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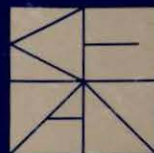
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Kean College of New Jersey

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# UNDERGRADUATE CATALOG 1986-88



KEAN COLLEGE  
OF NEW JERSEY

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**Kean College  
of New Jersey**

**Undergraduate  
Catalog**

**1986-1988**



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# GENERAL INFORMATION ABOUT KEAN COLLEGE



Kean College of New Jersey is a major regional institution of higher learning serving students from the communities of New Jersey and its neighboring states.

The mission of the college is threefold:

- To provide quality instruction, built upon a firm liberal arts foundation, leading to employment, graduate or professional education and professional and personal development;
- To encourage scholarship and research and to exert creative leadership in the improvement of the learning process;
- To serve the community with the best academic resources and personnel.

Kean College was founded in 1855 in the city of Newark and for the next century was devoted to the development of educators. In 1958 the College moved to Union Township, occupying 120 acres of the historic Kean estate. Since that time, the institution's character, size and scope have been dramatically transformed.

Twelve thousand men and women now attend Kean College.

They are instructed by a distinguished faculty in the arts, humanities, sciences, applied disciplines and teacher education. This diversity comes from the capacity of the College to promote traditional areas of study while innovating in and expanding those programs which address emerging societal needs, for instance, in the health professions, administrative sciences and human and social services.

There are forty-eight academic degree programs on the graduate and undergraduate levels which students may pursue on full-time or part-time basis.

Kean College is committed to affirmative action in its admissions and employment practices. Furthermore, the College encourages participation of the disabled and provides support systems to facilitate their access to live and work within the institution.

Kean College of New Jersey invites prospective students and members of the academic community, business and industry to visit the campus and to inquire further into the institution's curriculum and services. The Admissions Office conducts tours at 10 a.m. Fridays during the academic year.

Kean College of New Jersey is accredited by the Middle States Association of Colleges and Schools. All major programs in professional education are approved by the National Council for Accreditation of Teacher Education and by the National Association of State Directors of Teacher Education and Certification. The College is licensed by the New Jersey State Department of Higher Education.

Certain baccalaureate programs are individually accredited by national professional organizations. Where appropriate, such information is included in the program's description.

The college is located in Union and Hillside townships. The campus is quiet and spacious, spread over 148 acres of woods and lawns, bordering a Union County park and the Elizabeth River. Traffic is restricted to the perimeter of the campus. Only walkways and footbridges traverse the broad interior mall. A total environment has been created in which both esthetic and functional concepts are carefully integrated.

Access to the college is excellent with its proximity to major networks of transportation. This, in turn, makes the continuous cultural and intellectual interchange between the cities and the college possible. On-campus parking is provided for visitors, faculty and students.

Between the campuses is Liberty Hall, home of New Jersey's first governor, William Livingston. For 200 years, Liberty Hall has remained the residence of his descendants including the present Kean family, from whom the College acquired its land in 1954.

James Townley House—c. 1790, listed in both the New Jersey and National Register of Historic Places. An example of a late 18th, early 19th century farmhouse, it is particularly significant as one of the few extant period buildings reflective of the area's early rural character in what is now a predominantly urban environment. The Squires First Aid Squad (volunteer ambulance squad serving both West and East campuses) is located in Townley House.

The Kean Library—One of the original Kean estate buildings and a faithful replica of Norman architecture, panelled with oak from Nottinghamshire, the traditional retreat of Robin Hood. Built by Senator Hamilton Fish Kean, it housed the Senator's extensive private library and became a meeting place for politicians and statesmen. The Nursing department is housed here.

Townsend Hall—Executive offices, administrative faculty offices, classrooms. Named for M. Ernest Townsend, President of the College, 1929-1939. The original building is extended by the Industrial Studies Wing and Bruce Hall, named for Guy V. Bruce, professor emeritus. These areas contain classrooms, shops and science laboratories.

College Center—Little Theatre, snack bar, lounges, student activities offices and meeting rooms.

Student Activities Building—The Jane Plentky Book Store (Barnes & Noble), Health Services, Counseling Center, lounges, offices and bank.

D'Angola Gymnasium—Gymnasiums; swimming pool; dance studio. Named in memory of Joseph A. D'Angola, head of the Health and Physical Education Department and Dean of Men, 1935-1956, and for Anita B. D'Angola, head of Women's Physical Education, 1916-1956.

Campus School—Cluster of five buildings of classrooms and offices, housing the Department of Special Education, Institute of Child Study and Computer Center.

Nancy Thompson Library—700 seating stations, from conference rooms to individual and research study carrels; curriculum materials room; extensive book collections, periodicals, microfilm. Named for Nancy Thompson, chief librarian from 1914-1957.

Wilkins Theatre for the Performing Arts—1000-seat semicircular auditorium, teaching studios, reception hall. Named for Eugene G. Wilkins, President of the College from 1950-1969.

Willis Hall—Classrooms, faculty offices. Named for William Spader Willis, chief administrator from 1899-1928.

Downs Hall—Student and faculty dining rooms, meeting rooms and lounges. Named for Martha Downs, chairperson of the Mathematics Department.

Dougall Hall—Campus police facilities, recreation rooms. Named for John B. Dougall, President of the College from 1944-1950.

Vaughn-Eames Hall—Workshop and exhibit space for the fine and theatre arts, studios and classrooms. Named for Lenore Vaughn-Eames, alumna and member of the faculty. James Howe Gallery—housing current faculty and student art exhibits.

Science Building—Class and research laboratories, faculty offices.

Hutchinson Hall—Instructional Resource Center, lecture hall, classrooms, faculty offices. Named for John C. Hutchinson, chairperson of the Department of Sociology.

Administration Building—Offices of business and academic services.

Whiteman Hall—Freshman Dormitory. Named for Harriet E. Whiteman, dean emeritus.

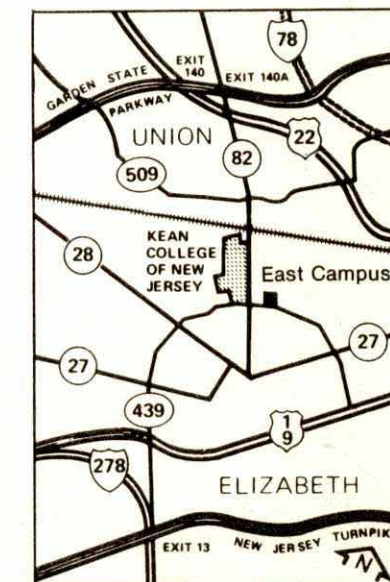
College Apartments—Four mid-rise buildings with apartment accommodations for 1,000 men and women. Named in honor of Mary B. Burch, member of the Board of Trustees; Mary B. Bartlett, member of faculty; and Laura E. Rogers, alumna and member of faculty; and in memory of Ralph P. Sozio, student at the college.

East Campus Facility—Gymnasiums; swimming pool; administrative offices; meeting rooms; 600-seat auditorium; career placement center; campus ministry; adult learning center; career planning and placement; and library.

Alumni House—East Campus—offices and meeting rooms.

Student offices of 40 academic and social organization are available at the College.

The general organization of Kean College is shown in the chart on the next page. A listing of academic departments follows the chart. These departments are divided among three schools, and the statements of the degree requirements found in a subsequent section of this catalog are grouped by school.



KEAN COLLEGE OF NEW JERSEY

President  
Dr. Nathan Weiss

Vice-President  
for Student Services  
Mr. Pat Ippolito

Vice-President  
for Academic Affairs  
Dr. Frank Esposito

Vice-President  
for Administration and  
Finance  
Mr. Charles Kimmett

Dean of Academic  
Services  
Mr. Fred Marder

School of Education,  
Technology, and  
Related Professions  
Dr. James Cook,  
Dean

School of Humanities,  
Social and Administrative  
Sciences  
Dr. Mary Lewis,  
Dean

School of Natural Sciences,  
Nursing and Mathematics  
Dr. T. Felder Dorn,  
Dean

ACADEMIC DEPARTMENT DEANS AND CHAIRPERSON

SCHOOL OF EDUCATION, TECHNOLOGY, AND RELATED PROFESSIONS

Dr. James Cook	Dean	T-111	2136	
Dr. Ana Maria Schuhmann	Acting Assistant Dean	T-111	2136	
Dr. Fred Arnold	Assistant to the Dean	T-111	2136	
Communication Sciences and Educational Services	Dr. Albert Mazurkiewicz	J205B	2070	
Instruction, Curriculum and Administration	Dr. Myra Weiger	W105D	2175	
Early Childhood and Family Studies	Dr. Michael Knight	B102F	2094	
Physical Education, Recreation and Health	Dr. Dolores Shiposh	D130E	2101	
Special Education and Individualized Services	Dr. Elaine Fisher	CSE102	2264	
Technology	Dr. Daniel Cokewood	H-110	2063	

SCHOOL OF HUMANITIES, SOCIAL AND ADMINISTRATIVE SCIENCES

Dr. Mary Lewis	Dean	T-107	2034	
Dr. Michael Lampert	Acting Assistant Dean	T-107	2034	
Mr. James Jandrowitz	Assistant to the Dean	T-107	2034	
Economics/Management Science	Dr. Marcel Fulop	W405	2067	
English	Dr. Bernard Weinstein	W303D	2092	
Fine Arts	Prof. Leonard Pierro	VE403B	2309	
Foreign Languages	Dr. Orlando Edreira	J309	2289	
History	Dr. Lawrence Zimmer	W203E	2167	
Music	Dr. Michael Montgomery	TPA123	2108	
Philosophy	Dr. Mervyn D'Souza	J104B	2312	
Political Science	Dr. Howard Rubin	J105A	2066	
Psychology	Dr. Herbert Samenfeld	J330	2170	
Sociology/Anthropology/Social Work	Dr. Mary Lou Mayo	J305B	2090	

SCHOOL OF NATURAL SCIENCES, NURSING, AND MATHEMATICS

Dr. T. Felder Dorn	Dean	T-121	2138	
Dr. Lidija L. Kampa	Acting Assistant Dean	T-121	2139	
Biological Sciences	Dr. Frank Osborne	C-123	2012	
Chemistry/Physics	Dr. Ronald Criasia	C-220	2497	
Geology and Meteorology	Dr. A. Lee Meyerson	C-323A	2064	
Mathematics and Computer Science	Dr. Dorothy Goldberg	C-232	2104	
Medical Record Administration	Prof. Louise Weber	W302B	3010	
Nursing	Dr. Virginia M. Fitzsimons	K-4	2608	
Occupational Therapy	Prof. Paula Kramer	W311	2590	
Physical Therapy	Dr. Katherine LeGuin	W-307	2227	

## GRADUATE STUDIES

The Division of Advanced Studies offers programs and courses of advanced level and specialization which lead to the degree of Master of Arts, Master of Arts in Liberal Studies, Master of Public Administration, Professional Diploma, particular types of certification or personal enrichment.

A separate catalog, published for the Division and available on request, contains all information on graduate admissions and fees and describes in detail the program and options in the following areas:

Audiology and  
Communication Sciences  
Behavioral Science  
Early Childhood Education  
Educational Administration  
Educational Psychology  
Instruction, Curriculum and Administration  
including: Bilingual/Bicultural Education  
Teaching English as a Second Language  
Fine Arts Education  
Industrial Studies  
Learning Disabilities Teacher Consultant  
Liberal Studies  
Management System Analysis  
Mathematics Education  
Public Administration  
Reading Specialist  
School Psychology  
Special Education  
Speech Pathology  
Counselor Education  
Teacher of Reading

Students who apply for admission to graduate study at Kean College are also eligible to apply for a graduate assistantship which provides a stipend for a 15-hour work week and a waiver of tuition and all fees for 18 to 24 credits for an academic year.

## POST BACCALAUREATE MAJOR PROGRAM

The Post Baccalaureate Major Program (PBM) is designed to permit individuals who already hold the bachelor's degree, from Kean College or another institution of higher education, to earn credits equivalent to a major in a second discipline. Upon meeting all PBM requirements, which vary from discipline to discipline, the student is granted a certificate indicating successful completion of the program.

Further information on the PBM program is available from the College Admissions Office. Filing date for all applications is June 1.

## CERTIFICATION PROGRAM

The Certification Program is designed to permit individuals who already hold the bachelor's degree to secure either an initial teaching certificate or additional teaching certificates. The following certificates are offered: nursery school, elementary, art, English, reading, Spanish, health and physical education, handicapped, mathematics, music, biological sciences, physical science, earth science, social studies, deaf or hard of hearing, industrial education, bilingual/bicultural education, teaching English as a second language and speech correction.

The Certification Program also offers programs for students with high school diplomas or equivalencies for group nursery school teacher qualification and for industrial studies certification on the basis of work experience.

Further information is available from the Teaching Performance and Certification Center in Willis Hall.

## EXCEPTIONAL EDUCATIONAL OPPORTUNITY PROGRAM

Educationally underprepared students whose potential for success in college cannot be identified by conventional criteria may apply for admission to Kean through the Exceptional Educational Opportunities (EEO) Program. Intensive support services are provided with the goal of academic and personal adjustment to the college experience.

As an introduction and orientation to the College, EEO students attend a special summer session immediately prior to the fall semester of the freshman year. The summer session is also designed to strengthen writing skills, reading and study skills, science concepts and mathematical concepts based on individual assessment of academic needs.

Supportive services in tutoring, counseling, academic advisement and financial aid begin with the summer program and continue as EEO students progress through their regular course of studies.

Students admitted to the EEO Program may apply for the Educational Opportunity Fund (EOF) grant if financially eligible.

## INTERNATIONAL STUDIES

Kean College offers overseas studies program to eligible matriculated students in cooperation with the New Jersey State College Council for International Programs of the American Association of State Colleges and Universities.

Students studying abroad in programs sponsored by the College are instructed by English-speaking faculty members of the host institution. The study abroad program is the equivalent of a semester's work. Upon successful completion of the program, students are awarded 15-16 credits which may be applied to fulfill general education, major or elective requirements. Since participants are Kean College students, they are entitled to all forms of financial assistance.

The College also offers a variety of travel-study opportunities during the midyear study period in January and during the summer session. Applications and further information on College semester abroad and travel-study programs are available from the Coordinator of International Studies in the special programs office, second-floor Administration Building. Mrs. Ethel Madsen (527-2163) is the coordinator.

## COOPERATIVE EDUCATION

Cooperative Education is an instructional process of off-campus activity which recognizes the importance of experiential learning. Students, so enrolled, may earn academic credit for completion of course requirements and learning objectives while on approved work experience relating to their major programs of study. Through a coordinated effort between a public or private enterprise and an academic department of the College, job placement is provided, the supervision for which is shared by both the employer and a faculty member. Work and compensation arrangements vary with each position. Cooperative Education courses are found in this catalog under the offerings of specific academic departments. Participation is restricted to approved undergraduate junior or senior majors of the academic department that sponsors the course.

## EXTERNAL EDUCATION

External Education courses are designed for undergraduate students whose family and/or work responsibilities make it difficult for them to attend regular weekly classes. External courses are adapted for individualized study and employ a variety of teaching-learning strategies. Students enrolled in these courses are responsible for adherence to individual course requirements and for completion of course assignments outside a traditional setting.

Students interested in external courses must first receive approved external status prior to registration. Applications for External Student status are available in the Evening Office, the Offices of the Academic Deans and in the Office of Academic Advisement. A student with approved external status may take a maximum of two external courses per semester. Full-time undergraduates, under exceptional circumstances, may petition to enroll in one external course as part of an approved academic workload.

## OFFICE OF AFFIRMATIVE ACTION

As an affirmative action/equal employment opportunity institution, it is the policy of the College that in all matters concerning the recruitment, selection, and admission of students, and in all matters relating to employment with, or employment sponsored by, the College, no person shall be discriminated against for reason of race, creed, sex, national origin, religion, political affiliation or handicapping conditions. Inquiries about compliance in these areas may be directed to the College's Affirmative Action Officer, (201) 527-2244.

This policy is in compliance with federal regulations issued under Title VI, Title VII, Civil Rights Act of 1964; Executive Order 11246, as Amended; Title IX, Education Amendments of 1972; Section 504, Rehabilitation Act of 1973, as Amended; and the Veterans Assistance Act of 1972, as Amended.

## INSTRUCTIONAL RESOURCE CENTER

The Instructional Resource Center (IRC) provides a variety of non-print materials, electronic and conventional audio-visual equipment, and comprehensive media services, all of which are supportive of the academic programs of the College. The non-print instructional materials collection, which includes films, filmstrips, slides, audiotapes, media kits, videotapes, and records, numbers approximately 5,000 titles. All available materials have been catalogued and appear in a card file on the main floor of the Center. All titles are interfiled in the catalog card file of the College Library as well. These non-print materials may be utilized within the IRC carrel and preview area, which has been equipped for listening and viewing activities. IRC is located on the second floor of Hutchinson Hall.

## CONSORTIUM OF EAST JERSEY

The Consortium of East Jersey is a cooperative arrangement of three institutions of higher education—Kean College of New Jersey, Seton Hall University and Union County College.

Its major objective is to provide greater service through the sharing of the combined resources of its members, all of which are situated within about 20 miles of each other making joint use of facilities feasible.

Under the auspices of the Consortium students may register for courses offered by member schools and make use of the holdings of all three libraries. Exchange of faculty, joint course sponsorship, and coordinated scheduling of student activities are other cooperative activities supported by the Consortium.

**Cross Registration** Regularly enrolled full-time undergraduate students of Kean College may register for credit in selected courses offered by other Consortium schools during regular fall and spring semesters without additional tuition charge. Details and applications are available in the Office of Academic and Career Planning and Placement at Kean College.

**U.S. Army ROTC** Full-time undergraduate students at Kean College may register for U.S. Army ROTC at Seton Hall University in South Orange. Successful completion of this option leads to a commission as a Second Lieutenant in the United States Army. Details are available in the Office of Academic and Career Planning and Placement at Kean.

**U.S. Air Force ROTC** Through an agreement among Kean College of New Jersey, the United States Air Force, and New Jersey Institute of Technology in Newark, full-time undergraduate students may pursue in Aerospace Studies Option (U.S. Air Force ROTC). Details are available in the Office of Academic and Career Planning and Placement at Kean.

## LIBRARY SERVICES

The Nancy Thompson Library is a comprehensive learning center holding more than 265,000 volumes including bound periodicals and 1,200 periodical subscriptions. Several special collections include rare books and other printed materials: the New Jersey collection; the papers of Congresswoman Florence P. Dwyer (M.C. 1956-72); and the institutional archives, containing catalogued documents relating to the 133-year history of the College. The library has been designated by Congress as a depository for selected United States Government documents; it also serves as a regional depository for selected New Jersey State publications.

Rapid bibliographic retrieval capability is available through on-line service from several computerized national data bases. Kean College participates in an interlibrary loan system, through which books and other materials not available in our Library may be borrowed.

The holdings of all state colleges are available to registered Kean students through special borrowing privileges.

All new students should come to the Circulation/Reserve Desk located on the first floor of the library to obtain a library card. Please bring proof of registration.

The director of the library, Ms. Barbara Simpson, and members of the Library staff cordially invite all students to secure a library card as soon as possible. Materials that describe the various collections and the range of services offered by the Library will be provided at the Circulation/Reserve Desk, and staff members will be available to help freshmen begin to make the Nancy Thompson Library a valuable learning resource and benefit from the services provided.

## SUMMER SESSION

Each summer the College offers a comprehensive schedule of studies on both the undergraduate and graduate levels, including regular and non-traditional courses, workshops and institutes, and a variety of international study tours. All of the College's regular administrative support services and facilities are available during the summer term of study. A separate bulletin is published and is available on request from the Office of Summer Session.

# Student Activities and Services

The program of student activities and services is planned to provide the means for personal development and a natural blend of living and learning at Kean. Students may draw on the many resources of the campus and pursue, quite individually, that which may enlarge their world. Inquiry, dialogue and diversity are encouraged. Opportunities are extensive for participation in clubs and publications, athletic, social and cultural activities, student government and college governance.

Faculty, administrators and students work together on many aspects of college life. They operate under a bill of rights and responsibilities, mutually conceived and accepted. Supportive student services under the auspices of the Office of the Vice-President for Student Services are available for personal counseling and guidance, housing, health care, financial aid, athletics, recreation, student activities and special student services. The Student Handbook, published yearly, provides a guide to all activities, services and personnel that contribute to the special quality of student life at Kean.

## THE STUDENT CENTERS

The complex of student activities facilities, the College Center and the neighboring Student Activities Building, compose the hub of college life and provide the informal and friendly atmosphere in which students and faculty can mingle, relax and conduct business. The attraction may be coffee, refreshments in the Kean College Pub, a light lunch, a special scheduled program or an organization meeting.

The College Center provides a lounge, the Kean College Pub, the professional student activities offices, the offices of Student Organization and student publications, the Little Theatre, the College Cafeteria, the Snack Bar, the Information Center, the Communication Help Center and the candy store.

The Student Activities Building houses the Book Store, Health Services, the Office of Special Student Services, the Campus Bank, the Counseling Center, the Browsing Room, and the Payroll, Personnel Office.

Downs Hall provides cafeteria/dining facilities and meeting rooms to handle activities ranging from a small group gathering to a major conference experience.

## EAST CAMPUS

The East Campus is a student life facility purchased in 1981 for \$4 million following its endorsement by the Kean College student body. Each student at Kean pays a per credit dedicated student fee, which is applied to the purchase and operation costs of the East Campus.

Located approximately one-quarter mile from the main campus and encompassing 28.5 acres of land, the East Campus contains

12 tennis courts, a one quarter mile track, five playing fields, two gymnasiums, a swimming pool, a 400 seat theatre, a library, a number of classrooms, meeting rooms, the Alumni House, as well as student group college programs and administrative offices.

For further information concerning the East Campus please call—527-3017.

## STUDENT SERVICES

The Division of Student Services includes the offices of: Health Services; Counseling; Special Student Services; Financial Aid; Intramural and Recreational Sports; Athletics; Housing; and Student Activities. Programs of special interest include: the Freshman Assistance Program wherein a cadre of trained upperclass students serve as "buddies" or pals to entering students; the annual Campus Awareness Festival coordinated by the Office of Student Activities (designed to introduce students to one another and to a wide range of social and cultural organizations); and the individualized needs assessments provided by the Office of Special Student Services for entering students with physical disabilities.

The Vice President of Student Services, Patrick Ippolito, the Associate Dean, Janice M. Murray and Assistant Dean of Students, Jose A. Quiles, invite you to learn about these services and to participate in those activities that interest you. They are located in T-122, Ext. 2190.

## OFFICE OF SPECIAL STUDENT SERVICES

Special Student Services coordinates a variety of educational services for international and handicapped students at Kean College. Students with permanent or temporary disabilities can also be helped by supportive educational resources available through the Office of Special Services. International and handicapped students are encouraged to make an appointment with the coordinator for individual needs assessment at Student Activities Building, Mon.-Fri., 9:00 a.m.-5:00 p.m., 527-2015.

## STUDENT ORGANIZATION

Every full-time undergraduate student is a member of Student Organization. Elected representatives from each class and officers elected by the student body as a whole comprise the Student Council which governs the organization, meets regularly and takes action on issues of student concern. Student Org. sponsors a number of projects including a leadership development program and over thirty-five funded groups and college services.

The College Center Board is a standing committee of Student Organization, initiating

cultural, recreational and social programs and related activities. This is a cooperative venture. It is shared by the professional student activities staff which is prepared to advise and assist and which endeavors, wherever possible, to enable innovations to take place. The office is located in the College Center 128, Mon.-Fri., 8:30 a.m.-5:00 p.m., 527-2346.

## THE COUNCIL FOR PART-TIME STUDENTS

The Council for Part-Time Students is a representative student body organized to promote the interests and concerns of all part-time students and to strengthen their identity with the College and with each other. Some Council for Part-Time Students activities include funding approximately 27 student groups, Cultural Arts Program Board, Committee of the Faculty Senate. CPTS also funds six part-time student scholarships. The office is located in CC-113. 527-2228. 12:00-8:00 Mon.-Thurs.

## CLUBS AND ORGANIZATIONS

New groups have formed over the years as students have sought companions in the pursuit of special interests. There are clubs which cater to politics, religion, the human concern, sports, social events, recreation, and the cultural arts.

There are both locally and nationally affiliated fraternities and sororities which serve a social function, engage in charitable work and are concerned with scholarship, character building and service to the College. In addition, there is a national service group for college and university men and women whose cardinal principles are leadership, friendship and service. There is also a statewide association of veterans in New Jersey colleges which exists to familiarize veterans with scholastic life and to discuss current and pending legislation affecting veterans. Policies and procedures regarding club information and recognition can be obtained from the Office of Student Activities.

## STUDENT PUBLICATIONS

There are a number of student publications running the gamut of form and opinion.

**Independent A** weekly newspaper, *Independent* reports news items on campus, local, state and national levels and is a platform for student opinion. CC115/119

**Times A** monthly newsletter that serves as the voice of part-time students. CC113

**Grub Street Writer A** yearly literary review that brings together the creative prose, poetry and art work of Kean students. W-402A

**Memorabilia** The yearbook, *Memorabilia*

presents a gallery of graduating seniors together with the faculty and administration of the College. In addition it provides a retrospective in words and pictures of the outstanding events of the year. CC120

## STUDENT ACTIVITIES

The Office of Student Activities located in the College Center building serves as the developer, coordinator, and clearing house for the cultural programs of the College.

The office has direct responsibility for the development of student clubs. Interested groups may apply for college recognition and subsequently receive a variety of campus privileges. Policies and procedures regarding both the formation of a club and its rights and responsibilities are defined in official documents and memoranda distributed by the office.

## CULTURAL PROGRAM

Diverse, exciting cultural programs are offered throughout the year at Kean. Numerous concerts, lectures, plays, films and dance programs are scheduled to enhance the educational experience.

These events are sponsored by various programming committees comprised of students, staff and faculty. The Cultural Arts Program Board is responsible for scheduling major national and international dance and drama events such as *Princeton Ballet* and *New Jersey Ballet Company*, *National Theatre of the Deaf* and *The Pirates of Penzance*. Bus Trips to museums, Broadway plays and Lincoln Center are scheduled throughout the year.

A diverse classical and lecture series is also offered. Distinguished guests who have been part of the Townsend Lecture Series were Alex Haley, Kurt Vonnegut, Jr. and Nikki Giovanni. Classical artists who have appeared were *Panocha String Quartet*, *The Arden Trio* and *Nadja Salerno*, violinist.

Pop concerts are brought to Kean by the student coordinated College Center Board. Among the featured performers who have graced Kean's stage are Cyndi Lauper, Hooters, Marshall Tucker and Pat Metheny.

Kean Dance Theatre and Speech/Theatre/Media sponsor student productions each semester.

## RECREATION

Recreation is programmed year-round for the entire Kean community. It covers many interest areas, fulfilling needs for vigorous exercise and competition, for light activity and relaxation.

The numerous tennis courts, the swimming pool, the basketball courts and gymnasiums are open at special hours for students, faculty and staff. Different clubs, intramural sports

and game room activities go on all over the campus much of the time. Particular emphasis is placed on making extended recreation available to the student residents of the College Apartments. The Office of Campus Recreation coordinates the programming and use of all facilities connected with recreation and may be contacted for further information.

## ATHLETICS

Kean College sponsors 16 varsity sports in intercollegiate competition. It retains Division III membership in the National Collegiate Athletic Association, Eastern College Athletic Conference, New Jersey Athletic Conference.

Men at Kean compete in football, soccer, basketball, wrestling, ice hockey, lacrosse, baseball, golf and tennis. Women compete in field hockey, softball, tennis, swimming, basketball, volleyball and soccer.

Further information concerning athletics at Kean and opportunity to participate may be obtained from the Director of Athletics.

## INTRAMURAL-RECREATIONAL SPORTS

The Department of Intramural-Recreational Sports offers a comprehensive leisure services program including: (1) intramural sports, (2) sports clubs, (3) informal recreation, and (4) special events. All students are eligible and encouraged to participate in any of the offered activities.

The Intramural Sports program includes individual, dual and team competition in a variety of events. All sports clubs are of either an instructional or competitive nature. Unless otherwise specified, sports clubs are co-ed and open to the entire college community. In general, there is no fee for instruction or use of equipment. In some instances club members may be required to pay a special testing fee if a course results in a particular certification.

The recreational facilities available to students include: (1) gymnasias, (2) exercise rooms, (3) tennis courts and (4) swimming pools. The hours for recreational use of these facilities are established on a semester basis. Copies of the informal recreation hours can be picked up in the Office of Department of Intramural-Recreational Sports. Additionally, a complete schedule of all intramural sports and sports clubs is published each semester, and can be picked up in the Department's office.

All program activities are publicized in the *Independent* and via notices periodically circulated through the campus.

