 State and Local Government

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

An examination of the responsibilities and powers of the legislative and executive branches of government regarding environmental problems, their solutions and enforcement. Emphasis on ways in which supportive and non-supportive public opinion and interest groups influence government and environmental policy.

POL 224 Political Parties

A study of the organization and operation of political parties in the United States. Formal structure, the role of ideology, voting behavior and the influence of pressure groups on political parties are examined.

POL 230 Comparative Politics: Development and Modernization

An introduction to the field of comparative politics. Emphasizes a critical analysis of the principal approaches and models currently employed by political science 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

A comparative analysis of selected transitional political systems in Latin America, Africa and Asia. General problems arising during the transition from traditional societies to modern industrial states are examined to describe typical patterns of political change.

POL 240 International Relations

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.

POL 241 War and Peace

The origins of war and the quest for peace. The economic and psychological drives behind wars, weapons, systems and international "security" through armaments are analyzed.

POL 254 Urban and Suburban Politics

A theoretical and empirical analysis of the distribution of political power in both central cities and suburban areas.

POL 261 Research Methods in Political Science

Designed to enable students to formulate and operationalize hypotheses and to bring data to bear in analyzing these hypotheses. Techniques covered include survey research, analysis of existing sources of data, content analysis and simulations.

POL 262 Data Analysis for Political Science

Covers some elementary statistical methods appropriate for the kinds of data collected by political scientists, and provides an introduction to the computer analysis of such data.

POL 300 Politics and Labor

A variety of philosophical, ideological and historical-institutional arrangements related to labor are explored. Emphasis on the origins and development of trade unionism and class consciousness; relations between capital and labor; old and new working class; role of labor in competitive and monopoly capitalism; technology and labor; job satisfaction and alienation under capitalism and socialism.

POL 303 American Political Theory

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 environment.

POL 310 Political Socialization

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. Prerequisites: POL 110, 120 or permission of the instructor

POL 320 Politics of Poverty

An 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.

POL 322 The American Presidency

A study of the origins and evolution of the presidency. The various roles of the president are analyzed and attention is given to the growing pains of and the resulting challenges to the modern presidency. Prerequisite: POL 120

POL 324 Constitutional Law: The Judicial Process

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. Prerequisite: POL 120

POL 326 Constitutional Law: Civil Liberties and Civil Rights

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. Prerequisite: POL 120

POL 332 European Political Systems

A systematic and comparative study of the political systems of Western Europe and the Soviet Union.

POL 334 Communist Political Systems

A comparative analysis of Communist political systems in theory and practice.

POL 335 Politics of the Soviet Union

Soviet political systems 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.

POL 337 Politics of Latin America

An examination of the nature of Ibero-American politics and the reality of current political institutions and movements in this Third World area.

Prerequisite: At least one previous course in political science

POL 338 Caribbean Political Systems

A survey of political development in the varied societies of the Caribbean. Cuba, Haiti, the Dominican Republic, other former British colonies, the French and Dutch islands and Central America are covered. Colonialism, trade relations and cultural forces are also dealt with to enhance understanding of trends in the region.

POL 341 Multinational Corporations and International Labor

Analyzes the political implications—both in the host and home countries—of transnational corporations. Examines the impact on development, labor policies and income distribution.

POL 342 International Political Economy

Analyzes of global issues—such as the quest for new international order, world trade dilemmas, economic relations between rich and poor states and their political implications—from a political-economic perspective.

Prerequisite: POL 240

POL 345 United States Foreign Policy

An analysis of the theoretical foundations of foreign policy and the formulation of United States foreign policy. Includes the problems of decision-making, major issues and problems of United States foreign policy in the contemporary world.

POL 354 Urban Policies and Problems

An intensive consideration of the formation and implementation of selected urban policies and programs. Field work on a specific topic is encouraged.

POL 356 Women in Comparative Politics

Investigates and compares women's concerns on an international basis.

Prerequisite: POL 210 or HSA 300

POL 402 Marx and the Marxists

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.

Prerequisite: POL 110, or a political theory course, or permission of the instructor

POL 403 Capitalism and Socialism

Nineteenth-century origins of socialist theory are analyzed, but emphasis is on twentieth-century schools of socialist theory and practice—Marxism-Leninism, Trotskyism, Maoism, African socialism, anarcho-communism, women's liberation and the new left.

Prerequisite: POL 110, or a political theory course, or permission of the instructor

POL 441 International Law

Study of international law via the case method. Examines the power realities beneath international law. Also analyzes the origins, development and function of the United Nations.

Prerequisite: POL 240 or permission of the instructor

POL 455 Internship in Politics

Designed primarily for students interested in practical aspects of politics and government. Students work from 8 to 40 hours a week under the guidance of experienced public officials. Field placements are made in management areas such as personnel, legislative planning, campaigning, or public service activities. Periodic conferences and a monthly seminar round out the program.