## COUNSELING CENTER

The Counseling Services provide assistance, without charge, regarding personal problems of an academic, vocational, or emotional nature for all students, faculty and staff at Kean College of New Jersey. Consultation with a professional counselor is voluntary and all counseling interviews are treated in a confidential manner. Initial appointments are arranged promptly in the counseling office and may be extended to include several regular individual interviews. Vocational interest and psychological testing are provided. Emergency and referral services are also available.

The counseling staff attempts to assist the student in improving interpersonal and social relationships, to set and achieve appropriate vocational goals and to increase personal satisfaction and self-worth. Group counseling is also available.

The Counseling Center is located in the Student Activities Building, Room S.A. 126. It is open from September through August, 10:00 a.m. until 5:00 p.m. Appointments may be made in advance.

## HEALTH SERVICES

The College Health Service, located in the Student Activities Building provides first aid and emergency treatment; short-term medical and psychiatric treatment; psychiatric consultation; health information and referral; allergy immunizations for resident students; medical counseling for a variety of health problems; leaves of absence for medical reasons; intercollegiate sports clearance; vision and hearing screening at students' request.

There is no cost to students for service given by College medical personnel. Students are required to pay for all expenses for laboratory testing in the Health Services plus written prescriptions given by college or outside physicians, treatment administered by private physicians, local hospitals and other health agencies. Health insurance is compulsory for all resident students and is highly recommended to all commuting students as well. A college group health plan may be elected at nominal fee prior to each semester. The Health Services information about student health insurance. See "Student Health Insurance" in the Fees and Expenses section of this catalog.

Students requiring special services due to temporary or permanent physical handicaps may apply to Health Services for elevator keys and special parking permits. Ramps are situated at the entrance to all buildings to accommodate students confined to wheelchairs. In addition, students are encouraged to register with the Office of Special Services located in the same building.



## FINANCIAL AID

Detailed information on scholarships, grants, loans and part-time employment opportunities may be found in the Financial Aid section of the catalog.

## HOUSING

**College Apartments** Kean College's mid-rise apartment complex features 244 two-bedroom apartments, each with private bath and modern science kitchen facilities. Each apartment is attractively furnished, completely carpeted and centrally air conditioned. Separate television hookups and telephone service are available. Laundry facilities are also included on each floor. The apartment complex provides accommodations for approximately 1,000 men and women. Several two-bedroom units on the first floor are available specifically for handicapped students.

**Traditional Residence Halls** A residential experience designed for, and limited to Freshmen. Most freshmen are assigned to traditional style housing although some spaces are available to freshmen in the apartments. Every room is attractively furnished and each student has a bed, dresser, closet, desk with bookshelves, desk lamp, lounge and desk chair. Connecting each room is a bathroom facility, laundry facilities, lounges and a study are available on every floor.

No cooking is allowed in the traditional residence halls. Residents are required to purchase a full meal plan.

The residents are represented by a governing association comprised of all residents. Elected officers in consultation with the Housing staff are concerned with all areas of student living.

Campus facilities are open for extended use by the resident students including Library, Health Services, Game Room, Gymnasiums, Pub and Snack Bar. Also, a full calendar of social and cultural events, theater, performing arts, movies and off-campus activities is planned each year. Campus Van Shopping Services is provided free of charge for all resident students. This service allows resident students access to the surrounding shopping centers. Students are advised to contact the Housing Office for housing costs and other information, Whiteman Hall, 527-2114.

**Off-Campus Housing** Any full-time student may register for off-campus housing with the Housing Office which maintains a listing service and will guide students in locating housing facilities in the community.

## CAREER PLANNING AND PLACEMENT

The Office of Career Planning and Placement provides a confidential career counseling and placement service for undergraduates, seniors and alumni. Seniors are assisted in locating suitable positions in teaching, industry and government through on-campus interviews and direct referrals. In addition, the office assists students in the techniques of securing a job—the proper conduct of interviews, the writing of applications, the preparation of qualification records, effective job hunting strategies and career awareness seminars.

The office maintains a comprehensive folder of personal data and references which, with the permission of the student or alumnus, is sent to all interested employers and is located at the East Campus.

## DAY CARE CENTER

The Department of Early Childhood Education maintains and supervises a center for the care and education of children, 2-5 years of age, while their parent(s) attend classes. Children enrolled in the center attend on a regular schedule. The center is open Monday through Friday, 7:45 a.m. to 4:30 p.m.

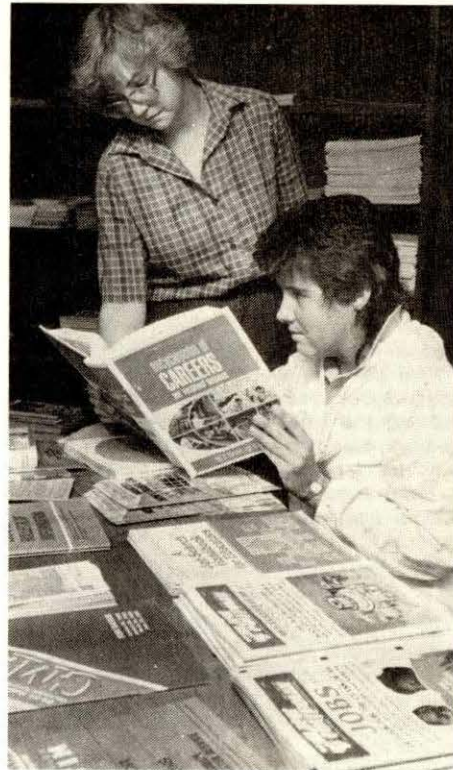
Evening care is offered from 4:40 p.m. to 8:00 p.m. for children 3-10 years of age. Supervision, creative recreation and homework help are provided Monday through Thursday.

Students majoring in Early Childhood Education take their junior field practicum in the center. In addition, graduate assistants who are certified Early Childhood Education teachers teach there. The Financial Aid Office places a number of student aides in the center. Various departments of the College use the center to observe young children's growth, development and learning. Further information may be obtained by calling the director, 527-2075. The Center is located at Campus School North—Room 110.

## INSTITUTE OF CHILD STUDY

The Institute of Child Study is a clinical complex that encompasses several clinics and provides training facilities for various academic programs of the College. The Institute also provides services to the community at minimal costs in the areas of learning problems, reading disabilities, speech and hearing impairments, psychological and medical evaluations and comprehensive evaluations of the child study team type. The Institute also sponsors parenting groups, interdisciplinary workshops and mentally retarded adult groups, and has been the recipient of various state and federal grants.

The Speech and Hearing Clinic; Stuttering, Tongue Thrust and Cleft Palate Clinics; Learning Clinic; Psychological Clinic; and Reading Clinic are part of the Institute. Academic undergraduate and graduate programs enriched by the various clinics include speech correction, audiology, learning disabilities, reading, school psychology, student personnel/counseling, occupational therapy, nursing and social work. Class for students with communication handicaps are offered on a contractual basis with area school districts. These classes also are used as practicum settings for several teacher education programs.



## SPECIAL PROGRAMS

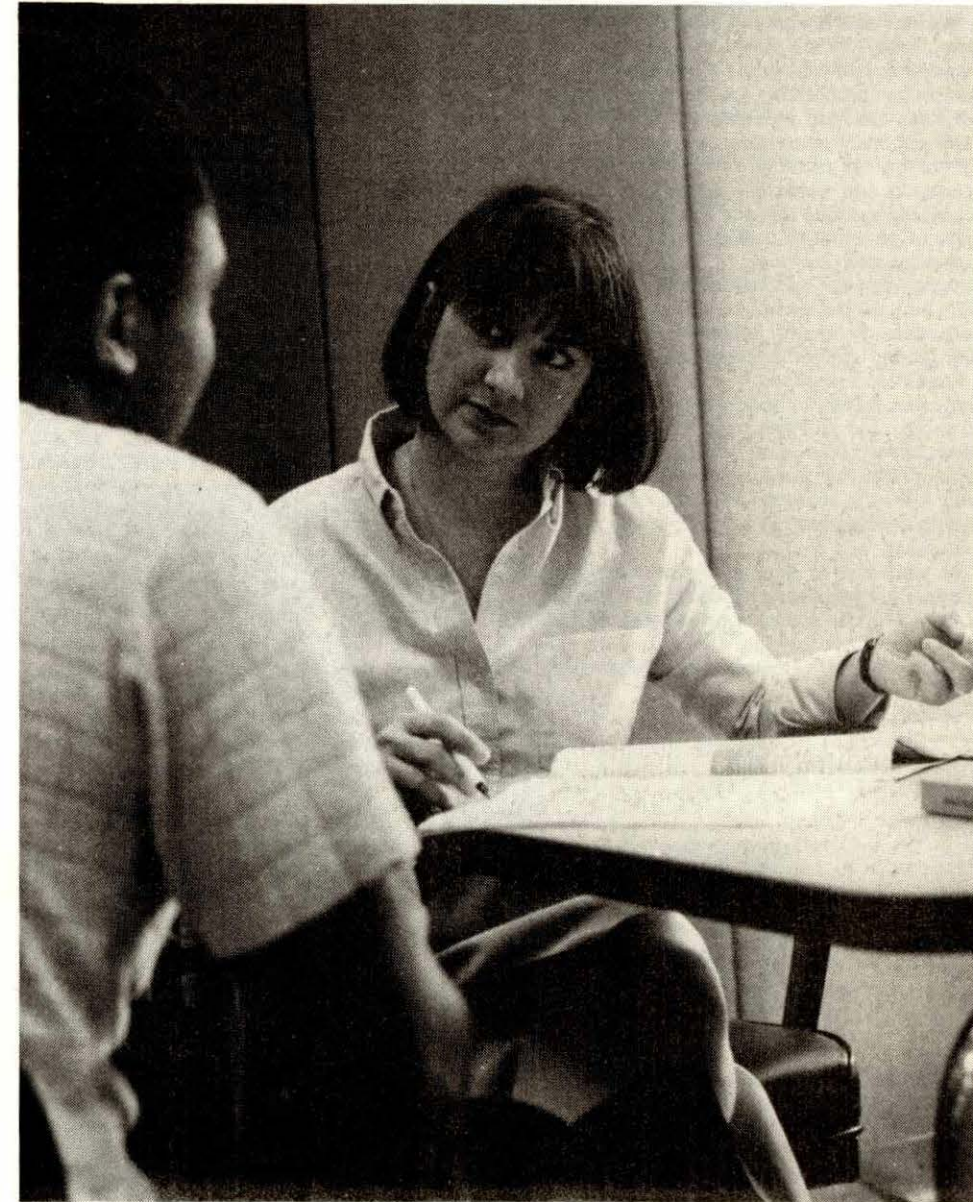
The following programs have been established to respond to particular needs of community, business and industry, professional groups, and governmental agencies, as well as the needs of individuals.

**Adult Advisory Services** provides career and educational counseling and resource information about employment and education. Workshops and conferences are offered in response to these and other adult needs. The Office of Adult Advisory Services administers EPIC (Entry Program Into College), a program for adults (25 years of age and older) who wish to enter Kean College. EPIC candidates are permitted to enter as pre-matriculated students and may complete thirty credits before applying for matriculated status. Advisement and counseling geared to the specific needs of the adult population are available. Orientation sessions are held each semester.

**Center for Continuing Professional Education** Programs are developed at the request of professional organizations, training personnel and human service directors and individuals, and are carried out through on-campus non-credit courses, workshops and conferences. They are designed to provide professional development which may lead to certificates or Continuing Education Units (CEUs).

**Center for Corporate Education** was established to help business and industry meet their needs in an environment of rapidly changing human relations and technology. It coordinates on-site and on-campus courses designed to meet the needs of companies of all sizes. These courses may range from a few selected offerings to a complete degree program. Instructors include qualified people now working in business and industry as well as members of the Kean College faculty.

The **Office of Community Services** serves as a liaison between the College and the community and coordinates the use of college facilities and resources by non-profit community groups. This office also works with groups in planning programs that prove beneficial to the community and to the College. One of these is the Center for Senior Citizens which provides cultural and social programs and tuition-free registration in Kean College courses for older adults (age 65 and older).



# Admissions

## ADMISSIONS

Applicants are admitted to Kean College of New Jersey on the basis of academic and personal qualifications. The recruitment and admissions procedures are designed to enroll the best qualified students for the College. Each applicant is considered carefully in the light of his/her secondary school record, both academic and personal, performance on a scholastic aptitude test and the College's estimate of potential as a student and as a college-educated member of society. Special opportunities for admissions are made possible through the Exceptional Educational Opportunities Program, designed for students with limited academic preparation.

Freshmen are generally enrolled for the fall semester; however, spring admission is also possible. *The College expects that all students offered admission will register for study to begin the fall or spring semester immediately following acceptance. Should this not be possible, reapplication at a later date will be necessary.*

All procedures for application and admission are published in detail in a special bulletin which is available on request through the Office of Admissions. All prospective students are urged to contact the College as follows:

Director of Admissions  
Kean College of New Jersey  
Union, New Jersey 07083  
Tel. (201) 527-2195

## TRANSFER

Applicants for transfer may seek admission to the fall or spring semester. A cumulative average of no less than 2.0 (C) along with 15 completed semester hours of transferable credit is required for consideration. Students who have earned fewer than 15 must submit a high school transcript and SAT scores.

Admission is based on the quality of the candidate's previous college work and the availability of space. The approval of the department in which the student will major may also be required.

Students may be accepted to the College by the Admissions Office and are subsequently required to obtain departmental approval for a specific major or program.

## EPIC PROGRAM

This is a special program designed to facilitate the entry or re-entry into higher education of mature students who have been separated from formal schooling for a number of years. In addition to regular support services, special advisement and counseling is provided by the Adult Advisory Center.

## FOREIGN STUDENTS

Students who are not citizens or permanent residents of the United States and who do not reside in this country may apply for admission to Kean College. All foreign students applying as freshmen are requested to submit results of the Scholastic Aptitude Test of the College Entrance Examination Board, a statement of complete financial support and certified translated copies of all academic credentials. The Test of English as a Foreign Language (T.O.E.F.L.) of the College Entrance Examination Board is required of those for whom English is not their native language.

Application for admission as a foreign student must be filed in the Admissions Office not later than April 1.

Foreign students (F-1) will be considered for Fall (September) admission only.

## ADMISSION OF VETERANS

Veterans will be permitted to file applications after the deadline, provided the date of discharge occurred no longer than two months prior to the date of application. Ex-servicemen will be expected to meet all other admissions criteria. Applications must be received by the Admissions Office within 30 days before the beginning of the semester for which the candidate wishes to enroll.

# Fees

## FEES

Tuition, fees and expenses are established by the New Jersey Board of Higher Education and are subject to change by the Board. Payment is made according to the following schedule with checks drawn to Kean College of New Jersey.

### TUITION

Tuition rates are published several times during the year in the registration bulletins. Please consult the bulletin appropriate to each academic semester for all information.

New Jersey Resident—

Per semester hour \$37.00  
Non-Resident—Per semester hour \$57.00

### Fees (all fees subject to change)

**Admissions** \$10.00  
Required of each applicant. non-refundable.

**Acceptance Deposit** \$50.00  
(non-refundable)

Required of full-time students accepted for admission who desire to reserve their place at the College. This deposit will serve as a credit toward tuition charges.

**General Service Fee** \$3.00  
Per semester hour

**Student Activity: Full-time Student** \$2.25  
Per semester hour

**Student Activity: Part-time Student** \$1.25  
Per semester hour

**Student Activity: Summer Session** \$2.25  
Per semester hour

**Athletic Fee** \$1.25  
Per semester hour. Charged to full-time students only.

**Student Life Facility Fee** \$3.00  
Per semester hour

**Late Registration (non-refundable)** \$15.00  
A charge placed on students who register on the date published as late registration and thereafter.

**Late Payment** \$15.00  
A charge for payments made after the due date as established by the Business Office.

**Student Teaching** \$60.00  
Charged in addition to tuition. The fee is non-refundable and is assessed when student teaching assignments are made.

**Teaching Certificate** \$30.00

Required of all candidates in each area of certification. It is due with remittance of Student Teaching fee.

**Campus Parking: Full-time Student** \$10.00

Covers the academic year. All student vehicles are to be registered with the Parking Office.

**Campus Parking: Part-time Student** \$4.00  
Covers both fall and spring semesters.

**Campus Parking: Summer Session** \$4.00

### College Apartments

The College Board of Trustees establishes fees for the college apartments on a yearly basis. Contracts are based on nine month or twelve month occupancy and on two person and four person capacity. Please contact the Housing Office for specific information.

**Student Health Insurance** \$60.00

This is a current annual premium, included in the fall semester billing. The College's group insurance plan for medical reimbursement affords protection on a yearly basis from September 1 to August 31. Compensable items include hospital care, surgery and limited physicians' fees. Students may obtain insurance beginning with the spring semester on a pro-rated basis through the insurance company directly. Claims for benefits are handled through the College's Health Office.

**Transcripts** \$1.00 each  
Obtained through the Office of the Registrar.

### Books

Each student buys his/her own books, which may be secured from the College Book Store. Books and materials for the first year may cost about \$300, except for industrial education majors who purchase certain items which will be used throughout the four years for an additional cost of about \$300.

### Refund

Students who withdraw from the College or who are granted a leave of absence may be granted a refund of tuition and certain other fees on the following basis:

Withdrawal by end of add-drop period or two weeks into the semester, whichever is less	100%
Withdrawal within first third of semester	50%
No refund thereafter	



# Financial Aid

## COLLEGE-ADMINISTERED FINANCIAL AID

Kean College endeavors to make assistance available to a student in accordance with his/her financial need. Such need is determined on an individual basis and is measured as the difference between college costs and the resources of students and their parents. The Financial Aid Form is normally required as part of the application. Suggested application date is April 1st, although applications submitted after that date will be accepted and processed based on the availability of funds.

Students may secure applications and further information on all aid programs through the Financial Aid Office.

**National Direct Student Loan Program** Loans from the NDSL program are granted in amounts from \$100 to a maximum of \$2,500 for two years. Applicants must demonstrate financial need, and must be registered on at least a half-time (6 credits) basis in a program leading to a degree or certificate. Repayment of the loan on a quarterly basis begins nine months after graduation or withdrawal from college. Simple annual interest of 5 percent is charged after the six months' grace period. A minimum payment of \$30 per month is required, over a repayment period that may extend to a maximum of ten years. Upon proper application, payments may be deferred while a borrower is in graduate school, military service, Peace Corps and VISTA. A portion of the loan may be cancelled while a borrower serves in a combat zone, teaches the handicapped, or teaches the disadvantaged in certain Title I or Headstart schools.

**Supplemental Educational Opportunity Grants** Yearly grants from \$200 to \$2,000 are awarded to students who are registered on at least a half-time basis in a program leading to an undergraduate degree.

**Educational Opportunity Fund** Yearly grants from state funds of \$250 to \$1,000 are awarded to students enrolled on a full-time basis in Kean College of New Jersey's Exceptional Educational Opportunity Program and to transfers who have had an EOF award from another college. Recipients must have been New Jersey residents for at least one year and must demonstrate exceptional financial need.

**Memorial Loan Fund** Emergency loans to meet short-term needs for college expenses are available to full-time undergraduate students. Loans are repayable within the semester.

**Student Employment** The College Work-Study Program, maintained with federal funds, provides part-time and summer jobs both on campus and in off-campus agencies for matriculated students with demonstrated need who are registered on at least a half-time basis.

Within the limitations of individual financial need and employment funding, students may work an average of 20 hours per week while classes are in session or up to 40 hours during vacations and holidays.

Anyone desiring placement in the summer should complete an application before May 1. Freshmen admitted for September are eligible to work in the summer preceding their attendance.

To assist students in finding part-time work outside the College the Financial Aid Office maintains a bulletin board on which are posted jobs reported by off-campus employers. Students apply directly for openings of interest to them.

**Honor Scholarships** There are a number of undergraduate honor scholarships which the College awards each spring for use the following year. Financial need as well as other criteria is a factor in the awards. Applications, including a copy of the parents' tax return for the last taxable year, must be submitted to the Financial Aid Office no later than April 1. Upon recommendation of the Scholarship Committee, the following scholarships are awarded.

**Alumni Scholarship**—Two scholarships of \$250 each are given to members of the junior class and one scholarship of \$500 is given to a member of the freshman class by the Alumni Association. The recipients are chosen primarily on the basis of academic excellence.

**Catherine A. Blewitt Memorial Scholarship**—A scholarship of \$200 from the Newark Association of Directors and Supervisors is awarded to a junior in elementary or early childhood education, with preference given a Newark resident or a graduate of any Newark school. Criteria are rank in the upper third of the class, leadership and service.

**Guy V. Bruce Scholarship**—A scholarship is awarded to a student who has manifested dedication to the restoration and preservation of the environment.

**Edward Paul Cares Memorial Scholarship**—A \$100 scholarship given to a voice major whose speciality is classical music.

**John Edward Haffly Scholarship**—A scholarship of \$250 is awarded to a senior majoring in Special Education-Mental Retardation on the basis of scholarship and community leadership.

**Isadore and Frieda Holtz Foundation Scholarship**—A scholarship of \$500 is awarded to a sophomore or junior on the basis of good scholarship, promise, and ability.

**Evening Student Council Scholarships**—Scholarships are awarded to part-time students who have completed at least 30 hours at Kean College and who receive no other grant or scholarship aid.

**Kean College of New Jersey Staff Association Scholarship**—A scholarship of \$200 is awarded on the basis of scholarship and promise and may be awarded to a highly qualified student for two or three consecutive years.

**Lambda Alpha Sigma Scholarship**—A \$200 scholarship awarded on the basis of academic excellence to a sophomore or junior.

**Helen Longacre Memorial Scholarship**—Two scholarships of \$250 each, one designated for an evening student, are awarded to Elementary Education majors chosen on the basis of good scholarship.

**New Jersey Bell Telephone Company Scholarship**—Two scholarships of \$750 each are awarded to members of the freshman, sophomore or junior class. Recipients selected on the basis of good scholarship.

**Dr. John O'Meara Memorial Scholarship**—A \$300 scholarship is awarded to a member of the junior class who demonstrates humanitarian qualities in his or her accomplishments.

**Presidential Trust Fund Scholarship**—Two scholarships of \$400 each are awarded to outstanding freshman, sophomore or junior students.

**Steven J. Weiss Memorial Scholarship**—A scholarship of \$400 is awarded to an outstanding freshman, sophomore or junior student.

### Industrial Studies Scholarships

**Careers in Graphics Arts Scholarships**—Five \$1,000 scholarships, available for women and minorities, are designed to stimulate greater interest in the career avenues available in the graphic arts industry and to reward student excellence.

**Mechanical Contracting Scholarships**—Scholarships of \$250 are based on financial need and are available through the Mechanical Contracting Association of New Jersey. Additional scholarships are awarded by the American Society for Heating, Refrigeration and Air Conditioning Engineers and the Merit Shop Foundation, Ltd.

**Manufacturing Scholarship**—A \$500 scholarship, based on academic excellence, is available through the New Jersey Section of the American Welding Society. Membership in the student section of the AWS is assumed.

**Industrial Studies Scholarship**—A \$500 scholarship, based on financial need, is available annually through an anonymous donor. Geographic location is one of the criteria for the award.

## OUTSIDE AID

**Pell Grant Program** The Pell Grant is a federally funded program intended to provide a base to which other types of financial aid may be added according to need. The amount of individual grants depends upon federal appropriation levels as well as student and family resources. All students in a program leading to an undergraduate degree and registered on at least a half-time basis are eligible to apply. All applicants for federal and state aid programs are expected to first apply for Pell Grants. Application forms are distributed nationally through high schools and colleges. Application for a Pell Grant may be made by completing the appropriate section of a Financial Aid Form.

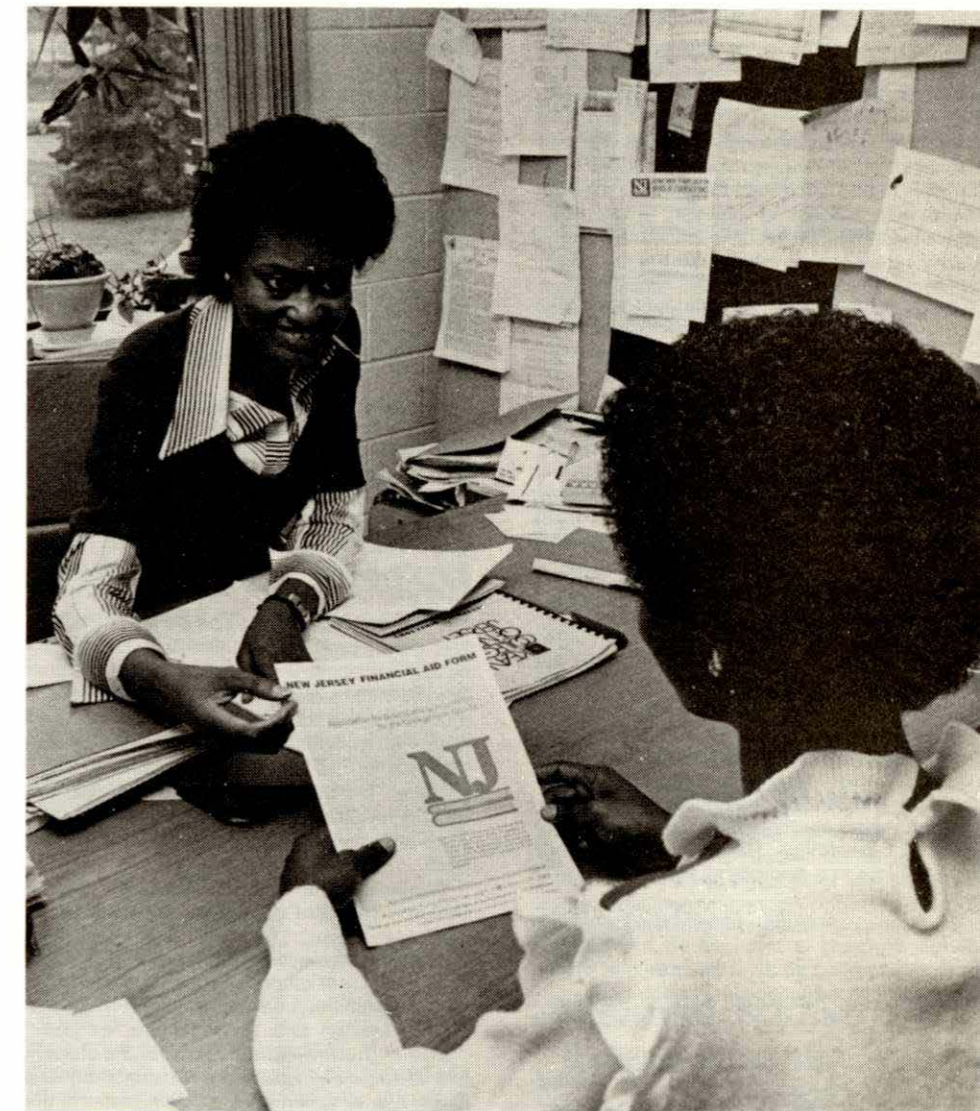
**New Jersey State Programs** The Department of Higher Education administers several aid programs for New Jersey residents who are enrolled full-time in undergraduate programs including: Tuition Aid Grants, Educational Opportunity Fund Grants and Garden State Scholarships. Application for all New Jersey Programs is made by completing the New Jersey Financial Aid Form.

**Guaranteed Student Loans** Students apply directly to lending institutions for applications for loans up to \$2,500 yearly for full-time and to \$1,250 for half-time attendance. Repayment of loan at 8% interest is deferred until 6 months after graduation or withdrawal from at least half-time enrollment in an eligible institution.

Lists of participating banks are available from the aid office or from the N.J. Higher Education Assistance Authority, CN 540, Trenton, N.J. 08625. Out-of-state students may inquire from the loan authorities in their states.

**Plus Loans** Independent graduate and undergraduate students and parents of undergraduate dependent students apply directly to lending institutions for applications for loans up to \$3,000 yearly for full-time attendance and up to \$1,500 yearly for half-time attendance. Repayment of loans at 12% interest begins within 60 days of disbursement. Lists of participating banks are available from the aid office or from the New Jersey Higher Education Assistance Authority, CN 540, Trenton, New Jersey 08625. Out of state students may inquire from the loan authorities in their states.

Only college-administered programs and the larger state programs have been described here. Applicants should investigate outside aid through high school guidance offices and agencies such as the Veterans' Administration, Rehabilitation Commission and Social Security Administration.



# Academic Standards and Procedures

Within this catalog are the academic programs, standards and procedures which apply to students matriculating at Kean College of New Jersey in the academic year for which it is published. The College will provide the student with the programs stated herein. However, the provisions of this publication are not to be regarded as an irrevocable contract between the student and Kean College of New Jersey. Degree and related academic requirements are subject to change. When such alteration takes place, it is not made retroactive unless it benefits the student and can be accommodated within the span of time normally needed for completion of degree requirements.

## COURSE OF STUDY

The course of study at Kean College is designed to bring to students the essential values of liberal education—a breadth of understanding, a depth of knowledge in chosen fields of learning and a large measure of freedom in determining what they will study and the direction of their education.

General education, the breadth component of the curriculum, provides students with experiences in major areas of learning which will acquaint them with diversity of thought, provide them with disciplined ways of knowing, and suggest the interdisciplinary and complex nature of the real world.

The component of depth, represented by the concentration or specialization requirement, enables students to acquire mastery in a subject discipline. This component is acquired through a number of professional and applied disciplines.

Generally speaking, one-third of an academic program is intended to provide opportunity to elect study in courses that promise to add to educational development.

## BACCALAUREATE DEGREE REQUIREMENTS

The baccalaureate degree is conferred by the authority of the Kean College of New Jersey Board of Trustees.

To qualify, a student must be fully matriculated in a major program of Kean College, must complete that program as described, and must earn a minimum of 124 semester hours of credit. A minimum of 32 degree credits, including one-half of the major requirements, must be earned at Kean.

No required course in any program completed at a grade lower than "C" will be counted toward the fulfillment of that requirement. Any courses initially completed at a grade of "D" and repeated according to this policy does not earn duplicate credit toward overall degree requirements.

No course can fulfill both a major and a general education requirement.

Except in the case of certain specifically approved academic programs, no more than 40 semester hours in a major field will count toward the total credits for graduation.

Fifty percent of free elective credits must be 3000-4000 level courses.

Degree requirements must be completed within 10 years from the date of matriculation. Extension of time may be considered upon written request by the student to the appropriate school dean.

A 2.0 cumulative grade point average is required for graduation. For students in teacher preparation majors, a 2.5 cumulative grade point average is required for certification.

Candidates for New Jersey teacher certification (except Special Education) must pass the National Teacher Examination (NTE) in the appropriate field.

## SELECTION OF AN ACADEMIC PROGRAM

Students must select and be admitted to a first major program no later than the spring of the sophomore year. Should the student desire to pursue a second major, the choice must be made early, for fulfilling the requirements for two majors will necessitate careful planning of the entire curriculum.

Many professional programs have extensive requirements and prerequisite course work and should be selected as early as possible.

**Declaration of Major(s)** Admission to the College does not guarantee admission to a particular major. Therefore, a student must formally apply and be accepted into a first major (major of record) through the academic department which offers the major. This procedure applies to a second major as well.

**Use of the Free Electives** After the student has arranged to fulfill general education and first major requirements, the remainder of the program may then be completed with free electives. Electives may be used to develop a second major, a minor or collateral program or to acquire certification. Two restrictions, however, apply to the use of free electives: (1) at least 50% of free electives must be in coursework on the 3000-4000 level; and (2) except in the case of certain specifically approved academic programs, no more than 40 semester hours in a major field will count toward the total credits for graduation. (For example, if a major requirement constitutes 30 s.h., then a maximum of 10 additional credits may be taken in the major field as free electives.)

**Change of Academic Program** In order to change from one major to another, the student must apply for acceptance to the new major through the department which offers it.

Whenever a major is changed, the student is responsible for completing all requirements of the new program, including specified cognate courses.

## ACADEMIC ADVISEMENT

The philosophy of the College places advisement responsibility on the total professional staff. Academic advisors in the Office of Academic and Career Planning and Placement provide initial information by relating student career goals to programs at the College and explaining the academic format of such programs. Students who have selected a major are generally advised by the major department. Students pick up their advance registration permits in their respective departments.

Undecided or undeclared undergraduates, incoming transfer students, and most freshmen are advised in the Office of Academic and Career Planning and Placement on the first floor of the Administration Building. This office also assists students in declaring a major, changing majors, evaluating credits earned in the military and in responding to all questions relative to general education and electives.

## CLASSIFICATION OF STUDENTS

Students attend the College either on a full-time or part-time basis. Status is defined as follows:

**Matriculated**—those who have been accepted for admission and are enrolled in a program leading to a degree. Matriculated student status is available on both a full-time and part-time basis. Only matriculated students can earn a degree from Kean College.

**Pre-Matriculated**—those who are following a prescribed program leading to matriculation. Pre-matriculated student status is available only on a part-time basis and for a maximum enrollment of 30 attempted credits.

**Non-Matriculated**—those who have not applied for admission and are attending on an informal (less than matriculated or pre-matriculated) basis. Individuals in this category are encouraged to apply for admission as soon as possible, as non-matriculated students cannot earn a degree from Kean College.

## CLASS STANDING

Student standing is determined by the cumulative number of credits earned and is set at the following levels:

Freshman—maximum of 28.5 earned credits  
Sophomore—minimum of 29 to maximum of 55.5 earned credits

Junior—minimum of 56 to maximum of 89.5 earned credits

Senior—minimum of 90 earned credits

## COURSE LOAD

Course load limitations apply to work taken at both Kean College and at other institutions of higher education.

**Fall and Spring Semesters Full-time students**—The normal workload is 16 credits per semester with a minimum of 12 credits and maximum of 18 credits, except as noted below for students taking developmental courses.

**Students in developmental courses**—Students required to take developmental courses may take no more than 16 credits per semester, including developmental courses, until the required developmental coursework is completed successfully.

**Part-time students**—Maximum workload of 11 credits per semester.

**Summer Session** Unless prior approval has been given by the Office of Academic Planning, no more than two courses may be taken.

**Mid-Year Study Period** No more than one course may be taken.

## TRANSFER CREDIT

Kean College of New Jersey grants transfer credit for courses successfully completed with a grade of "C" or better at accredited colleges and universities. Should a Kean College student wish to take a course at another institution, advance written approval of the Office of Academic Advisement is required. Transfer courses are not calculated in the Kean College grade-point average.

Graduates of programs formally approved by the State Board of Higher Education for transfer from New Jersey public community colleges or from Thomas A. Edison College are guaranteed admission to Kean College on a space-available basis. Those who have earned the associate of arts degree or associate degree in other articulated programs may be admitted as juniors provided that all transfer admission requirements of the College have been met. Such transfers are considered to have satisfied all General Education requirements. However, individual program requirements may make additional coursework necessary. At Kean these students will be expected to complete remaining cognate and major course requirements, to follow all major-related policies such as those stipulating a minimum level of achievement in coursework and development of areas of secondary concentration, and to fill out the remainder of their programs with free electives at the upper division level (i.e. courses listed with 3- or 4000 numbers).

In accordance with State Board of Higher Education policy, transfer applications from students who have not graduated from approved or articulated transfer programs or who have completed terminal programs in New Jersey public community colleges or Edison College are evaluated on the basis of specific coursework taken and its applicability for regular transfer credit.

**Teacher Education Credits** Regulations for teacher education and certification limit to six semester hours the amount of professional education coursework which can be transferred from the two-year college level.

## ADVANCED PLACEMENT

Kean College of New Jersey grants credit and appropriate advance standing to students who have successfully completed Advanced Placement courses in high school and who have passed the Advanced Placement examination of the College Entrance Examination Board with a grade of three or higher. Six semester hours of degree credit is granted, with the exception of the Advanced Placement course "Latin 4," for which three semester hours is granted.

Advanced Placement credit is recognized as fulfilling general education requirements where applicable and is treated as ungraded transfer credit. If the Advanced Placement course can be equated with particular courses offered in the College, degree credit equivalent to two semesters' work in those courses is granted.

## COLLEGE LEVEL EXAMINATION PROGRAM

The College Level Examination Program (CLEP) is designed to test and recognize knowledge gained by individuals in non-traditional ways. Two kinds of examinations are offered. General examinations measure achievement in four basic areas of the liberal arts (humanities, mathematics, natural sciences, and social sciences-history). Subject examinations measure achievement in specific college-level courses.

Kean College awards up to 24 credits for the general examinations when a score in the 25th percentile or better is earned. Up to 16 credits are granted for the subject examinations with scores in the 50th percentile.

Interested Kean College students should first apply to the Office of Academic and Career Planning and Placement for further information on the CLEP program. As an Open Test Center, Kean College offers CLEP examinations on the third Saturday of each month.

Applications must be received by the Special Programs Office one month prior to selected test date.

## ASSESSMENT OF EXPERIENTIAL LEARNING

Kean College recognizes that an individual can gain knowledge outside the usual structure of regular classroom meetings. Credit can be awarded for prior learning experiences if the individual can demonstrate a level of understanding equivalent to that resulting from traditional coursework and can otherwise meet the degree requirements of the College.

A matriculated student may apply for evaluation of prior learning from life experience at any point while earning the first 32 credits in residence at Kean College or within one semester of declaring a major. No credits granted for experiential learning may be included in the minimum of 32 s.h., including one-half of the major requirements, that must be earned at Kean in order to qualify for the baccalaureate degree. *Only one evaluation of prior learning will be made for the student, with all experiences being assessed at that time.*

In order to earn degree credit, experiential learning must be evaluated as corresponding to the major objectives of coursework offered by Kean College. Each academic department retains the right to determine whether or not experiential learning is appropriate to its discipline.

All experiential learning is evaluated on the basis of "credit granted" or "credit not granted." Only "credit granted" will be recorded on the student's transcript; credit attempted but not earned will not be recorded.

Students wishing to apply for assessment of experiential learning should contact the Office of Adult Advisory Services for further information.

## FRESHMAN TESTING

Following admission, but prior to registration, all entering matriculated and pre-matriculated freshmen, regardless of full-time or part-time status, are required by State Board of Higher Education policy to take the New Jersey College Basic Skills Placement Test, a series of examinations in reading, writing and mathematics. Students transferring to Kean College as freshmen also are required to take the test unless they already have done so. Basic skills testing is given at Kean College. There is no fee charged to the student.

## PROGRAMMING DESIGNED TO FACILITATE ACCESS TO HIGHER EDUCATION

A significant number of students entering colleges across the nation require additional preparation in the basic skills areas of reading, writing, and mathematics. Many others are students whose native language is not English.

Kean College is committed to providing the support that is necessary to give all its students the opportunity to participate fully in the range of academic programs available at the College.

A number of programs therefore have been designed specifically to enable entering students to improve their basic skills or their fluency in English and to increase the likelihood of success in college-level coursework.

The largest of these programs is the Developmental Studies Program and the policies governing that program are described in more detail on the pages that follow.

For students whose native language is not English, our English as a Second Language (ESL) will provide intensive instruction in English while affording an opportunity to complete at the same time college-level coursework in subject areas.

A unique program, The Spanish Speaking Program, has been designed to enable students whose native language is Spanish to take general education courses in Spanish while completing their ESL sequence. Information about the ESL and Spanish Speaking programs is provided in the following sections of this catalog.

## THE DEVELOPMENTAL STUDIES PROGRAM

Under the terms of the Developmental Studies policy, students whose scores on the New Jersey Basic Skills Test indicate a need for instruction in one or more of the basic skills areas (reading, writing, or mathematics) must register for the appropriate course(s) and must complete all required coursework as soon as possible. Each freshman receives a Letter of Advisement at registration on which is indicated his or her development studies requirements. This Letter of Advisement contains a complete statement of the Developmental Studies policy; the policy is summarized below.

Developmental studies courses are not offered for graduation credit. The courses are counted as the equivalent of three credits, however, in the determination of a student's total course load for a semester. While students are completing developmental coursework, they will not be permitted to enroll for more than 16 credits in a semester (including developmental courses).

Full-time students must enroll in their first semester in required courses in developmental studies in each area of need. Individual plans for completion of developmental studies coursework will be prepared for those students who need developmental coursework in three areas (permitting courses in reading and writing to be completed prior to enrollment in developmental mathematics) and for part-time students who are unable to enroll in all required developmental courses in their first semester.

The developmental courses that a student is required to take during his or her first semester at the College must be completed by the end of the student's first complete academic year or the student is subject to dismissal. All requirements in developmental studies must be completed by the end of the sophomore year.

Please be sure that you understand how the policy applies to your case. The Director of the Developmental Studies program, Dr. Daniel O'Day (or a member of his staff) is available in Willis Hall-402A (527-2334) to provide assistance.

## ENGLISH AS A SECOND LANGUAGE PROGRAM

The English as a Second Language (ESL) program at Kean College is designed to help students whose first language is not English to achieve a degree of competency in English that will enable them to successfully complete a baccalaureate program at the College. Students are given a placement test upon admission to the College and are placed into one of four levels of core courses. Additional skills courses also may be required at any level.

Courses in the ESL program are designated either with an ESL designation or an ENG designation. Courses with an ESL designation are not offered for graduation credit but carry institutional credit for purposes of determining total semester course load.

The three courses with an ENG designation (the core courses—ENG 1300 and ENG 1400 as well as the skills course—ENG 1403) earn credit toward the degree. Completion of ENG 1300 with a grade of P and ENG 1400 with a grade of C or better fulfills the general education equivalent of ENG 1020—Composition. The course ENG 1403 is the equivalent of the core course GE 2020 for ESL students.

Students in the ESL program receive a Letter of Advisement at registration which specifies their requirements both in the ESL program and in developmental mathematics. Any required course must be completed within two semesters, or the student is subject to dismissal. A complete statement of the ESL policy is contained on the Letter of Advisement. Students in the ESL program who have questions may see the coordinator, Professor Susan King, Willis 402A (527-3019).

## SPANISH SPEAKING PROGRAM

The commitment of Kean College to students who are native Spanish speakers is reflected in the innovative Spanish speaking program. Each semester a representative group of general education courses is offered in Spanish. Designed to be taken during the freshman and sophomore years, these courses enable Spanish-speaking students to earn credit toward the baccalaureate degree while simultaneously completing the English as a Second Language program. Students interested in information about the Spanish Speaking Program should seek help from its Director, Dr. Orlando Edreira in Hutchinson Hall, J309, or call 527-2185.

## INDEPENDENT STUDY

For the student who has demonstrated a high level of competence as determined by qualifying departmental standards, independent study provides an educational experience that cannot otherwise be accomplished through the regular course offerings of the College. No activity that can be carried out either in partial or complete fulfillment of the requirements of an existing course may be approved for investigation through independent study.

An independent study project is designed and carried out by a student under the direct supervision of a faculty member. This project may consist of, but is not limited to, a research project, analytical writing, creative writing, intensive or extensive reading, a studio or a laboratory project.

The eligible candidate for independent study should first identify an appropriate topic and faculty sponsor and then submit a proposal in accordance with guidelines established by the major department or program. Independent study courses are found in the academic department offerings.

## GRADING AND ACADEMIC STANDING

The academic standing of a student in every subject is reported at the end of each semester by a letter grade.

Credit is granted for the following:

A—Excellent  
B—Good  
C—Fair  
D—Poor  
P—Pass (Pass/Fail basis) *except for developmental courses*  
S—Satisfactory (Pass/Fail basis)  
No credit is granted for the following:  
F—Fail  
U—Fail (Pass/Fail basis)  
AF—Fail (administratively assigned)  
Inc—Incomplete Work  
W—Withdrawn (first third of semester)  
WD—Withdrawn  
AU—Audit

Student teaching is graded as "S" or "U". Credits for student teaching are not used in computing the cumulative grade-point average.

## GRADE-POINT AVERAGE

Comprehensive evaluation of the student's academic standing is indicated by grade-point average. The grade-point average is determined by dividing the total grade-points earned by the total number of semester hours attempted. The numerical equivalents for determining grade-point average follow: A-4; B-3; C-2; D-1; F-0. The cumulative average is determined only on courses taken at Kean College of New Jersey.

Omissions or errors in grade compilation should be reported to the Office of the Registrar at once. Questions regarding letter grades assigned by an instructor should be discussed directly with the instructor as soon as possible and no later than the last day of the eighth week of the subsequent major (fall or spring) semester.

**Pass/Fail** A matriculated student in good academic standing who has earned at least 30 semester hours of credit may, at any time before graduation, select a maximum of six courses from free electives to be taken on the Pass/Fail option. The Pass/Fail option is available only for free elective coursework. Courses needed to satisfy General Education requirements, cognate requirements or major program requirements must be completed according to the regular system of earned grades. Successful completion of mid-year coursework graded by Pass/Fail is counted toward the maximum of six courses allowed on the Pass/Fail option.

Coursework taken on the Pass/Fail option is graded as either "P", which represents achievement at the level of "C" or better, or "U", which indicates failure. The cumulative grade-point average is not affected by work completed on a Pass/Fail basis, nor are these credits considered when calculating academic honors.

The Pass/Fail option must be declared at the Registrar's Office and may be done through the first three weeks of classes during the fall and spring semesters and through the first week of classes during the summer session. During this period students also may change into the Pass/Fail option from a course initially enrolled in for credit or out of the Pass/Fail option and re-register for earned credit.

**Course Audit** A student who wishes to engage informally in regular College offerings may, with the permission of the instructor, audit one course per semester or term of study. Formal course requirements are not held for the auditing student, who is thereby better able to deepen knowledge in areas of thought within his or her major course of study or to broaden familiarity with disciplines beyond the major course of study. Regular tuition rates are charged for course audit.

All lecture courses may be audited; laboratory and studio courses also may be audited. Auditing status permits the students to attend class. Otherwise, the auditor does not write examinations or fulfill course requirements that regularly registered students must satisfy in order to earn academic credit. The title of the audited course is printed on the student's transcript, along with the grade symbol "AU". No academic credit is earned for audited courses.

Students who wish to audit a course must first register for the course during the regularly scheduled registration period and then declare the audit option within the first three weeks of the regular fall or spring semester or within the first week of summer session. The audit option is declared by obtaining the audit registration form at the Registrar's Office, securing the instructor's approval, and returning the form to the Registrar during the time periods stated above. During this initial period of each semester or session, students may also change into the audit option from a course first enrolled in for credit or out of the audit option and re-register for earned credit.

**Incomplete** A grade of incomplete (IN) may be reported for a student who has completed course requirements throughout the semester and then because of illness or other unusual and substantiated cause has been unable to take the final examination or to complete a limited amount of assigned work due near the end of the semester. Unsubstantiated absences from class may not be used to justify an incomplete grade.

Class attendance in the subsequent semester may not be required by the instructor as a condition for removal of the IN. If a substantial amount of work has been missed for medical or other valid reasons, the student should petition the School Dean to be withdrawn from all courses.

It is the responsibility of the student to initiate a request for a grade of incomplete by filling out the form "Conditions for an Incomplete Grade and Its Removal." The instructor of the course must receive this request prior to the submission of grades at the end of the semester. If no such request is received or if the instructor judges the request unacceptable, an appropriate grade shall be submitted based upon the student's attainment of the stated goals of the course.

It is the student's responsibility to make up the examination or other work prescribed in a contract written by the instructor as part of the form "Conditions for an Incomplete Grade and Its Removal." This contract will also indicate the final grade to be assigned if the student's unfinished work is not completed by a specific date. The prescribed time period will be no later than the last day of the eleventh week of the regular fall or spring semester immediately following the receipt of the incomplete grade. An earlier deadline may be agreed upon by the instructor and the student and in most cases it is expected that a shorter period of time will be specified in the contract for the removal of the IN.

When the student has made up the assignment(s) or taken the examination on time, the instructor forwards a change of grade form for action by the department chairperson and the School Dean. The School Dean then transmits the form to the Registrar for processing of the grade change. If the student has not completed the work according to schedule, the instructor reports as the final grade for the semester the grade recorded in the contract worked out with the student.

## STANDARDS FOR WRITTEN WORK

Students should become familiar with the College's general standards for written work. Copies of these standards are on file and available in all academic department offices and are to be followed in the preparation of all written work. Individual instructors may amplify the general standards to fit the special needs of their courses. Students are advised to check with their instructors at the beginning of the semester to determine whether general college standards are to be supplemented with individual course standards.

## COMMUNICATION OF COURSE REQUIREMENTS TO STUDENTS (CLASS SYLLABUS)

Instructors are expected to communicate to students in writing at the start of the semester essential information about the conduct of the course. The syllabus should include information about course prerequisite (if any), textbooks, objectives, and course content. All course requirements should be specified in the syllabus, including the dates of examinations, deadlines for submission of papers, and the basis for the determination of the final grade.

The course syllabus is a contract between the faculty member and the student. Changes in course requirements made after the start of the semester should also be communicated in writing to students. Students, in turn, are responsible for meeting the requirements of the course as delineated in the syllabus and for requesting clarification from the instructor on items not made clear in the syllabus. Students who experience difficulty in meeting course requirements should discuss their situation with their instructor and seek help.

## GRADE GRIEVANCES

If a student believes that he or she has not been graded fairly in a course, it is the student's right to bring forward a grade grievance, and a formal process exists for the resolution of such problems. The overall guidelines for the grade grievance process are uniform from department to department, with each department free to develop specific procedures within these guidelines. *Requests for reconsideration of a grade must be brought forward to the faculty member as soon as possible after the conclusion of the course and no later than the end of the eighth week of the next major semester.* The steps in the process are outlined below; it is understood that if a satisfactory resolution is reached at any level, the process ends. If at a given step either party is dissatisfied with the proposed resolution, the dissatisfied party may request reconsideration at the next level. Decisions by the School Dean are final.

1. The student meets with the faculty member to request information about the basis for the faculty member's decision that is at issue. If after receiving an explanation from the faculty member, the student remains dissatisfied, he or she requests reconsideration of the grade by the faculty member.

2. The student meets with the chairperson of the department to discuss the situation. The chairperson may choose to intervene and attempt to seek a resolution or he or she may refer the matter to the departmental grievance

committee and convene the committee in accordance with departmental policies.

3. The departmental grievance committee, composed of faculty and at least one student hears the grievance. The committee determines (in accordance with the prevailing practices in the department and the specifics of the particular grievance) a procedure to follow. Both the student and faculty member might be asked to submit materials in writing, or both might be extended an invitation or required to appear in person before the committee. The committee may choose to schedule these meetings so that the parties appear separately or together. Additional information may be requested by the committee as needed.

4. The grievance committee makes a determination and notifies the student and faculty member of its decision.

5. If the recommendation of the committee is not satisfactory to one or both of the parties involved or if implementation of the recommendation requires the involvement of the dean, the situation is brought to the dean for resolution; all relevant materials are forwarded to the dean's office.

## LEAVE OF ABSENCE

Students who find it necessary to leave the College temporarily either for medical reasons or for matters of personal priority may do so by requesting a leave of absence. Medical leaves are processed by the Office of Health Services; personal leaves are processed by the Counseling Center.

Students who wish to request a leave of absence after a semester has begun must do so no later than one week past mid-semester. In such cases, students are not eligible for resumption of study in the following semester unless special authorization is arranged with the Office of the Dean of Students. The ordinary length of a leave of absence is one full semester. In unusual circumstances the Dean may approve a renewal of the leave. In this case, payment of a continuing registration fee is required prior to the opening of the semester.

Official withdrawn students are not eligible for readmission for the subsequent semester unless special authorization is arranged with the Office of the Vice President for Student Affairs prior to withdrawal. Once withdrawal is completed, all applications for readmission including those approved for early re-entry must be filed in the Office of Admissions.

## READMISSION TO THE COLLEGE FOR OTHER RETURNING STUDENTS

Students who have interrupted their program of study for a period of a year or longer also must apply for readmission through the Office of Academic Advisement.

Readmission to the College does not imply or constitute readmission to a specific academic program offered by the College. A student upon readmission is subject to current college curriculum requirements. Students who have been academically dismissed or discontinued should refer to the policy on reinstatement.

## PROBATION AND DISMISSAL

**Policy for Regular Coursework** Matriculated students earning a cumulative grade-point average of less than 2.00 are subject to academic probation. A cumulative average which would place a student on academic probation for the third time makes the student subject to dismissal from the College.

All students earning a cumulative grade-point average of less than 1.6 for the first 30 semester hours or less attempted, or less than 1.8 when more than 30 hours have been attempted, are subject to dismissal. Transfer students must satisfy the required minimum standards of academic achievement according to their level of entry into Kean College.

**Policy for Developmental Coursework** Students whose basic skills test scores result in a requirement to complete developmental courses are subject to academic probation if that requirement is not fulfilled during their initial semester at Kean College. Students who do not successfully complete within one year developmental coursework required on entry are subject to dismissal.

**Notification** College regulations on academic probation and dismissal are printed on the reverse side of semester grade reports. Notification of probationary status is sent to each student whose grade-point average is below the standard required for good academic standing.

Decisions on academic dismissal are made at the end of each academic year. Students dismissed from the College are notified by a letter from the appropriate School Dean.

**Non-Academic Dismissal** When the actions of a student are judged by competent authority, using established procedure, to be detrimental to the interests of the College community, that person may be required to withdraw.

## REINSTATEMENT AFTER ACADEMIC DISMISSAL OR DISCONTINUATION

Students who have been dismissed or discontinued for academic reasons may appeal for reinstatement to the College. All appeals for reinstatement should be submitted to the director of Academic and Career Planning and Placement who serves as the designee of the School Dean in matters of academic appeal. After receipt of a recommendation from the director of Academic and Career Planning and Placement, the school dean will make a final decision on appeals for reinstatement. This decision will take one of three forms: reinstatement to good academic standing, reinstatement to probationary status or denial of appeal.

Appeals from students dismissed for academic reasons at the end of the regular college year are considered by the Committee for Academic Appeal. This committee is made up of representatives from the student body, the faculty and the administration of the College; its chairperson, the Director of Academic and Career Planning and Placement, forwards all Committee recommendations to the appropriate School Dean.

Students who have been dismissed or discontinued may not take courses at Kean College under any circumstances unless they have been officially reinstated by a School Dean.

Reinstatement to the College does not imply or constitute reinstatement to a particular academic program within the College (unless there is a specific provision to that effect in the reinstatement letter from the School Dean). A student upon reinstatement will be subject to current College curriculum requirements.

## APPLICATION FOR DEGREE

A student who has earned 90 credits and plans to complete degree requirements during the following academic year must request a degree application from the Office of the Registrar. A degree application and a complete academic transcript will be forwarded to each student who makes a request. Request forms for degree applications are included in the fall and spring semester course bulletins published and distributed prior to registration.

The application for degree must be received by the Registrar's Office no later than October 1 if the student intends to complete graduation requirements by the end of the spring semester or the summer term and no later than June 1 if the student intends to complete degree requirements by the end of the fall semester.

Students are advised to allow sufficient time between requesting an application for degree and filing the completed application by the above dates.

## AWARDING OF DEGREES

Formal commencement exercises are held each year at the close of the spring semester. Diplomas also are available in February and August for students who complete their degree requirements during the fall semester or the summer session. February and August candidates may participate in the formal June commencement exercises.

## TRANSCRIPT REQUESTS

Transcripts of academic records are obtained through the Office of the Registrar/Records. \$1.00 is charged for each transcript. All transcript request must be made in writing or by completion of forms provided in the Records Office. Official transcripts are mailed directly from the College; only unofficial transcripts will be issued directly to the student.

## ACCESS TO EDUCATION RECORDS

A student may review the contents of his/her education folder by filing a request with the Records Office. The College subscribes to all provisions of the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment). A guide to related college regulations and procedures is available through the Office of the Dean of Academic Administrative Services.

## ATTENDANCE POLICY

Attendance is *required* for freshmen and expected of all other students. Attendance is mandatory for *all* students in laboratories, studio, and certain other specified courses such as developmental studies courses, laboratory and studio courses, 1000-level English classes, and 1000 and 2000-level foreign language courses.

Under the terms of the attendance policy, attendance per se may not be a basis for grading upper classmen, but class participation may be a component of the final grade if it is so stated in the syllabus. It is the opinion of the instructor to accept or not accept late work (or to give opportunities for making up work missed because of absence).

Observance of a religious holiday is to be considered an excused absence from class. In the event that a student missed a scheduled examination or other pre-arranged assignment because of observance of a religious holiday, the student and instructor shall agree

upon an alternate date for completion of the assignment at a mutually convenient time.

## REGISTRATION

Priority in advance registration is given according to the number of credits earned toward the degree. Students who fail to avail themselves of advance registration privileges lose priority and are registered on a space available basis during in-person registration immediately prior to the beginning of each semester. Incoming freshmen and transfer students are advised on registration with materials that accompany acceptance by the College.

## COURSE NUMBERING SYSTEM

Courses carrying 1000 and 2000 numbers are lower division offerings, usually appropriate for the freshman and sophomore years of undergraduate study. Courses numbered at the 3000 and 4000 levels are upper division offerings, usually appropriate for the junior and senior years of undergraduate study.

In general, the following course numbering system is applied:

0000—developmental level, providing remediation of basic skills deficiencies, no degree credit granted.

1000—introductory level, broad-based in nature, prerequisites usually not necessary.

2000—intermediate level, the second course in a discipline, one prerequisite sometimes necessary.

3000-4000—advanced levels, providing greater depth in a more defined area of scholarship, one or more prerequisites generally necessary.

5000—graduate level.

## SENIOR/GRADUATE HONORS PROGRAM

Matriculated seniors who stand academically in the upper quarter of their class may, with the approval of the appropriate school dean, enroll in one graduate course each semester of the senior year. Tuition is charged at the regular undergraduate rate. Credit earned will count either towards completion of baccalaureate degree requirements or, with prior permission of the Office of Advanced Studies, may be applied toward a master's degree in one of the graduate programs offered by Kean College.