POL 480 Seminar in Political Science

A critical analysis of literature in the field. At least one seminar is offered each semester. Topics vary according to instructors' and students' interests.

Open only to junior and senior majors in political science.

POL 490 Senior-Graduate Seminar in Political Theory

Analyzes the literature in political theory. Topics vary according to student interests and faculty speciality.

POL 499 Independent Study

As approved and to be arranged.
1-6 credits

Department of Psychology

Professors—R. Nemoff, B. Silverstein (chairman), D. Sugarman, D. Vardiman, R. White
Associate Professors—J. Green, D. Grey, T. Haver, R. Krate, G. Leventhal, A. Montare, D. Skillin

Assistant Professors—S. Boone, A. DeLisi, T. Dresner, B. Pakizegi, P. Selkow, D. Trueman, S. Zenker

Students who elect psychology courses explore in depth current theories and research in psychology and seek to understand both their historical development and their relationship to other academic disciplines.

A wide range of courses is offered in each of five major areas—development, social psychology, information processing, physiological psychology and clinical psychology—which not only gives the student a broad background in the field but allows him to specialize in one or more particular areas of interest.

Courses prepare students to understand and use the tools of psychology, including experimental research methods. Students gain experience both in reading and critically evaluating the work of others and in pursuing their own projects. Students are encouraged to participate in faculty-directed research in such widely divergent areas as perception, aggression, infancy, sex roles and biofeedback.

These experiences, as well as the opportunity to participate in independent study, field placements and seminars, provide a well-rounded program for students who wish to pursue graduate study in psychology or in related areas.

MAJOR REQUIREMENTS 36-40 credits

A. Required Core

PSY 110	General Psychology	3
PSY 202-203	Experimental Psychology I and II	8
PSY 230	History and Systems of Psychology	3
PSY 480	Seminar	3

B. Track Courses

One course is selected from each of five tracks listed below. The purpose of the track course distribution is to provide breadth in the curriculum.

C. Two additional courses from any of the five tracks; or, one course plus independent study. Courses can be from a single track to provide the opportunity for depth.

DIRECTED ELECTIVES 13 credits

BIO 214	Applied Anatomy and Physiology	4
CS 270	Computer Statistical Techniques I	3
HIST 130	The Modern World	3
PHIL 110	Introduction to Philosophy	3

PSYCHOLOGY TRACKS—Select one course from each of the following tracks:

A. Developmental

PSY 210*	Developmental Psychology	3
PSY 320	Psychology of Adolescence	3
PSY 330	Psychology of Aging	3
PSY 340	Infancy	3
PSY 352	Psycholinguistics	3

*Prerequisite to all courses in the developmental track.

B. Information Processing

PSY 250	Psychology of Consciousness	3
PSY 352	Psycholinguistics	3
PSY 354	Psychology of Learning	3
PSY 375	Human Information Processing	3
PSY 420	Perception	3
PSY 450	Cybernetic Psychology	3

C. Social

PSY 120	Psychology of Social Issues	3
PSY 130	Psychology in Business and Industry	3
PSY 220	Social Psychology	3
PSY 311	Psychology of Women	3
PSY 360	Environmental Psychology	3
PSY 380	Field Methods in Psychology	3

D. Physiological

BIPY 474	Introduction to Neuroscience	4
BIPY 475	Behavior Genetics	4
BIPY 476	Developmental Biopsychology	3
BIPY 479	Biorhythms in Physiology and Behavior	3
BIPY 499	Current Topics in Biopsychology	3
PSY 353†	Physiological Psychology	3
PSY 415	Psychopharmacology	3
PSY 460	Comparative Psychology	3

†Prerequisite to all courses in the physiological track.

E. Clinical/Personality

PSY 310	Psychological Testing	3
PSY 322	Group Dynamics (p/f grades only)	3
PSY 350	Theories of Personality	3
PSY 351	Abnormal Psychology	3
PSY 410	Introduction to Counseling and Psychotherapy	3

MINOR REQUIREMENTS 18 credits

PSY 110	General Psychology	3
PSY 210	Developmental Psychology	3
PSY 220	Social Psychology	3
PSY 230	History and Systems of Psychology	3

Plus two additional psychology courses by advisement 6

Courses

Unless otherwise noted, all courses are for 3 credits.

PSY 110 General Psychology

An intensive investigation of the chief facts, principles and problems of human behavior with special emphasis on current research and theory. The biological foundations of behavior, sensory processes, learning, perception, thinking, emotion, motivation, personality and behavior pathology are examined to establish the foundations for advanced study in psychology.

PSY 120 Psychology of Social Issues

Basic concepts, theories and research findings from the field of psychology applied to an analysis of major social problems confronting American society.