## ACADEMIC HONORS

**Dean's List** Superior academic achievement is recognized by nomination to the Dean's List. Appointment to the Dean's List is available to both full-time and part-time students, according to the criteria given below.

**Full-time students**—The Dean's List is announced twice a year for full-time students, at the end of each fall and spring semester. To qualify, the student must be matriculated and must have earned a semester grade-point average of 3.45 or better for at least 12 credit hours (not including courses taken on the pass/fail option). All courses completed in the semester must have been passed for earned credit.

**Part-time students**—The Dean's List is announced once a year for part-time students, at the end of each spring semester. To qualify, the student must be matriculated and must have earned a grade-point average of 3.45 or better for the regular academic year (combination of fall and spring semesters only) for at least 12 credit hours (not including courses taken on the pass/fail option). All courses completed in the regular academic year must have been passed for earned credit.

Each student awarded Dean's List honors receives a personal letter of congratulations; this academic achievement also is noted on the student's semester grade report.

**Graduation with Honors** Students graduating with a cumulative grade-point average of 3.45 or better, who have completed a minimum of 45 semester hours at Kean (excluding credits earned on a Pass/Fail basis) by the end of the first semester of their senior year 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

Honors achieved by the end of the second semester of the senior year will be included in all permanent records and, at the student's option, on the diploma as well.

**Honor Societies** Academic achievement may also be recognized by election during the junior or senior year to one of the honor societies established at Kean. The qualified candidate will receive notification of eligibility and an invitation to membership directly from the local chapter of the sponsoring honor society.

**Alpha Sigma Lambda** is a national collegiate honor society in all academic fields open to qualified part-time and evening students. The society is dedicated to the early recognition of scholarly ability and leadership qualities. (Chapter established in 1967)

**Kappa Delta Pi** is a national collegiate honor society in education open to qualified members of the junior and senior classes and to a limited number of graduate students. Its purpose is to recognize sound scholarship, worthy educational ideals, commendable personal qualities and outstanding contributions to education. (Chapter established in 1938)

**Lambda Alpha Sigma** is a College honor society in the arts and sciences curricula open to qualified members of the junior and senior classes. Its purpose is to recognize and promote outstanding scholarship. (Chapter established in 1970)

**Phi Kappa Phi** is a national collegiate honor society in all academic fields open to qualified members of the senior class, and, to a limited extent, members of the junior class and graduate students. Its purpose is to emphasize scholarship and to stimulate achievement by the prize of membership. (Chapter established in 1977)

**Departmental Honor Societies**  
Alpha Delta Mu—Social Work  
Alpha Kappa Delta—Sociology  
Alpha Kappa Psi—Management Science  
Beta Beta Beta—Biological Sciences  
Epsilon Pi Tau—Technology  
Omicron Delta Epsilon—Economics  
Phi Alpha Theta—History  
Phi Epsilon Kappa—Physical Education  
Phi Mu Alpha—Music (men)  
Pi Sigma Alpha—Political Science  
Pi Mu Epsilon—Mathematics  
Psi Chi—Psychology  
Sigma Alpha Iota—Music (women)  
Sigma Tau Delta—English  
Sigma Xi (club)—Sciences and Mathematics

## TEACHER EDUCATION PROGRAMS

Many academic programs at Kean lead to N.J. teaching certificates. The list of certificates follows. Where certificate and program title differ from each other, the academic program appears in parentheses:

Biological Science; Physical Science (Chemistry/Physics); English; Foreign Language—Spanish; Mathematics; Social Studies (Economics, History, Political Science, Sociology); Earth Science; Bilingual/Bicultural Education; English as a Second Language; Reading; Art; Elementary Education/Nursery School (Early Childhood); Physical Education; Health and Physical Education; Industrial Arts (Technology); Music; Teacher of the Handicapped; Speech Correctionist; Deaf or Hard of Hearing (Special Education and Individualized Services).

### ADMISSION

Students must be formally admitted to teacher education programs. Since criteria for admission to specific programs vary, students are urged to contact the academic department offering the program for specific information. General criteria for admission are as follows:

A cumulative grade average of 2.5 or better.  
Demonstrated competency in oral English communication (minimum grade of "C" in STM 1900 or its equivalent or formal exemption).

Demonstrated competency in written English as evidenced by a minimum grade of "C" in Eng 1020.

Demonstrated competency in mathematics as evidenced by a minimum grade of "C" in at least one college-level math course.

Satisfactory completion of an appropriate sophomore field experience.

Although students will not be formally admitted to teacher education programs until the satisfactory completion of the sophomore field experience, the programs are offered in a sequence which is best completed by starting in the freshman year.

Satisfactory scores on the New Jersey Basic Skills Test or satisfactory completion of required developmental courses in writing, reading and mathematics at Kean College.

### SPEECH COMPETENCY

All Education majors must pass a speech and language screening in order to be accepted into the program.

### RETENTION

Students will be evaluated at the end of the junior year prior to being confirmed as candidates for the instructional certificate. Students must maintain a grade point average of 2.5 or better and must show evidence of an acceptable level of teaching proficiency.

At the end of the senior year student's knowledge of behavioral and social foundations of teaching and learning and knowledge of the academic subject area will be assessed by comprehensive examination.

These admission and retention standards as well as the teacher education programs shown in this catalog are binding on freshman who began on or after September 1, 1985, and on transfer students who will begin on or after September 1, 1987.

### STATE TEACHING CERTIFICATES

Teaching certificates are granted by the State of New Jersey to students who have completed approved programs. These programs are available on the baccalaureate and post-baccalaureate level.

Students must complete all the program requirements including general education, academic sequence, behavioral and social sciences, the professional sequence and must maintain a grade point average of 2.5 or better in order to receive certification.

### FIELD EXPERIENCE AND STUDENT TEACHING

Students in teacher education programs are required to complete all field experiences and student teaching. All student teaching and field experiences are coordinated through the Teaching Performance Center. The center functions as a micro-teaching facility and as a liaison between the College and public schools in placing students in classrooms for professional field experiences. Registration with the Teaching Performance

Center for those experiences takes place in November of the year before the experience. See program descriptions for the specific course requirements.

The State requires all student interns who enter a public school to obtain a tuberculosis test and receive favorable results.

## STRUCTURE OF BACCALAUREATE DEGREE PROGRAMS

Kean College offers undergraduate programs in the liberal arts and sciences, in education, and in a growing number of professional areas. Although the various majors differ in their specific requirements, degree programs at the College share a common structure, the four basic components of which are described in the sections that follow.

### GENERAL EDUCATION

Beginning in September 1985, students entering the College as freshmen are subject to new general education requirements. Under the new requirements students must accumulate a total of 51-52 general education credits in order to qualify for graduation. This required total is divided into two parts: core requirements (18 credits) and breadth requirements (33-34 credits). Students entering teacher preparation programs must accumulate a minimum of 57 general education credits. This total includes the core requirements (18 credits) and breadth requirements (a minimum of 39 credits).

The core consists of six required courses which are designed to increase general knowledge and to strengthen intellectual skills. These courses provide a basic understanding of the traditions, events, and issues that have shaped our contemporary global civilization. In addition, these courses provide an opportunity to strengthen skills in communication, critical thinking, and quantitative reasoning. Descriptions of these six core courses are provided below.

#### ENG 1020—COMPOSITION (3)

Production to expository writing; emphasis on logic, rhetoric and critical thinking.

**Prerequisite:** Satisfactory performance on writing sections of the NJCBSPT or successful completion of development writing requirements.

#### GE 1100—EMERGENCE OF THE MODERN WORLD (3)

Origins of the major political, economic, and social systems of the 20th century; emphasis on the great transformations of the past two centuries; major global issues and crises in the late 20th century.

**Prerequisite:** Completion of all developmental reading and writing requirements.

#### GE 1200—INTELLECTUAL AND CULTURAL TRADITIONS OF WESTERN CIVILIZATION, 1450—TO THE PRESENT (3)

An introduction to major philosophic attitudes and artistic sensibilities of Western peoples beginning with the Renaissance.

**Prerequisite:** Completion of all developmental reading and writing requirements.

#### GE 2020—INQUIRY AND RESEARCH

Analysis of published research; carrying out of a research project; emphasis on communication skills.

**Prerequisite:** Eng 1020 (Composition)

#### ENG 2203—LANDMARKS OF WORLD LITERATURE

Representative readings in the literatures of the world's cultures from earliest times to the present, with emphasis on selected themes and genres.

**Prerequisite:** Eng 1020 (Composition)

#### GE 2400—SCIENCE AND TECHNOLOGY IN THE MODERN WORLD (3)

The interrelatedness of science, technology and society investigated through critical analyses of selected, modern topics using the methods of science and technology.

**Prerequisites:** One math and one science course used to satisfy general education breadth requirements.

Core requirements should be satisfied by the end of the sophomore year. Three of the core courses are 1000 level courses which are to be taken during the freshman year and three are 2000 level courses which are to be taken during the sophomore year. Completion of all developmental reading and writing requirements is a prerequisite for enrollment in the 1000 level core courses.

The breadth requirements consist of introductory and intermediate-level courses chosen by the student from several different subject areas in the arts and sciences. Students should begin fulfilling these requirements during the freshman year. These courses further expand and develop the general knowledge and intellectual skills imparted by the core courses.

Satisfaction of the general education requirements at an acceptable level of performance will provide the student with a broad liberal education and with a solid foundation for advanced course work in the chosen major program.

Credit hours required for each cluster of courses under the breadth requirements are minimums. When the minimums are exceeded, the balance will be considered elective credit. In selecting courses to fulfill these requirements, students should read the course descriptions carefully to see whether listed prerequisites, if any, have been met.

Although the General Education requirements are similar for all major programs at Kean College, there are variations in the specific courses that are required within General Education. For that reason, the requirements for a baccalaureate degree for each major program are shown in their entirety in this catalog.

### COGNATE REQUIREMENTS

A major program may include up to 12 credits of required coursework in areas outside (but related to) the major. Not all programs include cognate requirements; for those that do, the courses are generally introductory-level courses in areas supporting the major.

### MAJOR REQUIREMENTS

Major programs at Kean College are offered in the arts and sciences and in a variety of professional areas, including education, healthcare, and the administrative sciences. These programs are designed to prepare students for advanced study in a particular area or for an entry-level position in a profession or career. Major programs in the liberal arts and sciences normally require between 30 to 40 credits of coursework to meet major requirements. Programs in education and professional areas (where accrediting bodies mandate specific general requirements) require more than 40 credits in the major.

The typical major program includes a core of required courses structured to provide for the student a foundation in the fundamental concepts, methodology, and subject matter of the discipline. The framework of most major programs also affords the student the opportunity to build up this foundation knowledge acquired in the required courses through the selection of a set of departmental elective courses. Major electives may be chosen to provide increased breadth across the discipline or to form a concentration in one particular sub-area.

### FREE ELECTIVES

After general education and major requirements are met, the remainder of the program consists of coursework which the student may complete in areas of his or her own choosing. Free elective coursework is generally taken during the junior and senior years. At least half of the free elective credits must be at the upper levels (3000-4000).

# SCHOOL OF EDUCATION, TECHNOLOGY, AND RELATED PROFESSIONS

## Academic Programs

### Degrees

- B.A. in Early Childhood, English Academic Sequence
- B.A. in Early Childhood, Psychology Academic Sequence
- B.A. in Early Childhood, Sociology and Anthropology Academic Sequence
- B.A. in Education of the Hearing Impaired
- B.A. in Elementary Education
- B.A. in Elementary Education, Option: Bilingual Education
- B.A. in Elementary Education, Option: Alternative Corrections, Political Science Academic Sequence
- B.A. in Elementary Education, Option: Alternative Corrections, Sociology Academic Sequence
- B.A. in Health and Physical Education
- B.A. in Industrial Education
- B.A. in Physical Education
- B.A. in Urban and Outdoor Recreation
- B.A. in Speech Correction
- B.A. in Teacher of the Handicapped
- B.S. in Technology (6 options)

## Faculty

### COMMUNICATION SCIENCES AND EDUCATIONAL SERVICES

Faculty: Andrews, Carmichael, Cohen, Farber, Hart, Larghi, Lemke, Mazurkiewicz (Chairperson), Putnam, Schuman, Schwartz, Walter

### EARLY CHILDHOOD AND FAMILY STUDIES

Faculty: Allen, Dorsey-Gaines, Dumais, Handler, Kelly, Knight (Chairperson), Mahan, Searson

### INSTRUCTION, CURRICULUM AND ADMINISTRATION

Faculty: Allen, Amick, Arnold, Baldassini, Banich, Celso, Esposito, Fanelli, Foskey, Franklin, Froude, Hancock, Healy, Hennings, Herrick, Kavett, Kolodiy, Lozano, Nichols, Orfan, Ortiz, Preil, Prince, Schuhmann, Shelly, Tehie, Weiger (Chairperson), Welch, Williams, Willis

### PHYSICAL EDUCATION, RECREATION AND HEALTH

Physical Education Faculty: Andzel, Bakker, Ball, Chaison, Errington, Palgi, Scuderi, Shiposh (Chairperson), Venezia

Recreation Faculty: Benson, Valentine

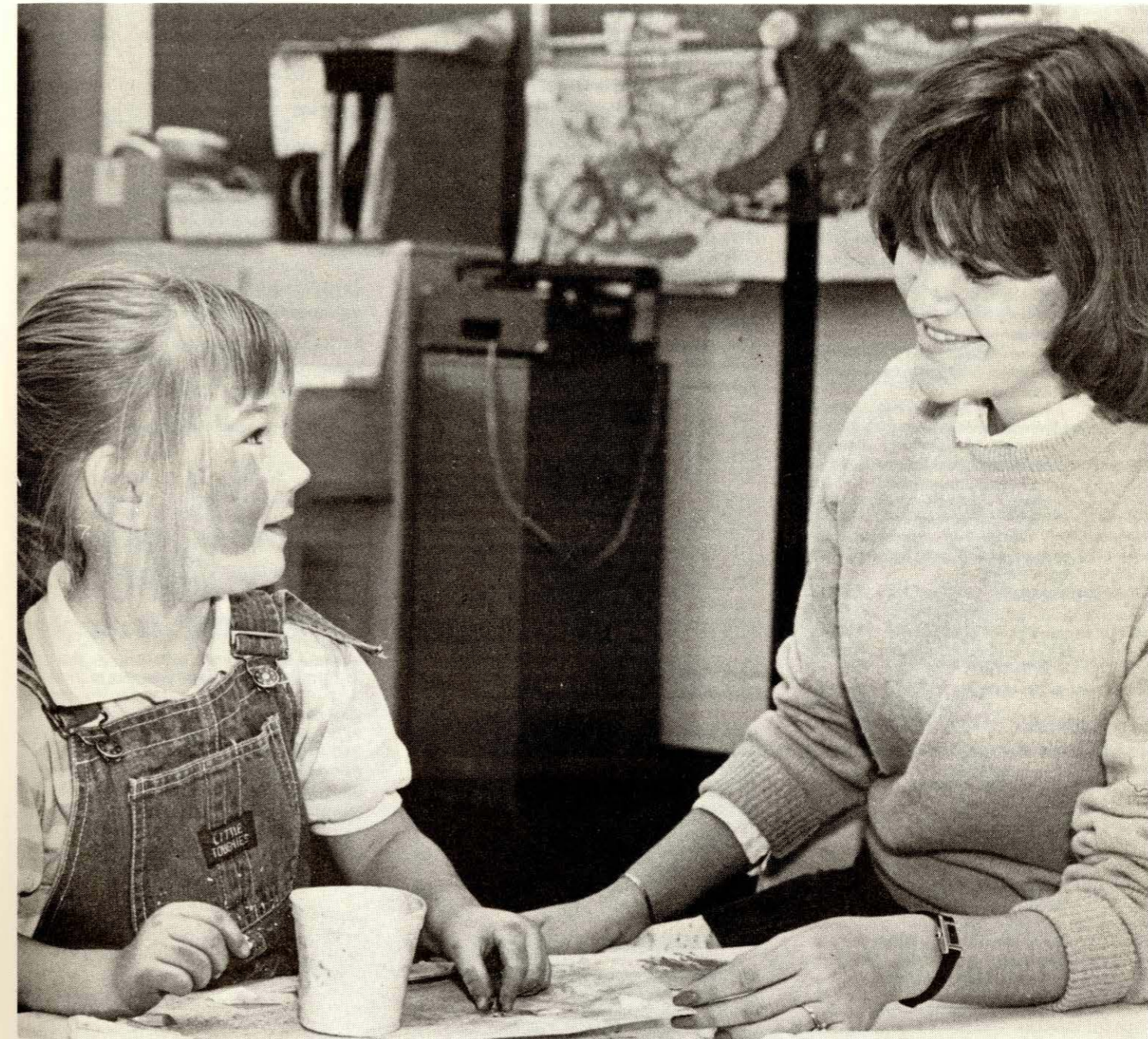
Health Faculty: Blake, Chut, Darden, Fox, Krueger, Ramoth

### SPECIAL EDUCATION AND INDIVIDUALIZED SERVICES

Faculty: Bachkai, Barnhart, Berson, Bilowitz, Calloway, Cangelosi, Dubin, Edelstein, Fisher (Chairperson), Frankel, Gaza, Healy, Heller, Jonas, LeComte, Rosenberg, Roth, Segal, Shulman, Terr

### TECHNOLOGY

Faculty: Amirat, Cherukara, Cokewood (Chairperson), Gershwin, Jahn, Kolodiy, Lokuta, Peterson, Riegler, Sarapin, Thatcher





## B.A. IN EARLY CHILDHOOD EDUCATION

Chairperson: Dr. Michael Knight  
B101 Ext. 2094

The career opportunities in early childhood education include teaching and working with children from infancy to eight years of age in day care infant centers, nursery schools, pre-kindergarten programs and first, second and third grades. The graduate of this program is also prepared to be a director of day care or pre-school programs or to work as a human service educator in hospitals and in the

### English Academic Sequence

#### GENERAL EDUCATION 60

##### CORE REQUIREMENTS 18

Eng 1020 Composition	3
GE 1100 Emergence of the Modern World	3
GE 1200 Intellectual and Cultural Traditions	3
GE 2020 Inquiry and Research	3
Eng 2203 Landmarks of World Literature	3
GE 2400 Science and Technology in the Modern World	3

##### BREADTH REQUIREMENTS 39

<i>*Humanities (9 credits from three areas)</i>	
STM 1900 Speech Communication	3
Fine Arts (performing)	3
Music (performing)	3

##### *\*Social/Behavioral Sciences 9*

Psy 1000 General Psychology	3
Soc 1000 Social Life and Society	3
Select one course from:	
Economics or Geography	3
History	3
Political Science	3

##### *\*Biological and Physical Sciences 4*

Astronomy	Geology	3
Biology	Meteorology	3
Chemistry	Physics	3

##### *\*Mathematical Sciences 3*

Select one Mat course

##### *Health and Physical Education 4*

ID 1225 Contemporary Issues in Health	3
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One of the following courses:

PEd 1101 Beginning Modern Dance	1
PEd 1103 Beginning Jazz Dance	1
PEd 1151 Folk and Square Dance	1

#### ADDITIONAL GENERAL EDUCATION REQUIREMENTS

Psy 2100 Child Psychology	3
Electives	7

(From any of the above \* areas)

courts. Upon graduation, students are qualified for New Jersey certification as teachers of elementary education (K-8) and teachers of nursery schools.

Students may choose to study either English, psychology, or sociology/anthropology as an academic sequence during their early childhood teacher preparation program.

### ACADEMIC SEQUENCE (30)

(This number is not included in total)  
*Courses taken as part of  
General Education requirements:  
Eng 1020, Eng 2203, STM 1900 9*

#### ADDITIONAL GENERAL EDUCATION COMPONENT 3

STM 4940 History of the Theatre	3
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#### OTHER REQUIRED MAJOR COURSES 18

Eng 2010 Creative Writing	3
Eng 3101 Introduction to Linguistics	3
Eng 3500 Poetry or	3
Eng 3506 Modern British and American Poetry: 1900-1945 or	3
Eng 3507 Contemporary British and American Poetry: 1945 to Present	3
STM 3915 Oral Interpretation of Children's Literature or any English literature course under period, figure or genre	3
STM 3935 Creative Drama	3
STM 2905 Public Speaking	3

### BEHAVIORAL/SOCIAL SCIENCES 18

ID 3201 Educational Psychology	3
ID 2200 Teacher, School and Society	3
ID 3200 Family as Educator	3
ID 2252 Introduction to Psychology of Handicapped	3
ID 3202 Understanding Parenthood	3
ID 4240 Parent and Community	3

### PROFESSIONAL EDUCATION 35

EC 2900 Sophomore Field Experience	3
EC 3210 Language Arts	6
EC 3200 Curriculum I	6
EC 3400 Junior Student Teaching	2
EC 3100 Exploring Books with Young Children	2
EC 4200 Curriculum II	6
EC 4400 Senior Student Teaching	10

TOTAL 131

### Psychology Academic Sequence

#### GENERAL EDUCATION 60

##### CORE REQUIREMENTS 18

Eng 1020 Composition	3
GE 1100 Emergence of the Modern World	3
GE 1200 Intellectual and Cultural Traditions	3
GE 2020 Inquiry and Research	3
Eng 2203 Landmarks of World Literature	3
GE 2400 Science and Technology in the Modern World	3

##### BREADTH REQUIREMENTS

*\*Humanities (9 credits from three areas)*

STM 1900 Speech Communication	3
Fine Arts (performing)	3
Music (performing)	3

##### *\*Social/Behavioral Sciences 9*

(from at least 3 disciplines)

Psy 1000 General Psychology	3
Soc 1000 Social Life and Society	3

Select one course from:

Economics or Geography	3
History	3
Political Science	3

##### *\*Biological and Physical Sciences 4*

Astronomy	Geology	4
Biology	Meteorology	4
Chemistry	Physics	4

##### *\*Mathematical Sciences 3*

Select one Mat course

##### *Health and Physical Education 4*

ID 1225 Contemporary Issues in Health	3
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One of the following courses:

PEd 1101 Beginning Modern Dance	1
PEd 1103 Beginning Jazz Dance	1
PEd 1151 Folk and Square Dance	1

Electives

(From any of the above \* areas)

## B.A. EARLY CHILDHOOD EDUCATION

### ACADEMIC SEQUENCE (31\*)

(This number is not included in total)

#### ADDITIONAL GENERAL EDUCATION COMPONENT 10

Course taken in General Ed		(3)
Psy 1000 General Psychology		3
Psy 2100 Child Psychology		3
Psy 3310 Psychology of Learning		3
Psy 4230 Experimental Psychology		4

#### OTHER REQUIRED MAJOR COURSES 18

Psy 3200 Psychology Statistics	3
Psy 3320 Theories of Personality	3
Psy 4200 Tests and Measurements	3
Psy 4940 Seminar: Issues in Contemporary Psychology	3

Choose two courses from the following:

Psy 3360 Theories of Motivation	3
Psy 3540 Abnormal Psychology	3
Psy 3630 Social Psychology	3
Psy 4400 Principles of Behavioral Analysis	3

### BEHAVIORAL/SOCIAL SCIENCES 18

ID 3201 Educational Psychology	3
ID 2200 Teacher, School and Society	3
ID 3200 Family as Educator	3
ID 2252 Introduction to Psychology of Handicapped	3
ID 3202 Understanding Parenthood	3
ID 4240 Parent and Community	3

### PROFESSIONAL EDUCATION 35

EC 2900 Sophomore Field Experience	3
EC 3210 Language Arts	6
EC 3200 Curriculum I	6
EC 3400 Junior Student Teaching	2
EC 3100 Exploring Books with Young Children	2
EC 4200 Curriculum II	6
EC 4400 Senior Student Teaching	10

*\*This academic sequence meets all requirements for the psychology major.*

TOTAL 131

### Sociology & Anthropology Academic Sequence

#### GENERAL EDUCATION 60

##### CORE REQUIREMENTS 18

Eng 1020 Composition	3
GE 1100 Emergence of the Modern World	3
GE 1200 Intellectual and Cultural Traditions	3
GE 2020 Inquiry and Research	3
Eng 2203 Landmarks of World Literature	3
GE 2400 Science and Technology in the Modern World	3

##### BREADTH REQUIREMENTS 36

*\*Humanities (9 credits from three areas)*

STM 1900 Speech Communication	3
Fine Arts (performing)	3
Music (performing)	3

##### *\*Social/Behavioral Sciences 9*

Psy 1000 General Psychology	3
Soc 1000 Social Life and Society	3
Ant 1800 Cultural Anthropology	3

##### *\*Biological and Physical Sciences 4*

Astronomy	Geology	4
Biology	Meteorology	4
Chemistry	Physics	4

##### *\*Mathematical Sciences 3*

Select one Mat course

##### *Health and Physical Education 4*

ID 1225 Contemporary Issues in Health	3
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One of the following courses:

PEd 1101 Beginning Modern Dance	1
PEd 1103 Beginning Jazz Dance	1
PEd 1151 Folk and Square Dance	1

#### ADDITIONAL GENERAL EDUCATION REQUIREMENTS 7

Psy 2100 Child Psychology	3
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Electives

(From any of the above \* areas)

### ACADEMIC SEQUENCE (30)

(This number is not included in total)

*Courses taken as part of  
General Education requirements:  
Soc 1000, Ant 1800 (6)*

#### ADDITIONAL GENERAL EDUCATION COMPONENT 6

Soc 2100 Sociology of the Family	3
Sociology elective	3

#### OTHER REQUIRED MAJOR COURSES 18

Soc 3151 The Community	3
Soc 4401 Social Change	3
Soc 2300 American Ethnic and Racial Groups	3
Soc 3150 Urban Sociology	3
Soc 2052 Methods of Social Research	3
Soc 3350 Social Inequality in America	3

### BEHAVIORAL/SOCIAL SCIENCES 18

ID 3201 Educational Psychology	3
ID 2200 Teacher, School and Society	3
ID 3200 Family as Educator	3
ID 2252 Introduction to Psychology of Handicapped	3
ID 3202 Understanding Parenthood	3
ID 4240 Parent and Community	3

### PROFESSIONAL EDUCATION 35

EC 2900 Sophomore Field Experience	3
EC 3210 Language Arts	6
EC 3200 Curriculum I	6
EC 3400 Junior Student Teaching	2
EC 3100 Exploring Books with Young Children	2
EC 4200 Curriculum II	6
EC 4400 Senior Student Teaching	10

TOTAL 131

## B.A. IN EDUCATION OF THE HEARING IMPAIRED

Coordinator: Dr. Beatrice D. Edelstein  
CSI Ext. 2218

The special education needs of the deaf and hard of hearing students necessitate having teachers with appropriate skills and knowledge to meet those needs—teachers with the desire to contribute to this personally and professionally rewarding field of education. The program in Education of the Hearing Impaired prepares educators for this special area of education.

The Kean College Speech and Hearing Center is one of the facilities available to the students in this program. Observations at this center and at community clinics and public school classrooms are a part of the students' program, as are sophomore and junior field experiences and senior year student teaching. Students completing this program and meeting all the graduation and certification criteria will be eligible for New Jersey certification as teachers of the deaf or hard of hearing, as well as certification by the Council on Education of the Deaf (CED).

All Speech and Hearing majors must pass a speech and language screening in order to be accepted into the program.

With this major the student will complete an interdisciplinary academic sequence.