PSY 130 Psychology in Business and Industry

Applications of psychology (experimental, social, clinical, and industrial) in the areas of business and industry including human performance, organizational behavior, marketing and advertising.

PSY 202 Experimental Psychology I: Applied Statistics

An introduction to contemporary statistical procedures and computational aids appropriate to researchers in the behavioral sciences. Emphasis on "generalized" factorial research design and data analysis procedures. Laboratory sessions provide experience in the application of lecture material. 4 credits

PSY 203 Experimental Psychology II: Laboratory

A continuation of PSY 202. Acquaints students with the nature of scientific investigation with special emphasis on the use of experimental techniques in the behavioral sciences. Participation in laboratory experiments and the design and completion of an original research project are required. 4 credits

PSY 210 Developmental Psychology

The development of the individual through the life span, with special attention to early childhood. Theories of Erikson and Piaget, and their practical applications, are considered.

PSY 220 Social Psychology

Issues related to social behavior and influence, including interpersonal relationships and group processes are explored and analyzed.

PSY 230 History and Systems of Psychology

The foundations of modern psychology, starting with Descartes. Historical and philosophical understanding of the growth of psychology as a discipline and the emergence of contemporary viewpoints are surveyed.

PSY 250 Psychology of Consciousness

Examines the different forms of consciousness, the synthesis of these different streams of knowledge, and their relationship to individual, unconnected states of awareness. Covers intellectual and intuitive modes.

PSY 310 Psychological Testing

The nature and functions of psychological testing, the interpretation of tests through scores, and clinical and research hypotheses. Covers intelligence, aptitude, personality tests; particular emphasis on clinical interpretation.

PSY 311 Psychology of Women

Various psychological theories of women—Freud and the Freudians, Karen Horney, the behaviorists and the feminists—are surveyed, and various psychological research findings are evaluated.

PSY 320 Psychology of Adolescence

A consideration of the psychological effect of physical maturity on the interests and intellectual development of the adolescent. Includes a study of recreational activities, educational needs, and the social and emotional problems of the age group. Prerequisite: PSY 210

PSY 322 Group Dynamics

A study of interpersonal behavior and group processes, emphasizing the laboratory approach and the techniques 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. Prerequisite: PSY 220, pass/fail only

PSY 330 Psychology of Aging

Examines the psychology of aging including social, developmental, cognitive and biological perspectives. Also explores aging as a current social issue, with emphasis on mental health aspects. Prerequisite: PSY 210

PSY 340 Infancy

A survey of research and theory relating to psychological development during infancy. Prerequisite: PSY 210

PSY 350 Theories of Personality

Various approaches to personality as defined by Freud, Adler, Jung, Horney, Sullivan, Allport, Rogers, Maslow and Kelly are explored.

PSY 351 Abnormal Psychology

Issues of abnormal personality and behavior, in terms of the adaptation of the individual to his social environment. Includes consideration of the dynamics of personality development and adjustment.

PSY 352 Psycholinguistics

An academic study of the major theories of speech and language acquisition, combined with direct observation of such behavior in 2-5 year olds. Approximately one half of the time is devoted to field study. Prerequisite: PSY 210

PSY 353 Physiological Psychology

Explores the interrelationships between the physiology of the nervous system and psychological functions such as perception, consciousness, motivation, emotion, reward, memory and learning. Prerequisites: PSY 110 and BIO 214, or equivalent

PSY 354 Psychology of Learning

An examination of the research methods, empirical findings and theoretical interpretations of conditioning and learning phenomena, including historical and current trends in research and theory in this area.

PSY 360 Environmental Psychology

Focuses on man's psychological states and social behavior in relation to his physical environment, both natural and man-made. Includes spatial features of social interaction, the behavioral properties of places, and locational behavior of individuals and groups.

PSY 375 Human Information Processing

A critical examination of man's information processing capabilities and limitations. Emphasis on the theoretical principles that underlie the attention, perception and memory of events, as well as current research problems. Prerequisite: PSY 203 recommended

PSY 380 Field Methods in Psychology

Familiarizes students with methods other than the laboratory experiment for doing field research. Includes a general overview of field surveys, field studies, and field experiments, stressing problems of internal and external validity associated with each quasi-experimental design. Prerequisites: PSY 202 and 220

PSY 381 Psychology of Agression

The phenomenon of human aggression is studied from developmental, cognitive, learning, social and cross-cultural viewpoints.