### GENERAL EDUCATION 60

#### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World	3

#### BREADTH REQUIREMENTS

*\*Humanities (9 credits from three areas)*

STM 1900	Speech Communication	3
	Fine Arts	3

Select one course from:

Foreign Languages	
Music	
Philosophy or Religion	

*\*Social/Behavioral Sciences 9*

*(from at least 2 disciplines)*

Psy 1000	General Psychology	3
Psy 2100	Child Psychology or	
Psy 2110	Psychology of Adolescence	3

Select one course from:

Economics or Geography	
History	
Political Science	
Sociology or Anthropology	

*\*Physical and Biological Sciences 4*

Bio 1000	Principles of Biology	4
	<i>*Mathematical Sciences 3</i>	
Mat 1016	Statistics	3

*Health and Physical Education 4*

ID 1225	Contemporary Issues in Health	3
	One of the following:	1

PEd 1101 Beginning Modern Dance

PEd 1103 Beginning Jazz Dance

PEd 1151 Folk and Square Dance

Electives 13

*(From any of the above \* areas)*

### ACADEMIC SEQUENCE 36

ID 2252	Intro Psych. Handicapped	3
ID 4253	Orient to Psych. Testing	3
SPE 2251	Intro Speech, Language Hearing Disorders	3
SPE 2255	Normal Language Development	3
SPE 2260	Anat. & Phys. of Ear and Speech Mechanism	3
SPE 3253	Language Disorders	3
SPE 3259	Basic Audiology	3
SPE 4262	Signing I	3
SPE 4263	Signing II	3
SPE 2254	Phonetics	3
*SPE 3---	Speech and Language of the Hearing Impaired	3
SPE 2051	The Exceptional Individual	3

### BEHAVIORAL/SOCIAL SCIENCES 6

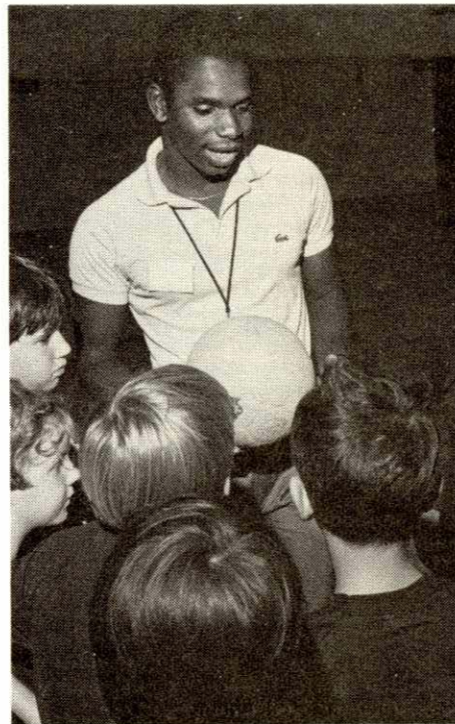
ID 2000	Teacher, School & Society	3
ID 3801	Educational Psychology	3

### PROFESSIONAL EDUCATION 30

SPE 1250	Pre-Admission Field Exp.	3
CS 3400	Teaching Reading in Elementary School	3
SPE 3262	Aural Rehabilitation	3
SPE 3263	Methods of Teaching the Deaf & Hard of Hearing I	4
SPE 3264	Methods of Teaching the Deaf & Hard of Hearing II	4
SPE 4203	Student Teaching	10
*SPE 4---	Teaching Content Areas to the Deaf and Hard of Hearing	3

TOTAL 132

*\*Course under revision—see the Coordinator.*



## B.A. IN ELEMENTARY EDUCATION

Chairperson: Dr. Myra Weiger  
W105D Ext. 2175

Students wishing to teach children from kindergarten through the eighth grade may choose a career in elementary education. Successful completion of the program will qualify the student for New Jersey certification (K-8).

The student majoring in elementary education must choose a major listed in the college catalogue as an academic sequence.

### REQUIREMENTS FOR ADMISSION TO B.A. ELEMENTARY EDUCATION (ALL OPTIONS)

Students are required to complete ICA 2800 (ICA 2802 for alternative/corrections options) and achieve a 2.5 G.P.A. and a "C" or better in STM 1900, Eng 1020 and a college-level math course prior to acceptance into the program.

Additional options within the elementary education program are as follows:

#### ALTERNATIVE/CORRECTIONS OPTION

Those wishing to be certified as elementary teachers may also wish to prepare to teach in correctional settings and alternative schools. Among these schools are shelters for juveniles in need of supervision, county detention facilities, community-based correctional programs for juveniles, and state correctional facilities for juveniles. Field placements for the students include these settings as well as regular elementary schools.

Political science or sociology are academic sequences available to the student choosing the alternative corrections option.

#### BILINGUAL OPTION

Students wishing to teach children whose native language is other than English may choose the bilingual option. Those successfully completing this program are granted New Jersey teacher certification in elementary education, (K-8), with a bilingual/multicultural endorsement.

The students in the bilingual option may choose any academic major in the catalog.

An additional admission requirement to this program is competency in both languages of instruction, usually Spanish and English, as measured by the Language Proficiency Test administered by the Center for Bilingual Education at the college. Deficiencies in either language may be corrected through individually prescribed coursework.

### GENERAL EDUCATION 63

#### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World	3

#### BREADTH REQUIREMENTS 33

*\*Humanities (9 credits from three areas)*

STM 1900	Speech Communication	3
	Fine Arts	3
	Music	3

*\*Social/Behavioral Sciences 9*

Psy 1000	General Psychology	3
Psy 2100	Child Psychology	3
Soc 1000	Social Life and Society	

or

Ant 1800	Cultural Anthropology	3
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*\*Biological and Physical Sciences 4*

Astronomy	Geology	
Biology	Meteorology	
Chemistry	Physics	

*\*Mathematical Sciences 3*

Select one Mat course

*Health and Physical Education 4*

ID 1225	Contemporary Issues in Health	3
	One of the following courses:	1

PEd 1101	Beginning Modern Dance	
PEd 1103	Beginning Jazz Dance	
PEd 1151	Folk and Square Dance	

Electives 4

### ACADEMIC SEQUENCE (30)

(This number is not included in total)

Students may select, with advisement, any major outlined in the catalog.

GENERAL EDUCATION COMPONENT 12

OTHER REQUIRED MAJOR COURSES 18

### BEHAVIORAL/SOCIAL SCIENCES 15

ID 3201	Educational Psychology	3
ID 2200	Teacher, School & Society	3
ID 2252	Introduction to Psychology of Handicapped	3
ID 3251	Foundations of Bilingual Education	3
ID 4250	School and Society: Cultural Minority and Urban Education Perspectives	3

### PROFESSIONAL EDUCATION 30

*Sophomore Level*

ICA 2800	Intro. Fld. Exp. Elem. Sch.	3
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*Junior Level*

ICA 3800	Fld. Exp. Elem. School	2
CS 3400	Exp. Tchg. Rdg. Elem. Sch.	3
ICA 3110	Exp. Lang. Arts Elem. Sch.	3
ICA 3120	Exp. Teaching Math-Elem. School	3
ICA 3130	Exp. Teaching Science- Elem. School	3
ICA 3140	Exp. Teaching Soc. Studies- Elem. School	3

ICA 3130	Exp. Teaching Science- Elem. School	3
ICA 3140	Exp. Teaching Soc. Studies- Elem. School	3

ICA 3130	Exp. Teaching Science- Elem. School	3
ICA 3140	Exp. Teaching Soc. Studies- Elem. School	3

ICA 3130	Exp. Teaching Science- Elem. School	3
ICA 3140	Exp. Teaching Soc. Studies- Elem. School	3

ICA 3130	Exp. Teaching Science- Elem. School	3
ICA 3140	Exp. Teaching Soc. Studies- Elem. School	3

*Senior Level*

ICA 4801	Prof. Intern. Elem. Teach. & Curr.	10
Electives		3

TOTAL 129

**B.A. ELEMENTARY EDUCATION**

**Alternative/Corrections  
Option: Political Science  
Academic Sequence**

**GENERAL EDUCATION 57**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World 3

**BREADTH REQUIREMENTS 33**

- \*Humanities (9 credits from three areas)*
- STM 1900 Speech Communication 3
- Fine Arts 3
- Music 3
- \*Social/Behavioral Sciences 9*
- Psy 1000 General Psychology 3
- Soc 1000 Social Life and Society 3
- PS 1010 Introduction to Politics I: Elements of Politics 3
- \*Physical and Biological Sciences 4*
- \*Mathematical Sciences 3*
- Select one Mat course
- Health and Physical Education 4*
- ID 1225 Contemporary Issues In Health 3
- One of the following courses: 1
- PEd 1101 Beginning Modern Dance
- PEd 1103 Beginning Jazz Dance
- PEd 1151 Folk and Square Dance
- Electives 4
- (From any of the above \* areas)

**ACADEMIC SEQUENCE (30)**

(This number is not included in total)

**GENERAL EDUCATION COMPONENT (6)**

- PS 1020 Introduction to Politics II: Political Institutions 3
- PS 2100 American Government and Politics 3

**OTHER REQUIRED MAJOR COURSES 24**

- PS 3650 Juvenile Justice 3
- One course in Public Administration 3
- One course from political theory area 3
- Five courses at the 3000-4000 level 15

**BEHAVIORAL/SOCIAL SCIENCES 18**

- Psy 2110 Psychology of Adolescence 3
- ID 3201 Educational Psychology 3
- ID 2200 Teacher, School and Society 3
- ID 3251 Foundations of Bilingual Ed. 3
- ID 2252 Introduction to Psychology of the Handicapped 3
- ID 4250 School and Society: Cultural, Minority and Urban Perspectives 3

**PROFESSIONAL EDUCATION 30**

*Sophomore Level*  
ICA 2802 Introductory Field Experiences In Alternative/Correctional Settings 3

*Junior Level*

- ICA 3802 Field Experiences in Teaching Alternative/Correctional Settings 2
- ICA 3611 Experiences In Curriculum and Methodology for Alternative Educational Settings 2
- ICA 3101 Experiences In Elementary Curriculum Content 4
- ICA 3111 Experiences In Teaching Literature and Basic English Skills in Alternative Educational Settings 3
- ICA 3120 Experiences In Teaching Mathematics In The Elementary School 3
- CS 3400 Experiences In Teaching Reading In The Elementary School 3

*Senior Level*

- ICA 4803 Professional Internship in Alternative/Corrections Teaching and Curriculum 10

**TOTAL 129**



**B.A. ELEMENTARY EDUCATION**

**Alternative/Corrections  
Option: Sociology Academic  
Sequence**

**GENERAL EDUCATION 60**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World 3

**BREADTH REQUIREMENTS 36**

- \*Humanities 9 (from at least 3 disciplines)*
- STM 1900 Speech Communication 3
- Fine Arts 3
- Music 3
- \*Social/Behavioral Sciences 9*
- Psy 1000 General Psychology 3
- PS 3650 Juvenile Justice 3
- Soc 1000 Social Life and Society 3
- Physical and Biological Sciences 4*
- Mathematical Sciences 3*
- Select one Mat course
- Health and Physical Education 4*
- ID 1225 Contemporary Issues in Health 3
- One of the following courses: 1
- PEd 1101 Beginning Modern Dance
- PEd 1103 Beginning Jazz Dance
- PEd 1151 Folk and Square Dance
- Electives 7
- (From any of the above \* areas)

**ACADEMIC SEQUENCE (30)**

(This number is not included in total)

*Course taken as part of General Education requirements: Soc 1000 (3)*

**ADDITIONAL GENERAL EDUCATION COMPONENT (6)**

- Electives from sociology at 3000 and 4000 level 6

**OTHER REQUIRED MAJOR COURSES 21**

- Soc 2050 Social Statistics 3
- Soc 2052 Methods of Social Research 3
- Soc 3050 Development of Sociological Theory 3
- Major Electives: 4 courses at the 3000 and 4000 level 12

**BEHAVIORAL/SOCIAL SCIENCES 18**

- Psy 2110 Psychology of Adolescence 3
- ID 3201 Educational Psychology 3
- ID 2200 Teacher, School and Society 3
- ID 3251 Foundations of Bilingual Ed. 3
- ID 2252 Introduction to Psychology of the Handicapped 3
- ID 4250 School and Society: Cultural, Minority and Urban Perspectives 3

**PROFESSIONAL EDUCATION 30**

*Sophomore Level*  
ICA 2802 Introductory Field Experiences In Alternative/Correctional Settings 3

*Junior Level*

- ICA 3802 Field Experiences In Alternative/Correctional Education 2
- ICA 3611 Experiences In Curriculum and Methodology for Alternative Educational Settings 2
- ICA 3101 Experiences In Elementary Curriculum Content 4
- ICA 3111 Experiences In Teaching Literature and Basic English Skills in Alternative Educational Settings 3
- ICA 3120 Experiences In Teaching Mathematics In the Elementary School 3
- CS 3400 Experiences In Teaching Reading In the Elementary School 3

*Senior Level*

- ICA 4803 Professional Internship In Alternative/Corrections Teaching and Curriculum 10

**TOTAL 129**



Option: Bilingual Education

GENERAL EDUCATION 60

CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World	3

BREADTH REQUIREMENTS 33

*\*Humanities (9 credits from three areas)*

STM 1900	Speech Communication	3
Fine Arts		3
Music		3

*\*Social/Behavioral Sciences 9 (from at least 2 disciplines)*

Psy 1000	General Psychology	3
Psy 2100	Child Psychology	3
Select one course from:		3
Economics or Geography		
History		
Political Science		
Sociology or Anthropology		

*\*Biological and Physical Sciences 4*

Astronomy	Geology	
Biology	Meteorology	
Chemistry	Physics	

*\*Mathematical Sciences 3*

Select one Mat course

Health and Physical 4		
ID 1225	Contemporary Issues in Health	3

One of the following courses:

PEd 1101	Beginning Modern Dance	1
PEd 1103	Beginning Jazz Dance	
PEd 1151	Folk and Square Dance	

Electives 4  
(From any of the above \* areas)

ACADEMIC SEQUENCE (30)

(This number is not included in total)  
Students may select, with advisement, any major outlined in the catalog.

GENERAL EDUCATION COMPONENT (9)

OTHER REQUIRED MAJOR COURSES 21

BEHAVIORAL/SOCIAL SCIENCES 15

ID 3201	Educational Psychology	3
ID 2200	Teacher, School and Society	3
ID 3251	Foundations of Bilingual Education	3
ID 4251	Bilingual Child: Language and Culture	3
ID 4252	Bilingual Child: Problems of Adjustment to American Society	3

PROFESSIONAL EDUCATION 33

*Sophomore Level*

ICA 2800	Introductory Field Experiences in Elementary Schools (Bilingual Setting)	3
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*Junior Level*

ICA 3800	Field Experiences in Elementary School (Bilingual Setting)	2
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ICA 3130	Experiences in Teaching Science in the Elementary School	3
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ICA 3140	Experiences in Teaching Social Studies in the Elementary School	3
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ICA 3120	Experiences in Teaching Mathematics in the Elementary School	3
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*Senior Level*

ICA 4801	Professional Internship in Elementary Teaching and Curriculum (Bilingual Setting)	10
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ICA 4410	Language and Reading Skills in a Bilingual Setting	3
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*Other professional requirements*

ICA 3410	Teaching Techniques for Bilingual Bicultural Schools	3
ICA 3420	Theory and Practice of Teaching English as a Second Language I	3

TOTAL 129



Chairperson: Dr. Dolores Shiposh  
D130A Ext. 2101

Graduates of this major will be prepared to teach health and physical education from kindergarten through the twelfth grade, develop and organize intramural programs, and provide effective coaching in interscholastic athletics.

A 2.5 cumulative grade point average (GPA) is required for admission into the program. See Physical Education Major Handbook for additional requirements and information for Option: Teacher Certification.

GENERAL EDUCATION 57

CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World	3

BREADTH REQUIREMENTS 35

*\*Humanities 9 (from at least 3 disciplines)*

STM 1900	Speech Communication	3
Select two courses from:		
Fine Arts or Art History		
Foreign Languages		
Music		
Philosophy or Religion		

*\*Social/Behavioral Sciences 9*

Psy 1000	General Psychology	3
Psy 2100	Child Psychology	3
Soc 1000	Social Life & Society	3

*\*Physical and Biological Sciences 4*

Bio 1000	Principles of Biology	4
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*\*Mathematical Sciences 3*

Select one Mat course

*Health and Physical Education 4*

ID 1225	Contemporary Issues in Health	3
PEd 1151	Folk and Square Dance	1
Electives		6

(From any of the above \* areas)

ADDITIONAL GENERAL EDUCATION COMPONENT 4

Bio 2402	Human Anatomy and Physiology	4
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ACADEMIC SEQUENCE (43)

(This number is not included in total)  
Courses taken as part of breadth requirements in General Education:

Bio 1000	
ID 1225	
Bio 2402	

OTHER MAJOR REQUIREMENTS 32

PEd 2500	Introduction to Biomechanics	3
PEd 3505	Kinesiology	3
PEd 3510	Physiology of Exercise	3
HEd 3231	First Aid and Accident Prevention	3

*Movement Forms 11*

*Dance 1*

Select one of the following:

PEd 1101	Beginning Modern Dance	
PEd 1103	Beginning Jazz Dance	
PEd 2101	Intermediate Jazz Dance	
PEd 2102	Intermediate Modern Dance	

*Gymnastics 1*

Select one of the following:

PEd 1045	Beginning Gymnastics (Men's Events)	
PEd 1047	Beginning Gymnastics (Women's Events)	
PEd 2048	Intermediate Gymnastics	

*Team Activities 2*

Select two of the following:

PEd 1010	Beginning Basketball	
PEd 1030	Beginning Field Hockey	
PEd 1035	Beginning Football	
PEd 1055	Lacrosse	
PEd 1065	Beginning Soccer	
PEd 1070	Beginning Softball	
PEd 1075	Speedball	
PEd 1095	Beginning Volleyball	

*Individual Activities 2*

Select two of the following:

PEd 1000	Beginning Archery	
PEd 1005	Badminton	
PEd 1020	Conditioning Activities	
PEd 1025	Beginning Fencing	
PEd 1040	Beginning Golf	
PEd 1080	Beginning Swimming	
PEd 1088	Beginning Tennis	
PEd 1092	Track and Field	
PEd 1098	Wrestling	
PEd 1130	Aerobics	

*Advanced Activities 2*

Select two of the following:

PEd 1081	Intermediate Swimming	
PEd 2000	Intermediate Archery	
PEd 2010	Intermediate Basketball	
PEd 2025	Intermediate Fencing	
PEd 2030	Intermediate Field Hockey	
PEd 2035	Intermediate Football	
PEd 2040	Golf	
PEd 2065	Intermediate Soccer	
PEd 2082	Advanced Swimming Skills	
PEd 2083	Red Cross Senior Life Saving	
PEd 2088	Intermediate Tennis	
PEd 2095	Intermediate Volleyball	

*Selected Movement Forms 3*

Select three from above categories

Select three of the following: 9

HEd 2600	Consumer Health	
HEd 3160	Personal Health Maintenance	
HEd 3230	Perspectives in Safety	
HEd 3400	Human Sexuality	
HEd 3600	Nutrition	
HEd 3635	Introduction to Public Health	
HEd 3725	Death in Perspective	
HEd 4333	Drug Use and Abuse	
HEd 4433	Contemporary Sexual Issues and Values	
HEd 4650	Community Health Counseling	

BEHAVIORAL/SOCIAL SCIENCES 12

ID 2200	Teacher, School & Society	3
ID 3201	Educational Psychology	3
ID 1200	Introduction to Motor Learning	3
ID 4205	Evaluation in Physical Education	3

PROFESSIONAL EDUCATION 30

PEd 2800	Physical Education Pre-Professional Field Experience	3
PEd 3610	Physical Education Curriculum I	4
PEd 3611	Physical Education Curriculum II	5
PEd 4600	Adapted Physical Education	3
PEd 4610	Introduction to Organization, Administration and Supervision of Physical Education	3
*PEd 4690	Student Teaching	10
CS 4407	Reading	2

TOTAL 131

\*Course under revision—see the Coordinator

## B.A. IN INDUSTRIAL EDUCATION\*

Coordinator: Dr. Marvin Sarapin  
H110 Ext. 2063

\*This program is subject to change. It is valid only for students entering in Fall, 1985.

Students interested in teaching in the industrial arts areas have the opportunity to work toward a bachelor of arts in industrial education offered by the department of technology. Students are introduced to construction, manufacturing, communications, (drafting/design, electronics and graphic arts). They then elect an area (or areas) of specialization. The professional courses and field experiences are directly related to these areas of specialization.

Career opportunities for graduates of this program include teaching at the elementary, junior and senior high school levels. Graduates may also qualify to teach industrial arts to the handicapped by completing some additional courses.

In addition to providing the graduates with skills and knowledge that have a market outside of the classroom, the department of technology is very proud that 100 percent of its students seeking jobs in education find them.

With this major the student will complete an interdisciplinary academic sequence.

### GENERAL EDUCATION 59

#### CORE REQUIREMENT 18

Eng 1020 Composition	3
GE 1100 Emergence of the Modern World	3
GE 1200 Intellectual & Cultural Traditions	3
GE 2020 Inquiry & Research	3
Eng 2203 Landmarks of World Literature	3
GE 2400 Science & Technology in the Modern World	3

#### BREADTH REQUIREMENTS 41

<i>*Humanities 9</i>	
<i>(from at least 2 disciplines)</i>	
STM 1900 Speech Communication	3
Eng 3005 Advanced Composition	3
Select one course from:	
Fine Arts or Art History	
Foreign Languages	
Music	
Philosophy or Religion	
<i>*Social/Behavioral Sciences 9</i>	
Psy 1000 General Psychology	3
Psy 2110 Psychology of Adolescence	3
or	
Psy 2100 Child Psychology	3
Soc 1000 Social Life and Society	3

#### *\*Physical and Biological Sciences 4*

Phy 1000 or Phy 2091	4
or	
Che 1000	3
<i>*Mathematical Sciences 3</i>	
Mat 1052 College Algebra and Trigonometry	3
<i>Health &amp; Physical Education 4</i>	
ID 1225 Contemp Issues in Health Physical Education	3
1	
<i>Technology 12</i>	
T 1200 Elements of Drafting	3
T 1400 Elements of Manufacturing	3
T 1500 Elements of Electronics	3
T 1600 Elements of Graphics	3

### ACADEMIC SEQUENCE 35

T 1300 Elements of Construction	3
T 1700 Elements of Power	3
T 3102 Computers in Technology Education	3
<i>Department Major Cluster 15</i>	
<i>(Choice of ONE cluster)</i>	
<i>Construction Cluster</i>	
T 2301 Machine Woodworking	3
T 2302 Furniture Design & Const	3
T 3303 Carpentry & Building Const	3
T 4304 Contemporary Trends	3
T 4305 Cabinetmaking	3
—OR—	
<i>Manufacturing Cluster</i>	
T 2401 Welding Technology	3
T 2402 Metal Fabrication	3
T 3403 Foundry: Theory & Practice	3
T 3404 Machine Metals	3
T 3405 Products Manufacturing	3
—OR—	
<i>Communication Cluster (Under this cluster one must select one of the areas A, B, or C)</i>	
<i>A. Drafting &amp; Design</i>	
T 2201 Technology Drafting	3
T 2202 Mach Drafting & Design	3
T 3200 Design Fundamentals	3
T 3204 Architectural Drafting	3
T 4206 Technical Illustration	3
—OR—	
<i>B. Electronics</i>	
T 2501 Circuit Analysis I	4
T 2502 Circuit Analysis II	4
T 3503 Solid State Devices	4
T 3504 Circuit Systems	3

—OR—

#### C. Graphics

T 2601 Advanced Letterpress Repr	3
T 2602 Screen Process Reproduction	3
T 3603 Blk & Wh Photo Reproduction	3
T 4606 Lithography Reproduction I	3
T 4607 Lithography Reproduction II	3

—OR—

#### Comprehensive Cluster

T 2202 Machine Drafting & Design	3
T 2301 Machine Woodworking	3
T 2501 Circuit Analysis I	4
T 2602 Screen Process Reproduction	3
T 3404 Machine Metals	3

#### DEPARTMENT ELECTIVES

(Choose from two Clusters of Specializations other than major Cluster) 11

### BEHAVIORAL/SOCIAL SCIENCES 9

ID 2200 Teacher, School & Society	3
ID 3201 Educational Psychology	3
ID 4250 Sch & Soc: Cult Min & Urban Perspectives	3

### PROFESSIONAL EDUCATION 28

CS 4403 Developmental Program in Reading	3
CS 4406 Teaching Reading in the Sec. Schools	3
T 2106 Industrial Arts Sophomore Field Experience	3
T 3107 Industrial Arts Junior Field Experience	3
T 3108 Principles and Techniques of Teaching Industrial Arts	3
T 4109 Industrial Arts Curriculum and Laboratory Design	3
T 4120 Full Semester Student Teaching	10

TOTAL 131

## B.A. IN PHYSICAL EDUCATION

Chairperson: Dr. Dolores Shiposh  
D130A Ext. 2101

The major in physical education provides for professional preparation in three areas of specialization: adult fitness, athletic training, and teaching certification. Students selecting the adult fitness option would be qualified for adult fitness positions in business and industry. Students selecting the athletic training option would be prepared for NATA certification examinations and would then be qualified athletic trainers. Students selecting the teaching option would be qualified to teach grades K-12. One of the teaching options is for physical education only; the other is for health and physical education.

A 2.5 cumulative grade point average (GPA) is required for admission into the major. For other admission requirements refer to the Physical Education Majors' Handbook.

### Option: Adult Fitness

### GENERAL EDUCATION 57

#### CORE REQUIREMENTS 18

Eng 1020 Composition	3
GE 1100 Emergence of the Modern World	3
GE 1200 Intellectual and Cultural Traditions	3
GE 2020 Inquiry and Research	3
Eng 2203 Landmarks of World Literature	3
GE 2400 Science and Technology in the Modern World	3

#### BREADTH REQUIREMENTS 35

<i>*Humanities 9</i>	
<i>(from at least 3 disciplines)</i>	
STM 1900 Speech Communication	3
Select two courses from:	
Fine Arts or Art History	
Foreign Languages	
Music	
Philosophy or Religion	
<i>*Social/Behavioral Sciences 9</i>	
Psy 1000 General Psychology	3
Psy 3120 Adult Psychology	3
Soc 1000 Social Life & Society	3
<i>*Physical and Biological Sciences 4</i>	
Bio 1000 Principles of Biology	4

<i>*Mathematical Sciences 3</i>	
Select one Mat course	
<i>Health and Physical Education 4</i>	
ID 1225 Contemporary Issues in Health	3
PEd 1151 Folk and Square Dance	1
Electives	
6	

(From any of the above \* areas)

### COGNATE REQUIREMENTS 4

Bio 2402 Human Anatomy and Physiology	4
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### MAJOR REQUIREMENTS 61

PEd 2500 Introduction to Biomechanics	3
PEd 3505 Kinesiology	3
PEd 3510 Physiology of Exercise	3
HEd 3231 First Aid and Accident Prevention	3

#### Movement Forms 11

##### Dance 1

Select one of the following:

PEd 1101 Beginning Modern Dance	
PEd 1103 Beginning Jazz Dance	
PEd 2101 Intermediate Jazz Dance	
PEd 2102 Intermediate Modern Dance	

##### Gymnastics 1

Select one of the following:

PEd 1045 Beginning Gymnastics (Men's Events)	
PEd 1047 Beginning Gymnastics (Women's Events)	
PEd 2048 Intermediate Gymnastics	

##### Team Activities 2

Select two of the following:

PEd 1010 Beginning Basketball	
PEd 1030 Beginning Field Hockey	
PEd 1035 Beginning Football	
PEd 1055 Lacrosse	
PEd 1065 Beginning Soccer	
PEd 1070 Beginning Softball	
PEd 1075 Speedball	
PEd 1095 Beginning Volleyball	

##### Individual Activities 2

Select two of the following:

PEd 1000 Beginning Archery	
PEd 1005 Badminton	
PEd 1020 Conditioning Activities	
PEd 1025 Beginning Fencing	
PEd 1040 Beginning Golf	
PEd 1080 Beginning Swimming	
PEd 1088 Beginning Tennis	
PEd 1092 Track and Field	
PEd 1098 Wrestling	
PEd 1130 Aerobics	

### Advanced Activities 2

Select two of the following:

PEd 1081 Intermediate Swimming	
PEd 2000 Intermediate Archery	
PEd 2010 Intermediate Basketball	
PEd 2025 Intermediate Fencing	
PEd 2030 Intermediate Field Hockey	
PEd 2035 Intermediate Football	
PEd 2040 Golf	
PEd 2065 Intermediate Soccer	
PEd 2082 Advanced Swimming Skills	
PEd 2083 Red Cross Senior Life Saving	
PEd 2088 Intermediate Tennis	
PEd 2095 Intermediate Volleyball	

### Selected Movement Forms 3

Select three from above categories

ID 1200 Introduction to Motor Learning	3
ID 4205 Evaluation in Physical Education	3
PEd 2800 Physical Education Pre-Professional Field Experience	3
PEd 3500 Care and Prevention of Athletic Injuries	3
PEd 3611 Curriculum II	5
PEd 4600 Adapted Physical Education	3
PEd 4625 Organization and Administration of Adult Fitness Programs	3
PEd 4626 Prescriptive Exercise Programs	3
PEd 4627 Adult Fitness Internship	3
HEd 4231 First Aid Instructor	3
HEd 3600 Nutrition	3
MgS 2030 Business Organization and Management	3

### FREE ELECTIVES 11

TOTAL 129

**B.A. IN PHYSICAL EDUCATION**

**Option: Athletic Training**

Chairperson: Dr. Dolores Shiposh  
D130A Ext. 2101

**GENERAL EDUCATION 57**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World 3

**BREADTH REQUIREMENTS 35**

- \*Humanities 9 (from at least 3 disciplines)*
- STM 1900 Speech Communication 3
- Select two courses from:  
Fine Arts or Art History
- Foreign Languages
- Music
- Philosophy or Religion

*\*Social/Behavioral Sciences 9*

- Psy 1000 General Psychology 3
- Psy 2100 Child Psychology 3
- Soc 1000 Social Life & Society 3

*\*Physical and Biological Sciences 4*

- Bio 1000 Principles of Biology 4

*\*Mathematical Sciences 3*

Select one Mat course

*Health and Physical Education 4*

- ID 1225 Contemporary Issues in Health 3
- PEd 1151 Folk and Square Dance 1
- Electives 6  
(From any of the above \* areas)

**COGNATE REQUIREMENTS 4**

- Bio 2402 Human Anatomy and Physiology

**MAJOR REQUIREMENTS 61**

- PEd 2500 Introduction to Biomechanics 3
- PEd 3505 Kinesiology 3
- PEd 3510 Physiology of Exercise 3
- HEd 3231 First Aid and Accident Prevention 3

*Movement Forms 11*

*Dance 1*

Select one of the following:

- PEd 1101 Beginning Modern Dance
- PEd 1103 Beginning Jazz Dance
- PEd 2101 Intermediate Jazz Dance
- PEd 2102 Intermediate Modern Dance

*Gymnastics 1*

Select one of the following:

- PEd 1045 Beginning Gymnastics (Men's Events)
- PEd 1047 Beginning Gymnastics (Women's Events)
- PEd 2048 Intermediate Gymnastics

*Team Activities 2*

Select two of the following:

- PEd 1010 Beginning Basketball
- PEd 1030 Beginning Field Hockey
- PEd 1035 Beginning Football
- PEd 1055 Lacrosse
- PEd 1065 Beginning Soccer
- PEd 1070 Beginning Softball
- PEd 1075 Speedball
- PEd 1095 Beginning Volleyball

*Individual Activities 2*

Select two of the following:

- PEd 1000 Beginning Archery
- PEd 1005 Badminton
- PEd 1020 Conditioning Activities
- PEd 1025 Beginning Fencing
- PEd 1040 Beginning Golf
- PEd 1080 Beginning Swimming
- PEd 1088 Beginning Tennis
- PEd 1092 Track and Field
- PEd 1098 Wrestling
- PEd 1130 Aerobics

*Advanced Activities 2*

Select two of the following:

- PEd 1081 Intermediate Swimming
- PEd 2000 Intermediate Archery
- PEd 2010 Intermediate Basketball
- PEd 2025 Intermediate Fencing
- PEd 2030 Intermediate Field Hockey
- PEd 2035 Intermediate Football
- PEd 2040 Golf
- PEd 2065 Intermediate Soccer
- PEd 2082 Advanced Swimming Skills
- PEd 2083 Red Cross Senior Life Saving
- PEd 2088 Intermediate Tennis
- PEd 2095 Intermediate Volleyball

*Selected Movement Forms 3*

Select three from above categories

- ID 1200 Introduction to Motor Learning 3
- ID 4205 Evaluation in Physical Education 3

- PEd 2800 Physical Education Pre-Professional Field Experience 3

- PEd 3500 Care and Prevention of Athletic Injuries 3

- PEd 3501 Advanced Athletic Training 3

- PEd 3502 Clinical Experiences in Athletic Training I 3

- PEd 3503 Clinical Experiences in Athletic Training II 3

- PEd 3504 Therapeutic Modalities and Rehabilitation 3

- PEd 4600 Adapted Physical Education 3

- Bio 3405 Gross Anatomy 4

- HEd 3600 Nutrition 3

- HEd 4231 First Aid Instructor 3

One of the following:

- EDP 3801 Educational Psychology
- \*Psy 2100 Child Psychology
- Psy 2110 Psychology of Adolescence
- Psy 3630 Social Psychology
- Psy 4360 Physiological Psychology

One of the following:

- HEd 3537 School and Community Health Programs
- HEd 4650 Community Health Counseling

**FREE ELECTIVES 6-9**

TOTAL 129

\*May be taken towards partial fulfillment of General Education's Social/Behavioral Sciences cluster.