PSY 382 Operant Modification of Behavior

The modification of human and animal behavior through the application of principles of learning is explored. Prerequisites: PSY 110 and 354
4 credits
Laboratory required

PSY 410 Introduction to Counseling and Psychotherapy

Emphasizes 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. Prerequisite: PSY 350 or 351

PSY 415 Psychopharmacology

Focuses on the major classes of drugs which alter brain and psychological functioning. Examines, in depth, and compares the effects of these drugs and the mechanisms by which they act. Prerequisites: BIO 112-113 or BIO 163-164 or PSY 353

PSY 420 Perception

Examines the processes by which organisms form concepts of the environment through the senses. Includes 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. Prerequisite: PSY 353

PSY 450 Cybernetic Psychology

The basic concepts of cybernetics—feedback, survival, regulation, information, amplification, etc.—are developed to show how general scientific models of the control of behavior in brains, man, society and machines can be developed. Prerequisite: PSY 353; recommended: PSY 375

PSY 460 Comparative Psychology

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; 3) attempts to further our understanding of the complex relationship between the disciplines of biology and psychology. Prerequisites: PSY 354 and either PSY 203 or 380

PSY 480 Seminar in Psychology

An in-depth consideration of a specialized topic from current research literature in psychology. Topics vary each semester. Prerequisites: PSY 203, 230

PSY 485 Research Techniques in Physiological Psychology

Introduces the student to investigative techniques, including methods of preservation and histological preparations of nervous system tissue; implantation of electrodes and cannulas for electrical and chemical brain stimulation respectively; lesioning, electrical and human EEG recording, and biofeedback procedures. Prerequisites: PSY 203 and 353

PSY 499 Independent Study

As approved and to be arranged. See also courses listed under biopsychology. 1-3 credits

Department of Sociology/Anthropology and Geography

Professors—F. Alliston (geography coordinator), P. Chao, V. Parrillo (chairman), J. Stimson, P. Vouras, M. Weil

Associate Professors—R. Davis, J. Fitzsimmons, E. Kedar, S.M. Rhim, P. Stein

Assistant Professors—L. Carelli, R. Glassman, C. Magarelli, R. Martorella, F. Pearson, J. Pollack

Instructor—R. Moore

Sociology/Anthropology

The sociology/anthropology major offers a joint program leading to the degree of bachelor of arts. This program is designed to acquaint students with basic concepts necessary to understand human relationships in our pluralistic society; contribute to the student's liberal education and cultural background; provide basic courses in general theory, methodology and specialized areas; supply relevant background for students preparing for fields in which a knowledge of human relations is essential.

MAJOR REQUIREMENTS 33 credits

SOC 110	Principles of Sociology	3
SOC 130	Introduction to Anthropology	3
SOC 254	Sociological Research Methods	3
SOC 303 or SOC 402	History of Social Theory	3
SOC 402	Modern Sociological Theory	3
Plus 21 credits selected from the following by advisement:		
SOC 120	Marriage and the Family	3
SOC 200	Human Races	3
SOC 201	Social Problems	3
SOC 205	Crime and Custom in Tribal Society	3
SOC 210	Archaeology	3
SOC 250	Urban Sociology	3
SOC 251	Minority Groups in America	3
SOC 253	Elementary Sociological Statistics	3
SOC 254	Sociological Research Methods	3
SOC 255	Qualitative Sociological Methods	3
SOC 256	Political Sociology	3
SOC 257	Sex and Taboo in Primitive Societies	3
SOC 260	Myth and Folklore and the Modern World	3
SOC 265	Human Sexuality	3
SOC 290	Introduction to Social Work	3
SOC 300	Social Welfare Policy	3
SOC 302	Biological Anthropology	3
SOC 303	History of Social Theory	3
SOC 310	Sociology of War	3
SOC 319	Industrial Union Organization	3

SOC 320	Sociology of Labor	3
SOC 321	Labor Studies In Field-work Problems	3
SOC 322	Sociology of Organizations	3
SOC 323	Labor Organization and Organizing	3
SOC 324	Sociology of Religion	3
SOC 325	Sociology of Social Movements	3
SOC 326	American Religion	3
SOC 327	Collective Behavior	3
SOC 328	Sociology of the Arts	3
SOC 330	Sociology of Death and Grief	3
SOC 331	Evaluation of Social Action	3
SOC 332	Public Employees Unionism	3
SOC 333	Sociology of Adulthood	3
SOC 335	Sociology of Law	3
SOC 341	Primitive and Modern Law	3
SOC 342	East Asian Ethnology	3
SOC 353	Human Types: A Comparative Study of Cultures	3
SOC 354	Social Stratification	3
SOC 359	Cultural Change in Latin America	3
SOC 360	Self and Society	3
SOC 361	Psychological Anthropology	3
SOC 362	Family in Socialist Societies	3
SOC 363	Women and Religion: East and West	3
SOC 365	Social Deviance	3
SOC 370	Population and Society	3
SOC 371	Forecasting Future Societies	3
SOC 381	Sociology of Socialization	3
SOC 390	Medical Sociology	3
SOC 392	Sociology of Aging	3
SOC 402	Modern Sociological Theory	3
SOC 406	Social and Environmental Change	3
SOC 408	Indians of North America	3
SOC 420	Internship in Labor Studies	3
SOC 421	The Sociology of Revolution	3
SOC 450	Shamans, Witches and Magic	3
SOC 455	Crime and Delinquency	3
SOC 499	Independent Study	1-3

MINOR REQUIREMENTS 18 credits

SOC 110	Principles of Sociology	3
SOC 130	Introduction to Anthropology	3
SOC 303	History of Social Theory	3
or		
SOC 402	Modern Sociological Theory	3

Plus an additional 9 credits in sociology/anthropology courses by advisement.

Courses

Unless otherwise noted, all courses are for 3 credits.

SOC 110 Principles of Sociology

Examines the structure and dynamics of human society and interprets social behavior within the context of modern society and culture.

This course is a prerequisite to all other sociology courses unless waived by the instructor.

SOC 120 Marriage and the Family

A sociological approach to the study of marriage and family living. The student is required to develop a critical evaluation of studies and research in the field.

SOC 130 Introduction to Anthropology

Designed to study humanity from the broadest perspective in the social sciences. Through an introduction to basic concepts in cultural/social anthropology, archaeology, physical anthropology and linguistics, students gain an appreciation of human evolutionary history, modern cultural diversity and the elements of social life all humans share.

SOC 200 Human Races

Describes races of humans in the world at large and examines physical differences found in human species. These differences are related to some extent to the physiological demands of various climates. Prerequisites: SOC 110 and 130

SOC 201 Social Problems

An examination of various social problems from a sociological perspective. The inter-relatedness of social problems and the role of value-beliefs are stressed.

SOC 205 Crime and Custom in Tribal Society

A study of the traditions, customs and jurisprudence in pre-literate society which brought about social cohesion and order.

SOC 210 Archaeology

Introduces students to the scientific study of extinct societies. Research design, site survey and excavation, data recording and interpretation, artifact identification and treatment, and cultural resource management are among the topics covered. Prerequisite: SOC 130 or permission of the instructor

SOC 220 Introduction to Labor Studies

An analysis of the nature of work, the individual's relation to work, the organizations workers form to protect their interests, and the interactions among workers, their organizations and other institutions.

SOC 250 Urban Sociology

Examines the growth and development of cities, but with primary 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.

SOC 251 Minority Groups in America

Examines the experiences of all racial and ethnic groups, from colonial beginnings to the present day, from a sociological perspective. Particular emphasis on the recurring patterns in dominant-minority relations; differential powers; the ethnic diversity in American society; the contributions, socioeconomic conditions and institutional variation of each group.

SOC 253 Elementary Sociological Statistics

A basic course introducing the use of quantitative methods to describe social life. No special mathematics background or aptitude required. Emphasis 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

Students learn to evaluate research reports so that their future decisions and work are based on social facts. Class discussions explore reasons why valid research is the basis of effective social action. Students also gain practice in basic data gathering techniques such as observation, interviewing and questionnaire construction. No statistics or mathematics prerequisites.

SOC 255 Qualitative Sociological Methods

Provides 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

Examines 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.

SOC 257 Sex and Taboo in Primitive Societies

The sexual impulse and its possible manifestations in the myths and customs of savages. Views on the origins and force of culture are examined.

SOC 260 Myth and Folklore and the Modern World

Examines myths as providers of introspective patterns of moral values, social order, customs and religious beliefs. Traditional folklore (stories, riddles, songs) and modern folklore (mass media, urban cultures) are examined.

SOC 265 Human Sexuality

A biological, psychological and sociological study of human sexuality and the interaction between the biological and psychological needs of the individual. Covers curriculum and instruction for sex education in the schools.

SOC 300 Social Welfare Policy

A study of the values, knowledge and ideology underlying the development of social welfare policy and programs. Specific social welfare policies are examined, with emphasis on current policies and programs.

SOC 290 Introduction to Social Work

Provides a general knowledge of the purpose, history and practice of social work. The skill bases of social work and their application to social work practice are examined.

SOC 302 Biological Anthropology

An introduction to the biological perspective in anthropology including primate evolution, the living, non-human primates, the evolution of primate behavior, the human fossil record, and modern human variation and adaptability. The biocultural nature of humans is emphasized.

Prerequisite: SOC 130, or permission of the instructor

SOC 303 History of Social Theory

Focuses on the works of the great classical sociologists. The theories of Comte, Spencer, Durkheim, Marx, Weber, Simmel, Pareto, George Herbert Mead, and others are analyzed in light of contemporary social conditions and in terms of the development of sociological theory.

SOC 310 Sociology of War

Examines the theories surrounding the causes, nature and effects of modern warfare and its influence on shaping social structure and personality.

SOC 319 Industrial Union Organizations

The structure, organization, behavior and relationship of industrial unions in the United States. The role of industrial unions in shaping labor and social programs and policies is stressed.