**B.A. IN PHYSICAL EDUCATION**

**Option: Teaching Certification**

Chairperson: Dr. Dolores Shiposh  
D130A Ext. 2101

**GENERAL EDUCATION 61**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World 3

**BREADTH REQUIREMENTS 39**

- \*Humanities 9 (from at least 3 disciplines)*
- STM 1900 Speech Communication 3
- Select two courses from:  
Fine Arts or Art History
- Foreign Languages
- Music
- Philosophy or Religion

*\*Social/Behavioral Sciences 9*

- (from at least 2 disciplines)
- Psy 1000 General Psychology 3
- Psy 2100 Child Psychology 3
- Soc 1000 Social Life & Society 3

*\*Physical and Biological Sciences 4*

- Bio 1000 Principles of Biology 4

*\*Mathematical Sciences 3*

Select one Mat course

*Health and Physical Education 4*

- ID 1225 Contemporary Issues in Health 3
- PEd 1151 Folk and Square Dance 1
- Electives 10  
(From any of the above \* areas)

**ACADEMIC SEQUENCE (34)**

(This number is not included in total)

- Course taken as part of the breadth requirements in General Education:  
Bio 1000 3
- ID 1225 (7)

**ADDITIONAL GENERAL EDUCATION COMPONENT 4**

- Bio 2402 Human Anatomy and Physiology

**OTHER MAJOR REQUIREMENTS 23**

- PEd 2500 Introduction to Biomechanics 3
- PEd 3505 Kinesiology 3
- PEd 3510 Physiology of Exercise 3
- HEd 3231 First Aid and Accident Prevention 3

*Movement Forms 11*

*Dance 1*

Select one of the following:

- PEd 1101 Beginning Modern Dance
- PEd 1103 Beginning Jazz Dance
- PEd 2101 Intermediate Jazz Dance
- PEd 2102 Intermediate Modern Dance

*Gymnastics 1*

Select one of the following:

- PEd 1045 Beginning Gymnastics (Men's Events)
- PEd 1047 Beginning Gymnastics (Women's Events)
- PEd 2048 Intermediate Gymnastics

*Team Activities 2*

Select two of the following:

- PEd 1010 Beginning Basketball
- PEd 1030 Beginning Field Hockey
- PEd 1035 Beginning Football
- PEd 1055 Lacrosse
- PEd 1065 Beginning Soccer
- PEd 1070 Beginning Softball
- PEd 1075 Speedball
- PEd 1095 Beginning Volleyball

*Individual Activities 2*

Select two of the following:

- PEd 1000 Beginning Archery
- PEd 1005 Badminton
- PEd 1020 Conditioning Activities
- PEd 1025 Beginning Fencing
- PEd 1040 Beginning Golf
- PEd 1080 Beginning Swimming
- PEd 1088 Beginning Tennis
- PEd 1092 Track and Field
- PEd 1098 Wrestling
- PEd 1130 Aerobics

*Advanced Activities 2*

Select two of the following:

- PEd 1081 Intermediate Swimming
- PEd 2000 Intermediate Archery
- PEd 2010 Intermediate Basketball
- PEd 2025 Intermediate Fencing
- PEd 2030 Intermediate Field Hockey
- PEd 2035 Intermediate Football
- PEd 2040 Golf
- PEd 2065 Intermediate Soccer
- PEd 2082 Advanced Swimming Skills
- PEd 2083 Red Cross Senior Life Saving
- PEd 2088 Intermediate Tennis
- PEd 2095 Intermediate Volleyball

*Selected Movement Forms 3*

Select three from above categories

**BEHAVIORAL/SOCIAL SCIENCES 12**

- ID 2200 Teacher, School & Society 3
- ID 3201 Educational Psychology 3
- ID 1200 Introduction to Motor Learning 3
- ID 4205 Evaluation in Physical Education 3

**PROFESSIONAL EDUCATION 30**

- PEd 2800 Physical Education Pre-Professional Field Experience 3
- PEd 3610 Physical Education Curriculum I 4
- PEd 3611 Physical Education Curriculum II 5
- PEd 4600 Adapted Physical Education 3
- PEd 4610 Introduction to Organization, Administration and Supervision of Physical Education 3
- \*PEd 4690 Student Teaching 10
- CS ---- Reading 2

**ELECTIVES 2**

TOTAL 128

\*Course under revision—see Coordinator

## B.A. IN URBAN AND OUTDOOR RECREATION

Coordinator: Dr. John Valentine  
T118 Ext. 2214

The major in Urban and Outdoor Recreation prepares students for a career in one of the following branches of the recreation profession: Therapeutic Recreation, Community Recreation, Industrial Recreation, Commercial Recreation, Outdoor Recreation, Military Recreation, and Municipal Recreation.

### GENERAL EDUCATION 53

#### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World	3

#### BREADTH REQUIREMENTS 35

*\*Humanities 12 (from at least 3 disciplines)*

STM 1900	Speech Communication	3
Select from:		
Fine Arts or Art History		
Foreign Languages		
Music		
Philosophy or Religion		
<i>Social and Behavioral Sciences: 12</i>		
Psy 1000	General Psychology	3
Eco 1020	Principles of Economics I	3
Soc 1000	Social Life and Society	3
Choose one course from:		
Economics or Geography		
History		
Political Science		
Psychology		
Sociology or Anthropology		
<i>Biological and Physical Sciences 4</i>		
Astronomy	Geology	
Biology	Meteorology	
Chemistry	Physics	
<i>Mathematical Sciences 3</i>		
<i>Health and Physical Education 3</i>		
ID 1225	Critical Issues & Values of Contemporary Health	3

### COGNATE REQUIREMENT 1

Physical Education	1
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### MAJOR REQUIREMENTS 44

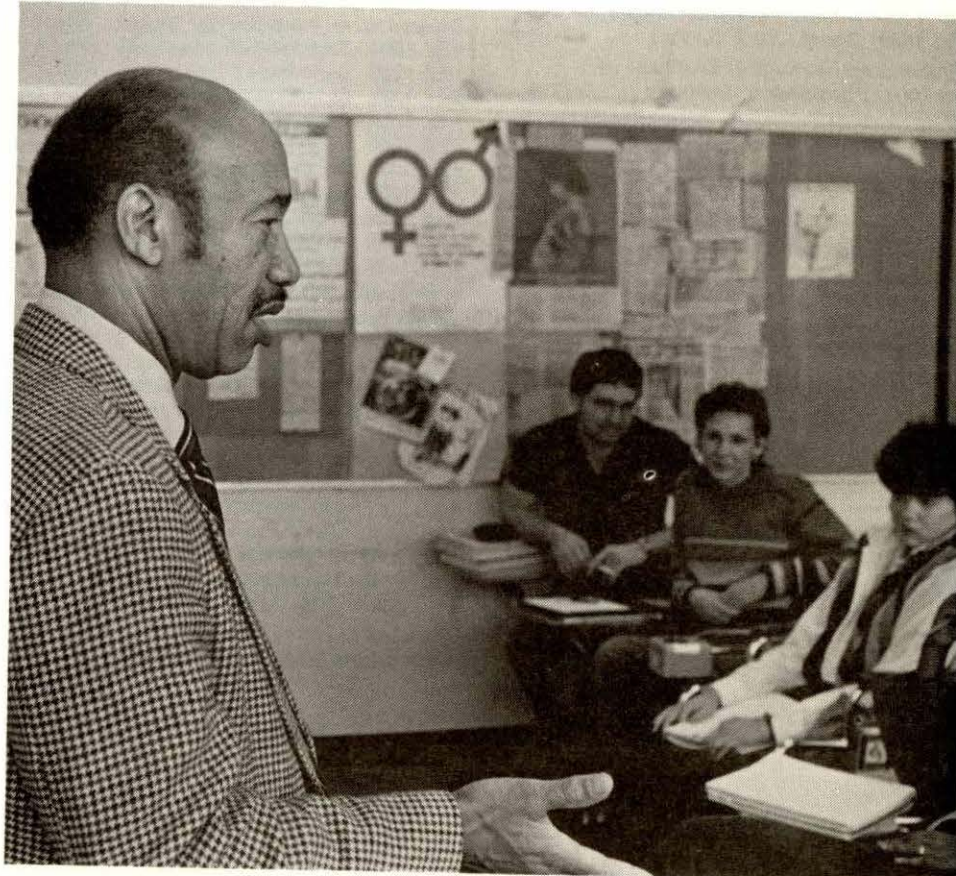
Rec 2901	Foundations of American Recreation	3
Rec 2903	Lifetime Recreation Activities	3
Rec 2910	Program Organization and Facility Design	3
Rec 3800	Environmental Recognizance	3
Rec 3900	Social Recreation	3
Rec 3903	Recreation, Administration, Supervision, and Management	3
Rec 3910	In-Semester Practicum	3
Rec 4500	Internship	5
Rec 4900	Individual and Group Leadership Skills	3
Rec 4903	Senior Seminar Problem Solving	3
PEd 2600	Camping	3
MgS 3030	Personnel Management	3

### MAJOR ELECTIVES 6

(selected with departmental advisement)

### FREE ELECTIVES 27

TOTAL 124



## B.A. IN SPEECH CORRECTION

Coordinator: Dr. Martin Shulman  
CSI103 Ext. 2218

Students desiring to work in the area of communication problems can prepare for a career as a speech pathologist in the Kean College degree program in speech and hearing. The graduate of this program will be prepared to identify, assess and correct all types of speech disorders including articulation, voice, language and stuttering problems. Employment opportunities are at hospital, community and university clinics, public schools, and private practice for a speech pathologist with a master's degree.

Students seeking preparation for this rewarding area of professional activity will observe and work under supervision in the Kean College Speech and Hearing Center and many community facilities.

All Speech and Hearing majors must pass a speech and language screening in order to be accepted into the program.

The student will complete an interdisciplinary academic sequence within this major.

### GENERAL EDUCATION 57

#### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World	3

#### BREADTH REQUIREMENTS 33

*Humanities 12 (from at least 3 areas)*

STM 1900	Speech Communication	3
Select three courses from:		
Fine Arts or Art History		
Foreign Languages		
Music		
Philosophy or Religion		

#### *Behavioral and Social Sciences 12*

Psy 1000	General Psychology	3
Psy 2100	Child Psychology	3
Select two courses from two areas:		
Economics or Geography		
History		
Political Science		
Sociology or Anthropology		
<i>Biological and Physical Sciences 4</i>		
Bio 1000	Principles of Biology	4
<i>Mathematical Sciences 3</i>		
Mat 1016	Descriptive Statistics	3
<i>Health and Physical Education 4</i>		
ID 1125	Critical Issues and Values of Contemporary Health	3
<i>Additional Required Cognate 4</i>		
Bio 2402	Prin. Human Anat. & Phys.	4
Physical Education		1

### MAJOR REQUIREMENTS 46

SPE 2051	The Exceptional Child	3
SPE 2251	Intro. Speech, Lang., Hrg. Disorders	3
SPE 2254	Phonetics	3
SPE 2255	Normal Language Development	3
SPE 2260	Anat. & Phys. of Ear & Speech	3
SPE 2261	Speech and Hearing Science*	3
SPE 3253	Language Disorders	3
SPE 3256	Disorders of Artic & Voice	3
SPE 3257	Organic Dis. Speech & Language	3
SPE 3259	Basic Audiology	3
SPE 3262	Aural Rehabilitation	3
SPE 4257	Theory of Clinical Practice I	2
SPE 4258	Theory of Clinical Practice II	2
SPE 4259	Nature & Etiology of Stuttering	3
SPE 4260	Practicum in Speech Pathology I	3
SPE 4261	Practicum in Speech Pathology II	3

### PROFESSIONAL EDUCATION 26

SPE 1250	Preadmission Field Experience in Speech and Hearing	3
ICA 3610	Elem. Curr. and Methods	3
ID 3201	Educational Psychology	3
ID 4253	Orientation to Psych. Testing	3
SPE 4262	Diagnostic Methods in Speech Language Pathology*	3
SPE 4203	Student Teaching	8
One course in foundations:		
ID 2200	Teacher, School and Society or	
ID 4250	School and Society: Cultural Minority and Urban Education	3

TOTAL 129

\*Course under revision—see the coordinator

# B.A. TEACHER OF THE HANDICAPPED

Coordinator: Dr. David Barnhart  
CSE113 Ext. 2264

Students in the teacher of the handicapped program will prepare to teach children who are mentally retarded, neurologically or perceptually impaired, emotionally disturbed, physically handicapped or multiply handicapped. The state certificate in teacher of the handicapped is valid for grades K-12. Teacher certification requirements include the satisfactory completion of field experiences in the sophomore and junior years. A full semester of student teaching is required during the senior year.

Students may be interested in pursuing positions in public and private school teaching, sheltered workshops, group homes, supervised apartments, programs for handicapped adults and with private agencies for the handicapped.

### GENERAL EDUCATION 57

#### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World	3

#### BREADTH REQUIREMENTS 33

*\*Humanities 9*  
(from at least 3 disciplines)  
STM 1900 Speech Communication 3  
Select two courses from:  
Fine Arts or Art History  
Foreign Languages  
Music  
Philosophy or Religion

*Social/Behavioral Sciences 9*  
Psy 1000 General Psychology 3  
Soc 1000 Social Life and Society 3  
Soc 2100 Sociology of Family or  
SW 2900 Introduction to Social Work or  
PS 3650 Juvenile Justice

*\*Biological and Physical Sciences 4*  
Astronomy Geology  
Biology Meteorology  
Chemistry Physics

*\*Mathematical Sciences 3*  
*Health and Physical Education 4*  
ID 1225 Contemporary Issues in Health 3  
Physical Education 1  
One of the following:  
PEd 1101 Beginning Modern Dance  
PEd 1103 Beginning Jazz Dance  
PEd 1151 Beginning Folk and Square Dance

Electives 4  
(From any of the above \* areas)

**ADDITIONAL REQUIRED COGNATES 6**  
Two of the following:  
Psy 3310 Psychology of Learning  
Psy 3320 Theories of Personality  
Psy 4380 Psychology of Perception

### ACADEMIC SEQUENCE 30

Psy 2100	Child Psychology or	
Psy 2110	Psy. of Adolescence or	
Psy 3110	Life Span Psychology	3
ID 2252	Introduction to Psychology of the Handicapped	3
ID 4235	Orientation to Psychological Testing	3
SPE 2051	The Exceptional Individual	3
SPE 3161	Career Development of Exceptional Youth	3
SPE 3---	Language Development of the Exceptional Child	3
SPE 4262	Signing	3
<i>One of the following: 3</i>		
HED 3300	Comm. Mental Health	
HED 3725	Death in Perspective	
HED 3400	Human Sexuality	
HED 3635	Intro. to Public Health	
HED 2231	First Aid and Accident Prevention	
HED 4333	Alcohol and Narcotics Education	

*One of the following: 3*  
EC 3600 Developing Parenting Skills  
EC 3510 Child Advocacy  
ID 3200 The Family as Educator

*One of the following: 3*  
PEd 1500 Introduction to Motor Learning  
PEd 2500 Introduction to Biomechanics  
PEd 3101 Creative Movement for Selected Population  
PEd 4600 Adapted PED  
Rec 3300 Recreation for Special Populations  
Rec 3730 Therapeutic Recreation with the Socially and Emotionally Disabled

### BEHAVIORAL/SOCIAL SCIENCES 9

ID 3201	Educational Psychology	3
ID 4250	School & Society: Cultural Minority & Urban Perspectives	3
ID 2200	Teacher, School & Society	3

### PROFESSIONAL EDUCATION 30

*Any two of the following: 6*

SPE 2154	Intro. to Mental Retardation	
SPE 2155	Intro. to Learning Disabilities	
SPE 2156	Emotionally Disturbed	
SPE 2157	Severely Multiply Handicapped	
CS 3400	Reading in Elementary School	3
SPE 3171	Special Education Methods and Curriculum I	3
SPE 3172	Special Education Field Exp. I (concurrent with SPE 3171)	1
SPE 3173	Special Education Methods and Curriculum II	3
SPE 3174	Special Education Field Exp. II (concurrent with SPE 3173)	1
SPE 4134	Student Teaching	10

*One of the following: 3*  
ICA 3102 Science and Math for Special Populations  
SPE 4151 Arts and Crafts for Exceptional Children  
SPS 4900 Guidance  
IS 4001 Technology for Children—Early Childhood & Elementary School Industrial Arts  
LM 4700 Audio Visual Media of Instruction  
Mus 3400 Therapeutic Use of Music

### FREE ELECTIVES 3

TOTAL 129

# B.S. IN TECHNOLOGY

Chairperson: Dr. Daniel Cokewood  
H110 Ext. 2063

The Industrial Technology program is designed to prepare individuals for technical-managerial, production-supervisory and related types of professional leadership positions. The curriculum is built on technical education and has a balanced program of studies drawn from a variety of disciplines relating to business and industry. Included are a sound knowledge and understanding of materials and manufacturing processes, principles of distribution and concepts of industrial management and human relations: experiences in communication skills, humanities and social sciences; and a proficiency level in the physical sciences, mathematics, design and technical skills to permit the graduate to capably cope with typical technical managerial and production problems. The program is fully accredited by the National Association of Industrial Technology.

**Industrial Studies Scholarships** are available for qualified students. See Financial Aid section.

### Option: Design

### GENERAL EDUCATION 52-53

**CORE REQUIREMENTS 19**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2091	General Physics I	4

### BREADTH REQUIREMENTS 33-34

*Humanities 12*  
STM 1900 Speech Communication 3  
Select three courses from at least two of the following areas:  
Foreign Languages  
†Fine Arts or Art History  
†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*  
Psy 1000 General Psychology 3  
Eco 1020 Principles of Economics I 3  
Eco 1021 Principles of Economics II 3  
Select one course from the following areas:  
History  
Political Science  
Sociology or Anthropology

*Biological and Physical Sciences 4*  
Phy 2092 General Physics II  
*Mathematical Sciences 3*  
Mat 1052 College Algebra and Trigonometry 3  
*Health and Physical Education 2-3*  
Health Education  
Physical Education

### COGNATE COURSES 9

Mat 1053	Analytical Geometry	3
Mat 2411	Calculus I	3
CpS 1031	Computer Arithmetic Algorithms	3

### MAJOR REQUIREMENTS 65

T 1901	Intro. to Industrial Technology	2
T 2201	Technical Drafting	3
T 2900	Prep. Technical Documents	3
T 2403	Material Science	3
<i>Area Specialization 27</i>		
T 3200	Design Fundamentals	3
T 3201	Model Design	3
T 4206	Technical Illustration	3
T 4207	Design Delineation	3
T 4210	Design Application	3
T 4211	Design Studio	6
<i>Electives* 6</i>		

*Management 15*  
Acc 2200 Principles of Accounting 3  
MgS 3030 Personnel Management 3  
MgS 3410 Basic Marketing 3  
T 3900 Industrial Statistics & Quality Control 3  
T 3903 Industrial Purchasing 3  
*Major Electives\* 12*  
*\*Selected with approval of area advisor*

TOTAL 126-127

### Option: Graphic Arts

### GENERAL EDUCATION 52-53

**CORE REQUIREMENTS 19**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2091	General Physics I	4

**BREADTH REQUIREMENTS 33-34**  
*Humanities 12*  
STM 1900 Speech Communication 3  
Select three courses from at least two of the following areas:

Foreign Languages  
†Fine Arts or Art History  
†Music  
Philosophy or Religion  
*Social and Behavioral Sciences 12*  
Psy 1000 General Psychology 3  
Eco 1020 Principles of Economics I 3  
Eco 1021 Principles of Economics II 3  
Select one course from the following areas:  
History  
Political Science  
Sociology or Anthropology

*Biological and Physical Sciences 4*  
Phy 2092 General Physics II  
*Mathematical Sciences 3*  
Mat 1052 College Algebra and Trigonometry 3  
*Health and Physical Education 2-3*  
Health Education  
Physical Education

### COGNATE COURSES 9

Mat 1053	Analytical Geometry	3
Mat 2411	Calculus I	3
CpS 1031	Computer Arithmetic Algorithms	3

### MAJOR REQUIREMENTS 65

T 1901	Intro. to Industrial Technology	2
T 1200	Elements of Drafting	3
T 2900	Prep. Technical Documents	3
T 2403	Material Science	3
<i>Area Specialization 27</i>		
T 2601	Adv. Letter Press	3
T 2602	Screen Process	3
T 3603	Black and White	3
T 3604	Color Photo I	3
T 3605	Color Photo II	3
T 4606	Litho. I	3
T 4607	Litho. II	3
T 4608	Color Separation I	3
T 4609	Color Separation II	3

*Management 15*  
Acc 2200 Principles of Accounting 3  
MgS 3030 Personnel Management 3  
MgS 3410 Basic Marketing 3  
T 3900 Industrial Statistics & Quality Control 3  
T 3903 Industrial Purchasing 3  
*Major Electives\* 12*  
*\*Selected with approval of area advisor*

TOTAL 126-127





# SCHOOL OF EDUCATION, TECHNOLOGY, AND RELATED PROFESSIONS

## Course Descriptions

Communication Sciences and Educational Services		
Dr. Albert Mazurkiewicz	J205B	2070
Early Childhood and Family Studies		
Dr. Michael Knight	B102F	2094
Instruction, Curriculum and Administration		
Dr. Myra Weiger	W105D	2175
Physical Education, Recreation and Health		
Dr. Dolores Shiposh	D130E	2101
Special Education and Individualized Services		
Dr. Elaine Fisher	CSE102	2264
Technology		
Dr. Daniel Cokewood	H-110	2063

## COMMUNICATION SCIENCES AND EDUCATIONAL SERVICES

The Department of Communication Sciences, a composite of content in reading, library/educational media, and educational psychology focuses on the improvement of the learning process and instruction through the study and utilization of print and non-print resources.

## Library/Media Courses

### Resources and Services

#### LM 1500 Locating Information in Library Resources (3)

Designed to develop research skills through the investigation and study of college and public library resources.

#### LM 3000 Introduction to School Media Services (3)

The role of the school media center: its growth and development as an integral part of the education process; its current function as an instructional materials center with collections of both print and non-print materials. Investigation of rationale and functions, stressing the leadership role of the media specialist.  
*Schwartz*

#### LM 3010 Information Retrieval and Reference Sources (3)

Acquaintance with and use of basic information and reference sources for print and non-print media; dictionaries, encyclopedias, yearbooks, almanacs, atlases, gazetteers, biographical fact books, periodical indices, and non-print catalogs and directories. Emphasis on selection, evaluation, collection building and development of an information search technique.

#### LM 3020 Subject Approach to Multi-Media Services (3)

Emphasis on the information and knowledge found in curricular areas. Analysis of print and

non-print media and the further development of the information search technique in support of instructional development, and construction of multi-media bibliographies.  
Prerequisite: LM 3010.

#### LM 3030 Organization and Arrangement of Print and Non-Print Collection (3)

Classification and cataloging of library/media materials. Considers alternative methods of instruction, accessioning, processing, and storage of a variety of media forms. Emphasis on terminology, construction of catalogs (card and book), and inventory/audit control.  
*Schwartz*

#### LM 3060 Business Information Sources for Management Science (3)

Survey of existing business information sources, examination of specialized collections in libraries, and analysis and application of such information to business and industry.

#### LM 4000 Management and Administration of the Modern Library/Media Center (3)

Organization and operation of both the services and instructional design consultation in the learning process, and curriculum development.  
*Schwartz*

#### LM 4010 Media Selection for Children and Young People (3)

Techniques in selection and evaluation of both print and non-print items of many types. Major emphasis upon individual acquaintance with a broad cross-section of materials through extensive critical reading, listening, and viewing. Knowledge of general and specific selection aids, in understanding of physical format and assessing potential use. Practice in the art of storytelling, book talks and multi-media presentations.  
*Schwartz*

#### LM 4040 Library Science Practicum in the Field (3)

The student will gain experience one day or two half-days a week in the field, observing and participating in the activities and operations of a library/media center at the elementary, junior and secondary level.  
Prerequisites: LM 3010, 3030 and 4010.

#### LM 4050, 4051, 4052 Independent Study in Library/Media (1, 2 or 3)

Opportunity for students of advanced ability to pursue in a concentrated but informal manner a specific area of study in library/media (print or audio-visual) education not available through current course offerings.  
Prerequisites: Approval of coordinator and faculty member.

## Media/Technology

### LM 4700 Audio-Visual Media of Instruction (3)

General principles, problems and practices involved in the selection, utilization and evaluation of audio-visual instructional media, materials, resources and experiences. The preparation of teacher-made and student-made audio-visual instructional materials. Practice in the operation and general care of audio-visual instructional materials. Practice in the operation and general care of audio-visual equipment. Exposure to newer technologies and learning systems.

### LM 4701 Planning and Producing Audio-Visual Materials (3)

Laboratory experience in the preparation and production of audio-visual materials such as transparencies, graphics, simple photography (35mm slides and 8mm film), and auditory media.  
Prerequisite: LM 4700.

### LM 4703 Educational Television: Theory and Practice (3)

Opportunity for students to plan, produce, and evaluate instructional television programs utilizing portable and fixed studio equipment.  
*Merlo*

### LM 4705 Film as an Educational Medium (3)

Development, unique impact and status of the educational motion picture. Investigation of the physical characteristics of the medium and its place in the teaching-learning process. Preview and evaluation of a variety of current releases.  
Prerequisite: LM 4700.

*Schwartz*

## Field Experience

### LM 3900 Classroom/Media Center Field Experience (3)

Experience in the field, observing and participating in the basic activities and operations of an elementary classroom and a library/media center.  
*Schwartz*

### LM 4900 Library/Media Center Senior Practicum (3)

An in-depth experience doing professional level work in a school/library media center under the guidance of a cooperating, certified and experienced library/media specialist and a college supervisor. The student will participate in the administrative, educational and technical processes of the center.