SOC 320 Sociology of Labor

Examines three levels of labor activity: working class roles, labor disputes and collective action. The study of national labor movements from the founding of the IWW to the present rank and file movements of today.

SOC 321 Labor Studies in Fieldwork Problems

Designed to introduce students to current problems in labor research, labor organizing and labor law. Local resources and personnel form the backdrop for much of the study in research. Stresses current organizing and legal battles affecting the labor movement.

SOC 322 Sociology of Organizations

A theoretical course tracing development of organizational theory to the present; a practical course, considering the increasing impact of bureaucratic organizations on our lives.

SOC 323 Labor Organization and Organizing

Examines the structural problems facing labor administrative apparatus at the state and local levels. Regional problems related to organizing tasks are discussed within the framework of current labor law and collective bargaining techniques.

SOC 324 Sociology of Religion

Examines the social dimensions of religion and the relationship between religion and society.

SOC 325 The Sociology of Social Movements

Course is 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

Analyzes the social meanings of religion in America, with particular reference to the liberal and conservative viewpoints. Explores the social significance of contemporary religious developments and movements such as the Jesus Movement, cultism and Reverend Ike's Blessing Plan.

SOC 327 Collective Behavior

An introduction to various types of collective behavior with a comparison of theoretical approaches to each type. Focuses on groups of large size, with or without face-to-face interaction. Political expressions are discussed, but the course orientation is theoretical and empirical, rather than ideological.

SOC 328 Sociology of the Arts

Designed to show the reciprocal relationship between the arts and society. Examines how various attitudes, values, norms and institutions of society are revealed in mass culture forms (e.g. television, rock music, painting, literature, theater, dance, photography and film). In an effort to help the student understand the vital place of the arts in society, as well as the impact of culture on the arts.

SOC 330 Sociology of Death and Grief

Death as an institution is studied by focusing on death and social values, cultural components of grief, and social functions of bereavement. Particular attention is paid to the social organization of death and dying in bureaucratic settings.

SOC 331 Evaluation of Social Action

The principles, techniques and applications of evaluation research are learned through the utilization of research methodology and statistics. Students develop fieldwork projects for analysis in the areas of administrative studies, education, public safety, law, health, nursing, social and behavioral sciences.

SOC 332 Public Employees Unionism

The scope and nature of public employment. The socio-economic factors which contributed to the rise of public employees unions and the unions' impact on the labor movement are examined.

SOC 333 Sociology of Adulthood

Focuses on the major issues for women and men during the early and middle years of adulthood. Included are an examination of personality development; singlehood, marriage, family and parenting roles; work, career and avocational experiences.

SOC 335 Sociology of Law

An analysis of the social basis, functions and effects of law both as a profession and as a system of social control.

SOC 341 Primitive and Modern Law

Explores the interaction between the legal norms operating in modern and primitive societies.
Prerequisite: SOC 130

SOC 342 The Ethnology of East Asia: China and Japan

Examines the development of Chinese and Japanese culture through the study of marriage, the family, village life, economic organization, religion. Modernization, industrialization and cultural change are explored.

SOC 353 Human Types—A Comparative Study of Cultures

Designed to study persons as biological as well as social animals. Physical characteristics of races and the culture and development of primitive and modern persons are stressed.

SOC 354 Social Stratification

Treats both theory and realities with an emphasis on American society. Course concludes with an examination of power in the United States.

SOC 359 Cultural Change in Latin America

The origin and development of processes of culture change in Latin America. Gives the student an opportunity to learn about the cultural institutions of highly developed indigenous cultures and their influences upon present-day Latin American cultures. Examines current writings on Latin America which deal with social change, and helps the student develop scientific objectivity (an anthropological prerequisite) in his analysis of the social problems resulting from change. Particularly useful for international management majors.

SOC 360 Self and Society

A study of the impact of society on the formation of each individual's personality through analysis of language, definitions and values.

SOC 361 Psychological Anthropology

The interaction of culture and personality in various parts of the world. Explores specific topics which have cultural impact on the development of personality.

SOC 362 Family in Socialist Societies

An examination and comparison of the family systems of the West and of the socialist societies of Russia and China.

SOC 363 Women and Religion: East and West

Attempts to meet a growing need for a more exact idea of the role of world religions in shaping the traditional cultural images that have degraded and suppressed women. Specifically, compares women of the four major faiths of the East—Hinduism, Buddhism, Confucianism and Islam—with those of Judeo-Christian faiths of the West.

Prerequisites: SOC 110 and 324

SOC 365 Social Deviance

Examines the concept of "deviance" in society through a study of the issues of value judgments, abnormality and eccentricity. Implications are found for the causes of the behavior of groups socially labeled as deviant.

SOC 370 Population and Society

Addresses four problems: 1) dangers of world population growth for individual 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 371 Forecasting Future Societies

Students are introduced to current and classical models of social change, visionary forecasts found in utopian and dystopian fiction, and the field of futuristics and the art of social forecasting.

SOC 381 Sociology of Socialization

An in-depth analysis of personality development and behavior modification from infancy to adulthood through various agents of socialization. The work of Aries, Freud, Mead, Erikson, Bettelheim, Goodman and Sheehy are included.

SOC 390 Medical Sociology

Analyzes social factors in relation to health and disease. Considers 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. Uses both theory and current research.

SOC 392 Sociology of Aging

The demography of aging, age and its social structure; age as a social problem. Population trends are examined as they relate to health problems of the elderly. Focus on the changing role of the elderly in the kinship network.

SOC 395 Anthropology of Aging

Introduces the student to the meaning of aging as a part of the total maturational cycle.

SOC 400 Sociology of Knowledge

Analyzes 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.

SOC 401 Social Work With Groups

The course is designed to facilitate the student's understanding of the various theoretical underfindings of social group work practice. Students acquire a basic knowledge of group work that focuses on the application of theory to techniques.

SOC 402 Modern Social Theory

An analysis of contemporary social thought expressed by Talcott Parsons, Robert H. Merton, C. Wright Mills, Lewis Coser, R. Dahrendorf, Herbert Marcuse, G. H. Mead, E. Goffman, H. Blumer, Peter Blau, G. Homans, Garfinkel, and others.

SOC 406 Social and Environmental Change

Problems of environmental social change are critically examined and evaluated. Emphasis on exploring small and large scale modes of change. Develops skills in the analysis of social change. Students learn to design micro changes on the institutional level and to recognize what connections do and do not exist between micro and macro level changes.

Prerequisite: SOC 110 or permission of the Instructor

SOC 408 Indians of North America

Demonstrates the continuum of indigenous cultures in North America, from pre-Columbian times to the present, using historical, ecological and empirical field data to study cultural processes and changes and the ways they affect interethnic and interracial interaction in the United States.

SOC 420 Internship in Labor Studies

Designed primarily for students interested in practical aspects of labor organization relations, who may be considering labor service. Students work 8-40 hours a week under the guidance of experienced labor officials. Field placements are made to enable students to participate in labor functions. Periodic conferences and a monthly seminar serve to round out the program.

3-15 credits

SOC 421 The Sociology of Revolution

Examines revolution as a social phenomenon. Particular attention is given to contrasting the theories of revolution of the traditional Marxian urban worker-centered insurrection with Third World guerrilla warfare groups.

Prerequisite: SOC 110

SOC 450 Shamans, Witches and Magic

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 the cultural roles of the shaman, witch and sorcerer.

SOC 455 Crime and Delinquency

Analyzes various aspects of crime and delinquency as forms of social deviation and the etiology of crime in a contemporary context.

SOC 499 Independent Study

As approved and to be arranged.
1-3 credits

Geography

The geography major offers a program, leading to the degree of bachelor of arts, designed to acquaint students with "Spaceship Earth." Majors who wish to teach in secondary schools should pursue courses necessary for meeting certification requirements in social studies. Students who wish to study certain specific areas of geography, and/or attend graduate school, are urged strongly by their advisors to take the appropriate minor program or programs. All majors are assigned an advisor.

MAJOR REQUIREMENTS 30 credits

GEO 120	Man's Physical World	3
GEO 130	Human Ecology	3

Plus three of the following:

GEO 230	Population and Settlement	3
GEO 233	Geography of World Economic Activity	3
GEO 300	Geopolitics	3
GEO 401	Cartography	3

Plus five of the following:

GEO 204	N.J. Wildlife at the Crossroads	3
GEO 230	Population and Settlement Geography	3
GEO 233	Geography of World Economic Activities	3
GEO 250	The Historical Geography of the Bible Lands	3
GEO 300	Geopolitics	3
GEO 330	The Geography of the Metropolitan Area	3
GEO 331	Asia's Geography and Problems	3
GEO 332	Middle East's Geography and Problems	3
GEO 333	Europe's Geography and Problems	3
GEO 334	Africa's Geography and Problems	3
GEO 335	Latin America's Geography and Problems	3
GEO 336	Soviet Union's Geography and Problems	3
GEO 337	Australia and Oceania's Geography and Problems	3
GEO 338	U.S.'s and Canada's Geography and Problems	3
GEO 339	New Jersey's Geography and Problems	3
GEO 365	Man, Nature and Wildlife	3
GEO 404	Polar and Arctic Geography	3
GEO 405	The Geography of Oceans	3

GEO 410	The Historical Geography of the U.S.	3
GEO 416	Military Geography of the Twentieth Century	3
GEO 480	Senior Seminar	3
GEO 499	Independent Study	1-3

MINOR REQUIREMENTS 18 credits

GEO 120	Man's Physical World	3
Plus 15 credits in geography by advisement.		