Prerequisites: LM 3000, 3010, 3020, 3030, 4000.

*Schwartz*



## Communication Sciences Courses

### Developmental Courses

Degree credit not granted for these courses.

#### CS 0410 Study Skills Laboratory (NC)

Practical study techniques, adapted to individual learning styles, demonstrated and utilized to improve learning strategies. One hour per week required in the Study Skills Center.

#### CS 0411, 0412, 0413 Reading Improvement (3 per course)

A sequence of three courses designed to develop proficiency in reading with a specific emphasis on vocabulary development and comprehension skills. Demonstration of college level performance concludes a student's participation in the course sequence. Laboratory requirement. Sequence of 0411, 0412, 0413 is not expected to be repeated. *Credit hours not applicable for degree requirements.* Required for freshmen not meeting basic skills competency test level.

Prerequisites: CS 0410 for CS 0411 and/or competency level; CS 0411 for CS 0412; CS 0412 for CS 0413.

### College Level Reading and Study Skills

#### CS 1501 College Reading and Study Skills (3)

Reading and learning skills are programmed to increase efficiency in these areas. Skills include speed of comprehension, areas of comprehension, vocabulary and the study skills of concentration, note-taking, time-scheduling and test-organization. Recommended as an elective for those students who seek a strong development program in learning.

#### CS 2500 Speed Reading (3)

Designed for students who read well but would like to increase speed and efficiency. Speed reading techniques will be demonstrated and applied to several kinds of reading material.

#### CS 3450 Analytic and Critical Reading (3)

Designed for the student who possesses grade appropriate vocabulary and comprehension skills and is interested in developing higher competencies in reading. Course does not meet 6 hour state certification reading requirement.

Prerequisite: Course limited to students who are not enrolled in developmental course.

## Reading Education

All of the following courses in reading education include a study of appropriate trends and techniques for teaching students from a variety of cultural backgrounds.

#### CS 3400 Experiences in the Teaching of Reading in the Elementary School (3)

A detailed study of a productive reading program from its beginning through the eighth grade in a variety of cultural settings. Emphasis is on materials, methods, research results and program trends.

#### CS 4400 Advanced Reading Techniques: Elementary Level (3)

Knowledge about the total field of reading is broadened. Assessment of reading progress and reading in the content areas are studied. Development of specific skills in multicultural settings is emphasized.

#### CS 4401 Linguistic Approaches to the Teaching of Reading (3)

Designed to develop an understanding of reading as part of the total language spectrum, and as an information-seeking process. Attention focused on the application of psycholinguistic theory to reading instruction and materials for diverse populations.

Farber

#### CS 4402 Reading Disabilities (3)

Diagnostic and remedial procedures for teacher use in working more effectively with remedial readers (in a culturally diverse world).

Andrews, Welle

#### CS 4403 Foundations in Content Reading: Secondary Level (3)

The reading curriculum in grades 7 through 12. Reading in the content areas, critical reading, methods, and the organization of a developmental reading program.

#### CS 4404 Practicum in Reading (3)

Student interns engage in field experiences with diverse populations in cooperation with an identified specialist in a school approved by the department, in the Reading and Study Skills Center or in other centers such as the New Jersey Manpower Training Center. Seminar sessions scheduled.

Andrews, Welle

#### CS 4405 Reading in Early Childhood Education (3)

Learning to read as related to the development of language and readiness of the young child. Materials and methods that prepare children from multiethnic backgrounds for reading and beginning reading programs.

Carmichael

#### CS 4406 Advanced Reading Techniques: Secondary Level (3)

Reading in content areas with emphasis on study skill development, the development of specific comprehension skills, and the uses of innovative materials and techniques.

Prerequisites: CS 4400 or 4403.

#### CS 4407 Reading in Content Area I (2)

Reading in the content areas, critical reading, methods and the organization of a developmental reading program.

#### CS 4408 Reading in Content Area II (2)

Reading in content areas with emphasis on current trends in secondary reading, the development of specific comprehension skills, and the uses of innovative techniques, materials and computer software.

Prerequisites: CS 4400 or 4407.

#### CS 4410 Sociolinguistics and Reading (3)

A study of regional and social variation in American English; an analysis of non-standard dialects and major factors of linguistic divergence causing reading difficulties.

Prerequisite: CS 3400 or permission of instructor.

Farber

#### CS 4490 Reading in Society (3)

Perspectives on the varied functions of reading in society. An exploration of the historical, political, economic and pedagogical aspects of literacy. Does not fulfill reading requirements for state certification.

Schwartz

#### CS 4497, 4498, 4499 Independent Study in Reading (1, 2 or 3)

Opportunity for students of advanced ability to pursue in a concentrated but informal manner a specific area of study in reading education not available through current course offerings.

Prerequisites: Approval of coordinator and faculty member.

#### CS 4580 Plain Language in Consumer Documents (3)

Examination of legal and bureaucratic language and studies of text comprehension as they apply to the design and revision of consumer documents in accordance with Plain Language Legislation.

Schwartz

## Interdisciplinary Courses

#### ID 3204 Foundations of Reading: Theory and Practice (3)

#### ID 4203 Foundation in Content Reading: Theory and Practice (3)

## Educational Psychology Courses

#### ID 3801 Educational Psychology (3)

An analysis of learning theory and its application. Considers cognition, motivation, tests and measurements.

Prerequisite: A course in general psychology.

#### EdP 3802 Educational Psychology of the Disadvantaged Urban Child (3)

Designed for the student interested in the learning process as it relates to children from urban environments and differing urban cultures. Some topics considered include: the myth of cultural deprivation, development of self-concept, behavioral characteristics and standardized testing. Attention given to successful innovative techniques, especially in the language arts.

Prerequisite: EdP 3801.

Hart

#### EdP 3803 Educational Psychology of the Adult Learner (3)

This course examines the physical, social, psychological and educational variables that affect adult learners; included are applications of assessment techniques for adults, theories of learning and motivation, and a survey of training programs for adults. (May not be used for teacher certification programs).

Prerequisite: Psych 1000.

#### EdP 4802 Introduction to Educational and Psychological Research (3)

An introduction to the steps involved in educational and psychological research; the use of source materials; and a survey of basic statistical concepts.

Prerequisite: Junior or senior standing.

Cohen

#### EdP 4804 Introduction to Behavior Modification for Teachers (3)

Intensive review of the principles of learning and ways in which they may be translated into educational practice. Students carry out projects designed to modify the behaviors of regular and special classroom pupils and to effect the self-modification of the teacher's own behavior.

Prerequisite: Six semester hours of psychology.

Fanelli

#### EdP 4808 Group Dynamics II (3)

Refinement of interpersonal and group skills such as observing and recording behaviors, listening and clarifying communications. Practice in assertion and leadership. Attendance is required. Limited to seniors. Prerequisite: Group Dynamics I or permission of instructor.

#### EdP 4901 Programs and Strategies in Training and Development (3)

Study of model programs in training and development in business, industry and other organizations; development of skills in the design and presentation of training programs; techniques of planning, implementation and evaluation; and impact of training programs within organizations.

#### EdP 4902 Internship/Seminar in Training and Development (4)

Supervised on-site placement of 150 hours in business, industry and other non-school settings, using skills in training and development. Four required on-campus seminars. Internship offered in cooperation with Kean College Cooperative Education Program.

Prerequisites: EdP 4901 and acceptance into the Collateral in Training and Development Program.

## Interdisciplinary Courses

The following are found in the Interdisciplinary courses section. (See Index.)

#### ID 3201 Educational Psychology (3)

#### ID 4201 Group Dynamics (3)



Early Childhood Courses

Introductory

**EC 1000 Developing Skills of Child Care Staff Who Work With Families (2)**

A beginning course to help child care staff interact with families in productive ways.

**EC 1010 Overview of Early Childhood Education for High School Students (1)**

Course explores basic concepts, issues, curricula areas and career opportunities in early childhood education.

Prerequisites: Completion of high school junior year with at least a "B" average or with permission of guidance counselor.

**EC 2900 Field Experience in Multicultural Early Childhood Settings (3)**

An observation and analytical study of teaching and learning in multi-cultural urban and suburban early childhood settings; includes 10 full days of guided visits to early childhood settings.

Prerequisites: Eng 1020 and STM 1900.  
*Searson, Mahan*

Language

**EC 3100 Exploring Books with Young Children (3)**

An analysis of literary trends in literature for the young child. Development of proficiency in methods of selecting literature, techniques for storytelling, and writing for young children.  
*Handler, Peters*

**EC 3110 Language Arts in Early Childhood Education (6)**

Development of basic language skills—listening, speaking, reading, writing, spelling—in young children. Special emphasis on prereading and formal reading instruction in the primary grades. Included as part of junior professional semester.

*Allen, Dorsey-Gaines*

**EC 4100 Creative Techniques for Oral Language Development (3)**

Students will examine materials and practices in the use of a variety of creative teaching strategies aimed at oral language development in children. Includes analysis of creative processes, role playing, and problem solving, movement learning, improvised drama, choral speaking, and puppetry. Emphasis on practical field applications.

Prerequisite: EC 3200.

*Dumais*

Curriculum and Methods

**EC 1200 Introduction to Early Childhood Education (3)**

The first in a 15 hour sequence to qualify as a group teacher in an approved early childhood center. Emphasis is on how to observe and record the behavior of young children. The student also learns how to interpret the meaning of a child's behavior. Course requires a total of 10 hours of actual observation in the field.

Prerequisite: High school equivalency.

*Dorsey-Gaines, Mahan*

**EC 3200 Child Development and the Early Childhood Curriculum I (6)**

The first part of a twelve-semester hour sequence showing the development of the curriculum for children of the nursery, kindergarten and primary grades. New aims, approaches, methods and materials in early childhood education that have been derived from current knowledge and research in child development.

Prerequisite: Psy 2100 and one of the following: EC 1200, 3100, 3210. Certification students must take EC 3200 and EC 1200, 3100 or 3210 for a total of nine hours.

*Dorsey-Gaines, Searson*

**EC 3210 Working with the Infant and Toddler in a Childcare Setting (3)**

Exploration of infancy, birth through three years; focusing on cognitive, affective and sensorimotor growth. Seminars on campus and at infant child care centers to observe growth patterns of infants and to develop infant care curriculum.

*Handler*

**EC 3220 An Educational View of Young Children Through Film (3)**

Through viewing selected films, the student will contrast and compare child rearing practices and educational systems across cultures. Emphasis will be on children from birth through age 8.

**EC 4200 Child Development and the Early Childhood Curriculum II (6)**

Emphasis on program for the primary grades. Various curricular approaches used in different school systems studied. Functional learning experiences for children of different ages, maturity levels and abilities in the primary grades explored by the students. Integration of subject areas i.e. science, mathematics, social science, language arts, crafts, art, music and physical education shown. Students helped to understand the parents' and child's point of view and to know specific techniques and materials for reporting to parents.

Prerequisites: EC 3200.

*Knight*

**EC 4210 Multicultural Education in the Early Childhood Years (3)**

Designed to prepare preservice and inservice professional working with young children to create educational environments which promote multicultural understandings.

*Dorsey-Gaines, Dumais*

Student Teaching

**EC 3400 Student Teaching in Early Childhood Education I (2)**

Experience in teaching in a nursery school or day care center under the guidance and direction of a cooperating teacher and college supervisor during the junior year.

Prerequisite: EC 3200.

**EC 4400 Student Teaching in Early Childhood Education II (10)**

Assignment to first, second or third grade during the senior year.

Prerequisite: EC 3400 and 4200.

Seminars and Independent Study

**EC 4500 Seminar in Early Childhood Education (3)**

Designed to enable the student to develop analytical and critical insights in the practical application of theory of teaching based upon experiences. Opportunity is provided to discuss students' concerns, the teacher as professional with children, colleagues, administrators, parents and community in a multicultural world.

*Knight, Searson*

**EC 4510 Independent Study in Early Childhood Education (3)**

This senior study is designed to extend knowledge, attitudes, and skills through individual experience and interpretation in the field of early childhood education. Methods of inquiry are examined as a prelude to independent study.

Prerequisites: EC 3110, 3200 and instructor's approval.

Family Studies

**EC 3610 Child Advocacy: Implications for Helping Practitioners (3)**

To help practitioners understand issues, area of advocacy, and intervention techniques directed toward services and institutions that affect the lives of children, birth through nine years, in a multi-cultural society.

*Handler, Kelly, Mahan*

**EC 3620 Hospitalization and the Child (2)**

Opportunities to develop and demonstrate one's ability to work in a hospital playroom setting. A minimum of twenty hours will be spent in that particular setting.

Prerequisites: Psy 2100, 2110.

**EC 3630 Instituting a Child Life Program in a Hospital Playroom (3)**

Understanding the mechanics involved in formulating and instituting a child life program through at least twenty hours of practical experience in a hospital playroom.

Prerequisites: Psy 2100, 2110, and EC 3620.

**EC 4325 Practicum: Educational Implications for Serving Families (6)**

Practicum in a specific human service organization such as: day care, library, museum, legal center, hospital ward, clinic, or youth service bureau with concurrent seminar to develop skills in helping families actualize their educative understandings and abilities. Prerequisites: Junior or senior standing and enrollment in Family Studies Collateral. Soc 2100, EC 3800, 3610 and joint advisement by instructor and major departmental advisor. (This is of special importance to social work students for whom certain requirements will be waived because they have been met by social work courses.)

*Kelly, Mahan*

Interdisciplinary Courses

The following courses are found under Interdisciplinary Courses. (See Index.)

**ID 3202 Understanding Parenthood (3)**

**ID 4240 Understanding Family and Community Involvement in Education (3)**



The Department of Instruction, Curriculum and Administration offers a variety of programs in both Elementary Education and Instruction in Subject Areas K-12. In addition, the department offers courses that deal with the philosophical and sociological background of education and with the construction and implementation of educational policies for contemporary society.

## Instruction, Curriculum, and Administration Courses

### Elementary Curriculum and Methods

#### ICA 3610 Elementary Curriculum and Methodology (3)

Elementary school objectives, practices, curriculum patterns and planning techniques. Corequisites: ICA 3610, 3110, 3130, 3140, 3800 and CS 3400 must be taken concurrently by full-time elementary education majors. (Not open to students entering after 9/83).  
*Prince*

#### ICA 3611 Experiences in Curriculum and Methodology for Alternative/Educational Settings (2)

Examination of curricular patterns in correctional settings and in alternative schools. Emphasis on teaching basic survival skills. Corequisites: ICA 3100, 3111, 3802 and CS 3400 taken concurrently by Alt./Cor. students.  
*Amick*

#### ICA 3101 Experiences in Elementary Curriculum Content (4)

Content and methodologies for elementary school instruction in science, social studies and correlating art, health sciences, physical education and health with subject area study. (Limited to Alternative/Corrections majors). Corequisites: ICA 3802, 3611, 3111 and CS 3400 should be taken concurrently by Alternative/Corrections students.  
*Amick, Froude*

#### ICA 3102 (EAS 3108) Science and Math for Special Populations (3)

Adapted science and mathematics curriculum for use with handicapped populations. Use of special education materials and developmental levels in content areas. Prerequisites: One course in elementary college mathematics, laboratory science, and special education.

#### ICA 3110 Experiences in Teaching Language Arts in the Elementary School (3)

Study of the teaching of literature, linguistics, written expression, cursive and manuscript writing, listening, and speaking with some attention to ways of integrating music into the elementary program. Corequisites: ICA 3800, 3120, 3130, 3140 and CS 3400 must be taken concurrently by full-time elementary majors. (Freshmen entering

prior to 9/83 take ICA 3610 in place of 3120).  
*Hennings, Ortiz, Weiger*

#### ICA 3111 Teaching Literature and Basic English Skills in Alternative Educational Settings (3)

Methods of teaching elementary children and youth in correctional and alternative schools literature and basic English skills. Corequisites: ICA 3101, 3611, 3802 and CS 3400 taken concurrently by Alt./Cor. students.

#### ICA 3120 Experiences in Teaching Mathematics in the Elementary School (3)

The nature of mathematics and its implication for teaching. Exploration into teaching techniques, the use of visual and manipulative materials, learning theories as they pertain to mathematics education and current elementary school mathematics programs. Prerequisites: At least one course in elementary college mathematics or Mat 1011, 1012, 1014, or 1016 and demonstrated competence in arithmetic. Corequisites: ICA 3110, 3130, 3140, 3800 and CS 3400 for students entering as of 9/83.  
*Kavett, Kolodiy, Orfan*

#### ICA 3121 Geometry in Elementary School Mathematics (3)

Examination of the role of geometry in the elementary school mathematics program through an experiential and reflective approach. Active participation in exploratory classroom experiences familiarize students with basic geometric concepts and their application to contemporary mathematics problems.  
*Kavett, Kolodiy, Orfan*

#### ICA 3122 Computers in Education (3)

Introductory experience in using the computer, learning computer languages appropriate in educational settings, learning computer applications in educational settings, and examining educational hardware and software.  
*Kolodiy, Orfan*

#### ICA 3130 Experiences in Teaching Science in the Elementary School (3)

A study of science content and teaching methodology including student planning, development and presentation of instructional methods and media. Corequisites: ICA 3110, 3120, 3130, 3140, 3800 and CS 3400 must be taken concurrently by full-time elementary education majors. (Students entering prior to 9/83 take ICA 3610 in place of ICA 3120).  
*Arnold, Froude*

#### ICA 3131 Field Science for Elementary School Teachers (3)

Consideration is given to natural resources, both physical and biological, as applied to elementary school science instruction.  
*Arnold*

#### ICA 3140 Experiences in Teaching Social Studies in the Elementary School (3)

Study of the objectives of elementary school social science, planning techniques, teaching materials, innovative programs and evaluation, emphasizing interdisciplinary approach.

Corequisite: Same as for 3130.  
*Banich, Esposito, Froude*

#### ICA 3410 Teaching Techniques for Bilingual-Bicultural Schools (3)

Examination and evaluation of alternative pedagogical methods and techniques for use in teaching content areas to bilingual-bicultural students in a multicultural-multi-ethnic environment.

*Baldassini, Lozano, Ortiz*

#### ICA 4410 Language and Reading Skills in Bilingual-Bicultural Schools (3)

Techniques of helping bilingual-bicultural students develop language and reading skills in two languages.

*Lozano, Ortiz*

#### ICA 4620 Seminar in Teaching Strategies and Problems (3)

Problems and practices relative to a preservice teacher's professional development and teaching. Students will use category systems to analyze segments of teaching, will work with verbal and nonverbal teaching strategies, will design instructional sequences, and project solutions to problems encountered in teaching. Must be taken the same semester as ICA 4800 or 4801.

Prerequisites: Senior status and ICA 3610. (Not open to students entering after 9/83).  
*Amick, Banich*

#### ICA 4621 Seminar in Teaching in Alternative Educational Settings (3)

Study of teaching strategies for effecting cognitive and affective development of students.

Prerequisites: Senior status and ICA 3611. (Not open to students entering after 9/83). Must be taken the same semester as 4803.

### Independent Study, Service Programs

#### ICA 3900 Education and Community Institution: S.C.A.T.E. (3)

An invitation to students to consider the nature, aims and methods of community institutions in the education of our citizens. Field experience arranged under the auspices of S.C.A.T.E., *Student Committee for Advancement Through Education*.

#### ICA 3901 Student Involvement and Educational Governance (3)

A formal introduction to prevalent issues in higher education and other educational institutions. Weekend seminar off-campus, participation in college community or community service.

#### ICA 3902 Student Participation in College Governance (3)

Student participation in group decision-making by college governance or advisory committees. Relationship of such actions to the total governance of the College and the New Jersey Division of Higher Education.

#### ICA 4910 Independent Study in Instruction, Curriculum and Administration (1-6)

Intensive study in area of elementary and/or secondary education or educational foundations, carried on individually under guidance of a faculty member in education. Open only to seniors enrolled in elementary and secondary education programs with permission of instructor or department chairperson.

### Instruction in Subject Areas—Emphasis, Grades 7-12

*These courses do not meet elementary education major requirements.*

#### ICA 3210 Introduction to English Education: Direct Field Observation (6)

Overview of values, objectives and current patterns of K-12 English instruction. Development of teaching skills through micro-teaching. Directed observations in multi-cultural public school settings. Prerequisite: ICA 2801.  
*Herrick, Weiger*

#### ICA 3220 Introduction to Mathematics Education: Direct Field Observation (6)

Overview of values, objectives and current patterns of K-12 mathematics instruction. Development of teaching skills through micro-teaching. Directed observations in multi-cultural public school settings. Prerequisite: ICA 2801.  
*Kavett, Orfan*

#### ICA 3230 Introduction to Science Education: Direct Field Observation (6)

Overview of values, objectives and curriculum patterns of K-12 science instruction. Development of teaching skills through micro-teaching. Directed observations in multi-cultural public school settings. Prerequisite: ICA 2801.  
*Arnold, Kolodiy*

#### ICA 3240 Introduction to Social Studies Education: Direct Field Observation (6)

Overview of values, objectives and curriculum patterns of K-12 social studies instruction. Development of teaching skills through micro-teaching. Directed observations in multi-cultural public school settings. Prerequisite: ICA 2801.  
*Froude*

#### ICA 3250 Introduction to Foreign Language Education: Direct Field Observation (6)

Overview of values, objectives and curriculum patterns of K-12 foreign language instruction. Development of teaching skills through micro-teaching. Directed observations in multi-cultural public school settings. Prerequisite: ICA 2801.  
*Schuhmann*

#### ICA 4210 English Curriculum and Methods (4)

Application of philosophy and process of English to curriculum development; overview of modern English curriculum (K-12). The production of instructional materials to be utilized in the classroom. Prerequisite: ICA 3210.  
*Herrick, Weiger*

#### ICA 4220 Mathematics Curriculum and Methodology (4)

Application of philosophy and process of mathematics to curriculum development; overview of modern mathematics curriculum (K-12). Production of instructional materials to be utilized in the classroom. Prerequisite: ICA 3220.  
*Kavett*

#### ICA 4230 Science Curriculum and Methodology (4)

Application of philosophy and process of science to curriculum development; overview of modern science curriculum (K-12). Production of instructional materials to be utilized in the classroom. Prerequisite: ICA 3230.  
*Arnold, Kolodiy*

#### ICA 4240 Social Studies Curriculum and Methodology (4)

Application of philosophy and process of social studies to curriculum development; overview of modern social studies curriculum (K-12). Production of instructional materials to be utilized in the classroom. Prerequisite: ICA 3240.  
*Froude*

#### ICA 4250 Foreign Language Curriculum and Methodology (4)

Application of foreign language curriculum in grades K-12. Techniques of planning for instruction and evaluation. Prerequisite: ICA 3250.  
*Edreira, Schuhmann*

### K-12 Curriculum and Methods

#### ICA 3112 Children's Literature in Education (3)

A critical study of children's books and their use in elementary and secondary school classrooms. Prerequisite: English in the Elementary School, a comparable course, or permission of instructor.  
*Lozano, Ortiz, Weiger*

#### ICA 3420 Theory and Practice of Teaching English as a Second Language I (3)

Introduction to the linguistics method, materials and techniques of teaching English as a second language.  
*Lozano*

#### ICA 3421 Theory and Practice of Teaching English as a Second Language II (3)

Analysis of the problems, methodologies, techniques and materials used in teaching English as a second language.  
*Ortiz*

#### ICA 3141 Teaching Ethnic Studies (3)

Study of multi-cultural education highlighting experiences and contributions of ethnic groups in the evolution of American society. Emphasis on teaching techniques and curriculum development for ethnic studies.  
*Esposito*

#### ICA 4622 Experimental Patterns in Education (3)

Innovations and issues in curriculum, instruction and learning theory.  
*Banich, Herrick*

#### ICA 4140 Teaching the Holocaust (3)

Implications of the holocaust for teaching the consequences of prejudice and racism. Emphasis on methods of teaching the holocaust to students.  
*Preil*

### Field Experience

#### ICA 2800 Introductory Field Experiences in Elementary Schools (3)

Observational and analytical study of teaching and learning in urban and suburban elementary schools that includes 10 days of guided visits to schools K-8. Of ICA 2800, 2801 and 2802, students may only take one for credit. Prerequisites: Eng 1020 and STM 1900.

#### ICA 2801 Introductory Field Experiences in Subject Area Instruction K-12 (3)

Observational and analytical study of teaching and learning in multi-cultural urban and suburban educational settings that includes 10 full days of guided visits to schools K-12. Of ICA 2800, 2801, 2802, students may take only one course for credit. Prerequisites: Eng 1020 and STM 1900.

#### ICA 2802 Introductory Field Experiences in Alternative/Correctional Settings (3)

An observational and analytical study of teaching and learning in both alternative/correctional settings and elementary schools that includes 10 full days of guided visits. Of ICA 2800, 2801, 2802, students may take only one course for credit. Prerequisites: Eng 1020 and STM 1900.

**ICA 3800 Field Experiences in the Elementary School (2)**

A three-week period to be spent in observing and participating in an elementary classroom. Course must be taken by elementary education majors concurrently with ICA 3110, 3120, 3130, 3140 and CS 3400. (For students entering before 9/83, 3610 replaces 3120).

**ICA 3802 Field Experiences in Teaching Alternative/Correctional Settings (2)**

Field experience in observing and teaching for six weeks in an elementary school and eight weeks in an alternative/correctional setting, one day a week. Corequisites: ICA 3101, 3611 and CS 3400.

**ICA 4800 Student Teaching (8)**

Full-time unpaid teaching experience for eight weeks to a public school under the direction of a college supervisor and cooperating teacher. Prerequisites: Successful completion of ICA 3616, 3110, 3130, 3140, 3800 and CS 3400. Pre or Corequisite: Successful completion of ICA 4620. Not open to incoming freshmen effective 1983.

**ICA 4801 Professional Internship Elementary Teaching and Curriculum (Full Semester Student Teaching) (10)**

A full semester, full-time unpaid teaching experience in selected teaching centers or placements. Students electing this field experience shall also elect accompanying course work taught on site in elementary centers or on campus. Includes seminars by college supervisors in field locations. Prerequisites: Acceptance into the elementary education program and successful completion of ICA 3110, 3120, 3130, 3140, 3800 and CS 3400.

**ICA 4802 Professional Internship for Subject Area Teachers, K-12 (10)**

A full semester, full-time supervised teaching experience in English, foreign language, mathematics, science or social studies, includes problems-oriented seminars by college supervisors in field locations. Prerequisites: ICA 3210, 3220, 3230, 3240, 3250. Corequisites: ICA 4210, 4220, 4230, 4240, 4250.

**ICA 4803 Professional Internship in Alternative/Correctional Settings Teaching and Curriculum (10)**

A full-semester, full-time supervised teaching experience in alternative/correctional settings and elementary schools. Observe specialists in physical education, health, art, music, speech and reading. Seminar on teaching responsibilities. Prerequisites: ICA 3101, 3111, 3120, 3611, 3802 and CS 3400.

**ICA 4804 Field Experiences in a Bilingual Setting (3)**

Individual projects carried out by means of observations and visits to schools and community agencies that function in a bilingual setting and serve a bilingual population, as well as the sharing and analysis of the results and ideas culled from these experiences.

**Foundations**

**ICA 4020 Historical Perspectives in American Education (3)**

Examination of the impact of humanistic thought and cultural pluralism in the formation of educational policy. Franklin

**ICA 4021 Philosophical Perspectives of Education in a Pluralistic Society (3)**

Examination of the educational implications of life and work in a culturally diverse society. Healy, Tehie, Welch

**ICA 4022 Education and Social Change (3)**

Examination of the forces which shape and are modified by the educational process. Discovery of the ways this happens. Where appropriate, applications for the improvement of the educational process. Welch

**ICA 4023 Comparative Education (3)**

Selected issues in education in cross-national perspective with particular attention to England and the Soviet Union. Multicultural aspects in their historic, socio-economic and political setting. Welsh, Williams

**ICA 4024 Education in the Non-Western World (3)**

An analysis of the role of education as an agent of social, economic, and political development in the non-western world. An appraisal of the impact of UNESCO and American programs of technical assistance, developing education and human resources, on the national development of these countries. Williams

**ICA 4025 Social Psychological Issues and the American Teacher (3)**

Involvement of prospective teachers and citizens in discussions of major social issues facing the nation. Values and attitudes questioned, compared and examined for their effect on classroom teaching and interpersonal relationships. Allen

**ICA 4026 School and Society in the Soviet Union (3)**

The role played by cultural and educational forces in the Soviet drive for world power, Russian and Soviet history, economics, philosophy and art, as well as the lives of selected individuals, are studied in order to understand the formal and informal processes of education. Williams

**Interdisciplinary Courses**

The following courses are found under *Interdisciplinary Courses*. (See Index).