CERTIFICATION REQUIREMENTS 61 credits

Students interested in obtaining teacher certification in social studies must complete the following:

Academic Content Requirements 21 credits

One of the following courses:

AAAS 110	Afro-American History to 1865	3
AAAS 111	Afro-American History Since 1865	3
AAAS 300	The Black Family	3
AAAS 315	Afro-American Background for Teachers	3

Plus one of the following courses:

ECON 201	Macroeconomic Principles	3
ECON 202	Microeconomic Principles	3
ECON 230	Economics of the Environment	3

Plus one course in each of the following areas:

Political Science	3
Sociology/Anthropology	3
European History	3
Plus two American history courses	6

Note: Courses listed above may be taken in partial fulfillment of general education requirements.

Teaching Certification Requirements 40 credits

PSY 110	General Psychology	3
HSC 120	Current Health Issues	3
TED 310	Educational Psychology	3
HSA 301	Discussing Your Teaching Self	1
SED 340	Exploring the Teaching Field	3
RLA 329	Foundations of Reading	3
RLA 330	Reading Strategies	3
or		
SED 383	Teaching Reading Grades 5-12	3
SED 301	Curriculum and Its Implementation	3
SED 331	Implementing Your Teaching Major: Social Studies	3
EDUC 403	Culminating Field Experience	8
SED 404	Instructional Seminar for Student Teaching	1

Plus two education electives 6

Note: In planning certification requirements, students should seek advisement from the School of Education and Community Service.

Courses

Unless otherwise noted, all courses are for 3 credits.

GEO 110 Cultural Geography

An application of the concept of earth as the home of man. Special emphasis on the geographical analysis of human environment as a result of the intricate variety of cultural-world/physical-world interactions.

GEO 120 Man's Physical World

Designed to elucidate the patterns of the physical earth and man's environment. Central focus on the functional interrelationships of geography, land forms, climate, soil, vegetation and water.

GEO 130 Human Ecology

Concerned with the conservation of natural resources and man's role in altering the face of the earth.

GEO 150 World Regional Geography

A survey of the whole earth by continent and natural regions; basic physical, cultural, socioeconomic and political factors are considered.

GEO 204 New Jersey Wildlife at the Crossroads

A study designed to introduce the student to the complexities of wildlife management in the heart of the urbanized Northeast U.S. A variety of field trips are taken to help the student experience man-land-animal relationships.

GEO 230 Population and Settlement Geography

A geographical interpretation of the world's population distribution, numbers and dynamics through time. Special emphasis on the distribution of man's habitation forms and patterns, including the functioning of urban areas.

GEO 233 Geography of World Economic Activity

Examines man's economic activities on a global scale. Contributions of cultural and physical environmental factors to these activities are analyzed.

GEO 250 The Historical Geography of the Bible Lands

An analysis of the geography of the ancient Near East and other ancient Near Eastern areas.

GEO 300 Geopolitics

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 330 The Geography of the Metropolitan Area

A study of the four basic elements of the greater New York area: physical setting and geographical location; historical development, activities and cultural functions.

GEO 331-380 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**GEO 332 Middle East's Geography and Problems****GEO 333 Europe's Geography and Problems****GEO 334 Africa's Geography and Problems****GEO 335 Latin America's Geography and Problems****GEO 336 The Soviet Union's Geography and Problems****GEO 337 Australia and Oceania's Geography and Problems****GEO 338 United States and Canada's Geography and Problems****GEO 339 New Jersey's Geography and Problems****GEO 365 Man, Nature and Wildlife**

Aspects of biogeography and zoogeography, designed to introduce basic ecological and geographic concepts concerning management practices.

GEO 401 Cartography

A basic course in map making. Covers projections, thematic, relief and statistical cartography.

GEO 404 Polar and Alpine Geography

Analyzes interrelationships 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

A synthesis of the techniques and competencies of physical, cultural, economic and political geography as they apply to the oceans of the world. How human life and activity are affected by oceanic geography is explored.

GEO 410 The Historical Geography of the United States

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 Twentieth Century

A study of the major conflicts of this century utilizing concepts and methodologies of physical, political, economic and social geography. In essence, an in-depth investigation of historical geography.

GEO 480 Senior Seminar

A description of the aims, methods, deeds and rewards of geography as a discipline. Considers programs and positions in geography.

GEO 499 Independent Study

As approved and to be arranged.
1-3 credits

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 National Student Exchange Program
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 New Jersey Association of Colleges and Universities
 New Jersey College and University Public Safety Association
 New Jersey Cooperative Education Consortium
 New Jersey Marine Science Consortium
 New Jersey State Nurses Association
 Paterson Chamber of Commerce
 Wayne Chamber of Commerce

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