**ICA 2200 Teacher, School, and Society (3)**

**ICA 3251 Foundations of Bilingual Education (3)**

**ICA 4250 School and Society: Cultural, Minority and Urban Perspectives (3)**

**ICA 4251 Bilingual Child: Language and Culture (3)**

**ICA 4252 Bilingual Child: Problems of Adjustment to American Culture (3)**

**NOTE CONCERNING COURSE NUMBERS IN INSTRUCTION, CURRICULUM AND ADMINISTRATION**

The numbers for all courses in Educational arts and systems (EAS) and Educational policy sciences (EPS) recently have been

changed. In this Undergraduate 1986-88 Catalog, the new numbers appear for all courses; the Undergraduate Catalog,

1984-86, however, shows courses under the old numbers. A list showing the new numbers and the former numbers is provided below.

New Number	Title	Former Number
ICA 4020	Historical Perspectives in American Education	EPS 4010
ICA 4021	Philosophical Perspectives of Education in a Pluralistic Society	EPS 4020
ICA 4022	Education and Social Change	EPS 4030
ICA 4023	Comparative Education	EPS 4040
ICA 4024	Education in the Non-Western World	EPS 4060
ICA 4025	Social Psychological Issues and the American Teacher	EPS 4070
ICA 4026	School and Society in the Soviet Union	EPS 4080
ICA 3101	Experiences in Elementary Curriculum Content	EAS 3107
ICA 3102	Science and Mathematics for Special Populations	EAS 3108
ICA 3110	Experiences in Teaching Language Arts in the Elementary School	EAS 3110
ICA 3111	Teaching Literature and Basic English Skills in Alternative Educational Settings	EAS 3111
ICA 3112	Children's Literature in Education	EAS 3112
ICA 3120	Experiences in Teaching Mathematics in the Elementary School	EAS 3120
ICA 3121	Geometry in Elementary School Mathematics	EAS 3121
ICA 3122	Computers in Education	EAS 3125
ICA 3130	Experiences in Teaching Science in the Elementary School	EAS 3130
ICA 3131	Field Science for Elementary School Teachers	EAS 3132
ICA 3140	Experiences in Teaching Social Studies in the Elementary School	EAS 3140
ICA 3141	Teaching Ethnic Studies	EAS 3741
ICA 4140	Teaching the Holocaust	EAS 4742
ICA 3210	Introduction to English Education: Direct Field Observation	EAS 3510
ICA 3220	Introduction to Mathematics Education: Direct Field Observation	EAS 3520
ICA 3230	Introduction to Science Education: Direct Field Observation	EAS 3530
ICA 3240	Introduction to Social Studies Education: Direct Field Observation	EAS 3540
ICA 3150	Introduction to Foreign Language Education: Direct Field Observation	EAS 3550
ICA 4210	English Curriculum and Methodology	EAS 4510
ICA 4220	Mathematics Curriculum and Methodology	EAS 4520
ICA 4230	Science Curriculum and Methodology	EAS 4530
ICA 4240	Social Studies Curriculum and Methodology	EAS 4540
ICA 4250	Foreign Language Curriculum and Methodology	EAS 4550
ICA 3410	Teaching Techniques for Bilingual-Bicultural Schools	EAS 3151
ICA 3420	Theory and Practice of Teaching English as a Second Language I	EAS 3712
ICA 3421	Theory and Practice of Teaching English as a Second Language II	EAS 3713
ICA 4410	Language and Reading Skills in Bilingual-Bicultural Schools	EAS 4152
ICA 3610	Elementary Curriculum and Methodology	EAS 3100
ICA 3611	Experiences in Curriculum and Methodology for Alternative/Educational Settings	EAS 3101
ICA 4620	Seminar in Teaching Strategies and Problems	EAS 4101
ICA 4621	Seminar in Teaching Alternative Settings	EAS 4102
ICA 4622	Experimental Patterns in Education	EAS 4700
ICA 2800	Introductory Field Experiences in Elementary Schools	EAS 2900
ICA 2801	Introductory Field Experiences in Subject Area Instruction K-12	EAS 2901
ICA 2802	Introductory Field Experiences in Alternative/Correctional Settings	EAS 2902
ICA 3800	Field Experiences in the Elementary School	EAS 3900
ICA 3802	Field Experiences in Teaching Alternative/Correctional Settings	EAS 3901
ICA 4800	Student Teaching	EAS 4900
ICA 4801	Professional Internship—Elementary Teaching and Curriculum	EAS 4910
ICA 4802	Professional Internship for Subject Area Teachers K-12	EAS 4920
ICA 4803	Professional Internship in Alternative/Corrections Teaching and Curriculum	EAS 4930
ICA 4804	Field Experiences in a Bilingual/Bicultural Setting	EAS 4950
ICA 3900	Education and Community Institution: S.C.A.T.E.	EPS 3000
ICA 3901	Student Involvement and Educational Governance	
ICA 3902	Student Participation in College Governance	EPS 3002
ICA 4910	Independent Study in Instruction, Curriculum and Administration	EAS 4202
ID 2200	Teacher, School, and Society	EPS 2000
ID 3251	Foundations of Bilingual Education	EAS 3150
ID 4250	School and Society: Cultural, Minority and Urban Perspectives	EPS 4050
ID 4251	Bilingual Child: Language and Culture	EAS 4150
ID 4252	Bilingual Child: Problems of Adjustment to American Culture	EAS 4151

## Physical Education Courses

### Sport Forms

#### PEd 1000 Beginning Archery (1)

Archery, terminology, safety and fundamental skills. Opportunities will be provided for competition and archery games.  
*Ball*

#### PEd 1005 Badminton I (1)

Includes the skills, knowledge and strategies of badminton.  
*Bakker, Errington*

#### PEd 1010 Beginning Basketball (1)

Fundamental skills, techniques, rules, and concept of play.  
*Bakker*

#### PEd 1015 Bowling (1)

The fundamentals of beginning bowling discussed and demonstrated, particularly the basic approaches and deliveries. Rules and scoring regulations also discussed.

#### PEd 1018 Canoeing (2)

Covers lake and river canoeing techniques. Qualifications for Red Cross Basic Canoeing Certificate will be met. Fee required. Prerequisites: PEd 1081 or equivalent; or successful completion of a swim test (ten minute support fully clothed).  
*Venezia*

#### PEd 1020 Personal Fitness (1)

Development of cardiovascular, cardiorespiratory and musculoskeletal fitness. Covers physiological bases of conditioning.  
*Andzel*

#### PEd 1025 Beginning Fencing (1)

Fundamentals of foil fencing and the rudiments of competition.  
*Errington*

#### PEd 1030 Beginning Field Hockey (1)

Fundamental skills, techniques, rules and concepts of team play in field hockey.  
*Scuderi*

#### PEd 1035 Beginning Football (1)

Basic motor skills and offensive and defensive strategies in football.  
*Andzel*

#### PEd 1040 Beginning Golf (1)

The basic skills of golf examined.  
*Errington*

#### PEd 1045 Beginning Gymnastics (Men's Events) (1)

Required of all male physical education majors and an elective for non-majors. Emphasis on basic gymnastics skills in the six Olympic events for men: floor exercise, vaulting, parallel bars and horizontal bar, pommel horse and still rings. Designed to introduce the student to gymnastics and develop the student's skill.  
*Ball*

#### PEd 1047 Beginning Gymnastics (Women's Events) (1)

Required of all female physical education majors and an elective for non-majors. Emphasis on basic gymnastics skills in the four Olympic events for women: floor exercise, vaulting, uneven parallel bars, and balance beam. Designed to introduce the student to gymnastics and develop the student's skill.  
*Ball*

#### PEd 1055 Lacrosse (1)

Basic skills and techniques necessary to participate in lacrosse games.

#### PEd 1060 Skiing (1)

Suitable for beginning through intermediate downhill skiers. Techniques, conditioning, equipment, and safety addressed. Off campus, fee required (lift tickets and, if appropriate, equipment rental).  
*Shiposh*

#### PEd 1065 Beginning Soccer (1)

Basic skills, techniques, rules and concepts of soccer.  
*Errington, Palgi*

#### PEd 1070 Beginning Softball (1)

Skills, techniques, rules and team strategies of softball.  
*Bakker*

#### PEd 1075 Speedball (1)

Skills, techniques, rules, and concepts of speedball.

#### PEd 1080 Beginning Swimming (1)

The basic swimming skills to provide a feeling of safety in deep water. One-minute support and a minimum of two pool lengths using two different strokes in two different positions. Only those students who cannot swim two lengths of the pool (50 yards) accepted. Prerequisite: Novices or non-swimmers only.  
*Shiposh, Venezia*

#### PEd 1081 Intermediate Swimming (1)

The seven basic swimming strokes, beginner's diving, water games and stunts. Prerequisite: Course is designed for students who can swim for a distance of 50 yards and feel comfortable in deep water.  
*Venezia*

#### PEd 1088 Beginning Tennis (1)

Fundamental tennis skills: forehand and backhand, serve, and volley. Basic singles and doubles strategies and rules.  
*Ball, Shiposh*

#### PEd 1090 Paddle (Platform) Tennis (1)

Covers the basic skills, rules and strategies for effective doubles play. Off-campus facilities used; fee required.  
*Shiposh*

#### PEd 1091 Beginning Racquetball (1)

Racquetball skills: Strategies and rules. Off-campus courts will be used; fee required.

#### PEd 1092 Track and Field (1)

Beginning skills in track and field events.

#### PEd 1095 Beginning Volleyball (1)

Individual skills, techniques, and strategies of power volleyball.  
*Bakker, Palgi, Venezia*

#### PEd 1098 Wrestling (1)

Introduction to the fundamental techniques and strategies of free-style wrestling with emphasis on the biomechanics of the activity.  
*Ball*

#### PEd 2000 Intermediate Archery (1)

Advanced shooting in target archery, target archery tournaments, field archery, field archery tournaments, archery games and novelties. Prerequisite: PEd 1000 or permission of instructor.

#### PEd 2010 Intermediate Basketball (1)

Advanced techniques of offensive and defensive patterns of basketball. Prerequisite: PEd 1010 or permission of instructor.  
*Bakker*

#### PEd 2025 Intermediate Fencing (1)

Advanced foil skills and techniques, and basic epee and sabre skills. Prerequisite: PEd 1025 or permission of instructor.  
*Errington*

#### PEd 2030 Intermediate Field Hockey (1)

Advanced skills and techniques of field hockey, advanced team strategy. Prerequisite: PEd 1030 or permission of instructor.  
*Scuderi*

#### PEd 2035 Intermediate Football (1)

More advanced fundamentals, rules, strategy, concepts and methods of teaching football. Prerequisite: PEd 1035 or permission of instructor.  
*Andzel*

#### PEd 2040 Intermediate Golf (1)

Covers performance, biomechanical analysis of advanced golf skills, and play analysis. Prerequisite: PEd 1040 or permission of instructor.  
*Errington*

#### PEd 2048 Intermediate Gymnastics (Mixed Events) (1)

An elective course open to physical education majors and non-majors. Emphasis on more advanced gymnastics skills in the various Olympic events for men and women. Designed to advance the student's skill and knowledge in gymnastics beyond the basic skills. Prerequisite: Beginning Gymnastics or permission of instructor.  
*Ball*

#### PEd 2065 Intermediate Soccer (1)

Emphasis on intermediate soccer skills, knowledge of offensive and defensive team strategies, and the appreciative aspects of spectating.

Prerequisite: PEd 1065 or permission of instructor.  
*Errington, Palgi*

#### PEd 2082 Advanced Swimming Skills (1)

Course deals with the acquisition of advanced swimming skills, fundamental dives, basic stunts, synchronized swimming, and snorkeling. Equipment needed: snorkel, mask, fins. Prerequisite: Ability to swim front crawl, back crawl, breast stroke and side stroke in comfortable combination for ten minutes in deep water.

#### PEd 2083 American Red Cross Advanced Life Saving (1)

The acquisition of the American Red Cross Advanced Life Saving skills with its underlying Advanced Red Cross Life Saving certification awarded after successful completion of these skills. Equipment needed: snorkel, mask, fins. Prerequisite: Basic Rescue, or an equivalent, or the ability to swim ten minutes using six different strokes with ease.

#### PEd 2088 Intermediate Tennis (1)

More advanced aspects of tennis: spin, overhead smash, drop shot, skills, strategies for the serve-and-volley game. Prerequisite: PEd 1088 or permission of instructor.  
*Shiposh*

#### PEd 2095 Intermediate Volleyball (1)

Intermediate techniques and strategies of power volleyball. Prerequisite: PEd 1095 or permission of instructor.  
*Venezia*

### Dance

#### PEd 1101 Beginning Modern Dance (1)

The body's capabilities for expressive movement, discovering movement, mastering it technically and applying it creatively for expressive purposes.  
*Chaison*

#### PEd 1103 Beginning Jazz Dance (1)

Class provides the student with a basic understanding of contemporary jazz dance technique, both technical and rhythmical.  
*Chaison*

#### PEd 1105 Beginning Ballet I (1)

The historical development, the basic skill technique and the movement vocabulary in classical ballet.

#### PEd 1106 Beginning Ballet II (1)

A continuation of PEd 1105, Beginning Ballet I, placing emphasis upon higher skill levels of ballet vocabulary performance together with rhythmic accuracy, stage performance, and world wide ballet styles. Prerequisite: PEd 1105 or permission of instructor.

#### PEd 1130 Aerobic Dancing (1)

A total exercise experience, combining music and dancing, with emphasis upon development of cardiovascular fitness.

#### PEd 1151 Folk and Square Dance (1)

The techniques, materials and cultural background of folk dance and square dance.

#### PEd 2101 Intermediate Jazz Dance (1)

Development of intermediate level understandings and performance techniques related to jazz dance. Prerequisite: PEd 1103 or permission of instructor.  
*Chaison*

#### PEd 2102 Intermediate Modern Dance (1)

Intermediate experience level of movement techniques, improvisation and choreography. Prerequisite: PEd 1101 or permission of instructor.  
*Chaison*

#### PEd 3100 Creative Dance for Children (3)

Methods and materials in teaching of creative dance to children. Consideration will be given to the significance of creative movement in the education process.  
*Chaison*

#### PEd 3101 Creative Movement for Selected Populations (3)

Methods and materials in the teaching of creative movement for selected populations. Consideration given to the significance of creative movement in the educational, recreational and rehabilitative process.  
*Chaison*

#### PEd 3105 Dance History I (3)

Course traces the historic development of ethnic and social dance. Several visitations to dance performances required. This may involve the purchase of tickets.  
*Chaison*

#### PEd 3106 Dance History II (3)

Course traces the historic development of theatrical dance, dance therapy, dance in education and dance notation in western culture. Several visitations to dance performances required. This may involve the purchase of tickets.  
*Chaison*

#### PEd 3110 Dance Methods and Technique for Physical Education Majors (2)

An intensive semester course in the techniques and teaching methods of modern dance. Required of all physical education majors.  
*Chaison*

#### PEd 3115 Dance Composition (3)

The elements of dance, various types of accompaniment and staging and the relationship of these to dance composition. Prerequisite: PEd 1100 or permission of instructor.  
*Chaison*

#### PEd 3120 Dance Theater (3)

Study of basic techniques used in dance production including staging, accompaniment and learning a repertory dance culminating in a dance performance. Prerequisites: PEd 1102, 2101 or an audition.  
*Chaison*

#### PEd 3160 Folk Dance for Children (1)

Designed to build an extensive repertoire of children's folk dances for teachers, recreational leaders and camp counselors. Techniques of analyzing, teaching and leading folk dancing for children from five through fourteen years of age.

### Coaching and Officiating

#### PEd 3300 Scientific Principles of Coaching (3)

The biomechanical, physiological and psychological elements of coaching. Prerequisites: PEd 1500 or 2500 and PEd 3505 or 3510.

#### PEd 3305 Coaching and Officiating of Swimming (3)

A study of rules, techniques and procedures for officiating swimming meets and the exploration of training methods and meet strategies. Students will be prepared to take a recognized swimming officials rating examination. Prerequisite: PEd 2082 or permission of instructor.

#### PEd 3310 Coaching and Officiating of Baseball (3)

The rules, techniques and procedures for officiating baseball together with the strategies, fundamentals and psychology of coaching. Preparation for a recognized umpires rating examination.  
*Bakker*

#### PEd 3315 Coaching and Officiating of Basketball (3)

Individual strategies, coaching philosophies, player and coach conduct, practice session methods and integration of the coaches' and officials' roles in competitive basketball. Students will be prepared to take a recognized basketball officials rating examination.  
*Bakker*

#### PEd 3320 Coaching and Officiating Field Hockey (3)

Educationally sound coaching and officiating of field hockey studied. Students will be prepared to take a recognized field hockey officials rating examination.  
*Scuderi, Venezia*

#### PEd 3325 Coaching and Officiating Football (3)

Preparation of students to coach and officiate football. Students will be prepared to take a recognized football officials rating examination.

**PEd 3330 Coaching and Administration of Tennis Competition (3)**

Mechanics, physiology and psychology as applied to tennis with the rules, tournament organization and specific coaching techniques of tennis.  
*Shiposh*

**PEd 3340 Coaching and Officiating Volleyball (3)**

Development of the individual skills and team strategies for power volleyball and consideration of coaching and officiating of volleyball. Students will be prepared to take a recognized officials rating examination.  
*Venezia*

**PEd 3345 Coaching and Officiating Softball (3)**

Rules, techniques and procedures of officiating softball together with the strategies, fundamentals and psychology of coaching softball examined.  
*Bakker*

**PEd 3350 Coaching and Officiating Soccer (3)**

Skill and strategy analysis of soccer together with the officiating and rule interpretations of soccer.  
*Errington*

**PEd 3355 Coaching and Officiating of Gymnastics (3)**

Designed to introduce students to the scientific and practical concepts of coaching competitive gymnastics for both men and women, as well as evaluative techniques necessary to become a rated gymnastic official (judge). Prerequisite: PEd 2048 or permission of instructor.

**Scientific Foundations**

**PEd 2500 Introduction to Biomechanics (3)**

The application of biomechanics to human movement, emphasizing physical education activities.  
*Errington*

**PEd 3500 Care and Prevention of Athletic Injuries (3)**

An examination of the most recent practices and procedures in the care and prevention of athletic injuries. A laboratory experience will center around prophylactic support and protective equipment for athletic preparation. Prerequisites: Bio 2402 and PEd 3510.  
*Ball*

**PEd 3501 Advanced Athletic Training (3)**

An in-depth study of on-the-field injury evaluation, management, initial and long-term treatment of athletic injuries. A laboratory experience will center on rehabilitation guidelines with criteria for return to activity. Prerequisites: PEd 3500, 3505, and 3510.  
*Ball*

**PEd 3502 Clinical Experiences in Athletic Training I (3)**

Practical field experiences applying techniques of advanced athletic training in a clinical setting, consisting of 200 hours internship and a weekly seminar to discuss the working experience. Prerequisite: PEd 3500. Corequisite: PEd 3501.  
*Ball*

**PEd 3503 Clinical Experiences in Athletic Training II (3)**

Practical field experiences applying techniques of advanced athletic training in a clinical setting, consisting of 200 hours internship and a weekly seminar to discuss the working experience. Prerequisites: PEd 3500 and 3502. Corequisite: PEd 3501.  
*Ball*

**PEd 3504 Therapeutic Modalities in Athletic Training (3)**

An in-depth examination of the thermotherapy and other rehabilitation modalities used in athletic training. Prerequisite: PEd 3500 or permission of instructor.  
*Ball*

**PEd 3505 Kinesiology (3)**

Analysis of human movement in terms of biomechanics and muscular anatomy. Prerequisite: PEd 2500 or permission of instructor.  
*Ball, Errington*

**PEd 3510 Physiology of Exercise (3)**

The structure and function of skeletal muscles, energy sources, and oxygen requirements for muscular activity. Two lectures and one laboratory per week. Prerequisite: Bio 2402 or permission of curriculum chairperson.  
*Andzel, Palgi*

**PEd 4626 Prescriptive Exercise Programming (3)**

Principles and techniques for evaluating, prescribing, and monitoring exercise in an adult fitness program. Prerequisite: PEd 3510.

**Education and Administration**

**PEd 2600 Camping (3)**

Camp philosophies, campcrafts, camp programs and activities, camp counseling, and campcraft skills. One 3 day weekend in camping situation required; laboratory fee. Satisfactory completion of course will meet requirements of the NJACA and the ACA for Campcraft certification.

**PEd 2610 Adapted Aquatics: Instructor Training Course (3)**

Course of study to prepare instructors of aquatic activities for special populations. Leads to certification by American Red Cross. Prerequisite: Current Red Cross Water Safety Instructor rating or Basic Swimming Instructor Certificate.

**PEd 3600 Play and Rhythm Activities in Early Childhood Education (3)**

Designed to provide the student interested in early childhood education with an understanding and appreciation of the contribution that play and rhythm activities can make towards the development of the whole child concept during this formative stage of growth.  
*Chaison*

**PEd 3605 Water Safety Instructor (3)**

Emphasizes proficiency in all aquatic skills, expertise in teaching Red Cross swimming and water safety skills. The course is recognized by Red Cross certification. Prerequisites: Current Red Cross Advanced Life Saving Certificate acquired or renewed within the last 3 years; a Red Cross Swimmer Certificate or Swim II.

**PEd 3610 Physical Education Curriculum I (4)**

Curriculum development in physical education for grades K-12 in a wide range of cultural settings. Teaching styles, methods, materials and evaluation techniques for movement, team sports, individual sports, aquatics, dance, gymnastics and recreational games in all phases of the program. Integration of physical education with other facets of the school program. A one day per week field experience is required. Prerequisite: Soc 1000.  
*Scuderi*

**PEd 3611 Physical Education Curriculum II (5)**

A continuation of PEd 3610, which is a prerequisite.  
*Scuderi*

**PEd 3615 Physical Education in the Elementary School (1-1/2)**

A laboratory workshop program using classroom, gymnasium and outdoor play space situations to examine methods and materials in physical education for the several grades. Philosophy, objectives, and principles of physical education prepares the student to cooperate effectively with the specialist.  
*Scuderi*

**PEd 4600 Adapted Physical Education (3)**

Theory and implementation of current concepts in physical education for special populations.  
*Ball*

**PEd 4610 Introduction to Organization, Administration and Supervision of Physical Education (3)**

The total physical education program examined in both urban and suburban schools in terms of organization, administration and supervision. Prerequisite: PEd 3610 or 3611.  
*Scuderi*

**PEd 4615 Organization and Administration of Intramural Sports (3)**

History, present status, objective of intramural movement; organization and affiliation with other departments; units of competition from elementary to college level; program of activities; group, team, and individual schedule making and scoring plans; rules, regulations, awards; special administrative problems.

**PEd 4620 Introduction to Administration of Interscholastic Athletics (3)**

Basic organization and administrative procedures that are necessary for an interscholastic athletic program to function.

**PEd 4625 Organization and Administration of Adult Fitness Program (3)**

The principles and practices necessary for the organization and administration of effective adult fitness programs in business and industry.

**PEd 4627 Internship in Adult Fitness in Business and Industry (3)**

Practical field experience applying techniques of adult fitness in a business and industry setting, consisting of 200 hours internship and a weekly seminar to discuss the working experience. Prerequisite: 18 semester hours of collateral requirements.

**PEd 4690 Student Teaching (12)\***

A 16-week experience in full time teaching, 8 weeks each in a public elementary and secondary school, under the guidance and direction of a cooperating teacher and a college supervisor.

Prerequisites: HEd 1100, PEd 1500, PEd 1800, Bio 2402, PEd 2500, PEd 3505 or PEd 3510, PEd 3611, EdP 3801, Psy 2100, 10 semester hours of activities, completion of 90 hours, 2.5 cum in major courses, 65 hour group work experience, physical examination, evidence of active interest in department and college activities.

For those seeking dual certification of Health & Physical Education, additional prerequisites include: HEd 3533 Health electives.

**Social and Philosophical Foundations**

**PEd 2800 Physical Education: Pre-Professional Field Experience (3)**

An observational and analytical study of physical education programs in a multi-cultural society. Approximately one-third of the course involves a supervised field-based experience.  
*Shiposh*

**PEd 4800 The Meaning of Human Movement (3)**

The nature and forms of individual and collective movement. The interrelationships of the physical, intellectual and psychological aspects of movements as it varies with the occurrence. Classroom study and a variety of selected movement experiences. Of particular value to students concerned with movement behavior, both as individuals and as human beings responsible for modifying the behavior of others.

**PEd 4805 Sports and International Relations (3)**

Exploration and analysis of social and political forces in sports and physical education on the national and international level.

**PEd 4820 Physical Education and Education as Observed in Other Countries (3)**

Travel to other countries to visit selected educational institutions examining teaching methodology, curriculum, rehabilitation programs and attitudes in education at large, physical education in particular.

**PEd 4830 Women in Sport (3)**

Survey of the historical, legislative, biophysical, and socio-psychological dimensions of women and sport with a focus on the American women in sport.  
*Shiposh*

**Independent Study**

**PEd 4901 Independent Study in Physical Education (1)**

Supervised research study of a problem in physical education. Prerequisites: Junior or senior physical education major and department chairperson permission.

**PEd 4902 Independent Study in Physical Education (2)**

Supervised research study of a problem in physical education. Prerequisites: Junior or senior physical education major and department chairperson permission.

**PEd 4903 (4900) Independent Study in Physical Education (3)**

Supervised in-depth research study of a selected problem in physical education. Prerequisites: Senior physical education major and department chairperson permission.

**Interdisciplinary Courses**

*The following are found under interdisciplinary Courses. (See Index).*

**ID 1200 Introduction to Motor Learning (3)**  
**ID 4205 Evaluation in Physical Education (3)**

\*Course under revision—see coordinator



## Health Education Courses

**Hed 3150 Personal Health Maintenance (3)**  
Designed to prepare students to become active consumer health participants in the maintenance and promotion of their own and their family's health. Special supplies needed will not exceed \$10.

**Hed 3160 Health Perspectives for Women (3)**

An examination of the unique psychological, sociological, physical and sexual aspects of feminine health. Attention will be directed toward the development of consumer awareness necessary for interaction with the health care system.  
Prerequisite: ID 1225\* or permission of instructor.

**Hed 4100 Independent Study in Health Education (1-3)**

Intensive study in an area of health education implemented by the student under the guidance of a health education member in the department of Health Education and Recreation. Open only to students with permission of the instructor and department chairperson to complete a specific need not available in currently offered established courses.

\*This is the only course which fulfills the General Education Health Education requirement. (See Interdisciplinary Listings).

### First Aid, Safety, Accident Prevention

**Hed 3230 Perspectives in Safety (3)**  
Home, school and industrial safety as it relates to the educated consumer.

**Hed 3231 First Aid and Accident Prevention (3)**

An investigation of accident prevention plus the theory and practice of First Aid and Personal Safety including Cardiopulmonary Resuscitation as recommended by the American Red Cross. At the successful completion of this course, the student will receive the Red Cross Standard First Aid and Personal Safety Certificate.

Blake

**Hed 4231 First Aid Instructor Course (3)**

Essential information and curriculum development required by American Red Cross for certification as an instructor of Standard First Aid and Personal Safety and Cardiopulmonary Resuscitation Basic Life Support.  
Prerequisite: Hed 2231 or current American Red Cross certification in Cardiopulmonary Resuscitation and in Standard First Aid and Personal Safety.

Blake

## Psychological

**Hed 3300 Community Mental Health (3)**  
A study of personality development and human adjustment with an examination of treatment procedures and prevention programs.

**Hed 3700 (3325) Basic Concepts and Issues in Gerontology (3)**

An introduction to processes and problems associated with aging, including the physiological, psychological and sociological aspects of senescence.  
Famighetti

**Hed 3725 (3350) Death in Perspective (3)**

The past, present and future individual and societal concepts of dying, death and bereavement, death education, and exploration of related ethical issues.

Ramoth

**Hed 4775 (4275) Close Encounters of the Institutional Kind: A Gerontology Field Experience (3)**

Designed to stimulate thought on the subject of providing services to the institutional elderly through an actual week-long live-in experience at a geriatric residential care facility.  
Prerequisites: Hed 3700 and three other credits in gerontology or age-related study or permission of instructor.

**Hed 4700 (4300) Seminar in Issues of Gerontology (3)**

Allows students to pursue an in-depth investigation into a specific interest area in gerontology.

Prerequisites: Hed 3700 plus an additional minimum of 9 credits in gerontology or permission of program coordinator.

Famighetti

**Hed 4333 Drug Use and Abuse (3)**

A comprehensive course dealing with alcoholic beverages, narcotics, and other addicting and habit-forming drugs, and the effect of their usage upon the individual and society.

Ramoth

**Hed 4750 (4500) Practicum in Gerontology (3)**

Practicum designed to provide students of gerontology with opportunity for intensive exploration, study and experience in a gerontology setting. A minimum of 105 hours of supervised experience is required.

Prerequisites: Hed 3700 plus an additional minimum of 9 credits in gerontology or permission of program coordinator.

## Sexuality

**Hed 3400 Human Sexuality (3)**

An overview of sex and sexuality in today's society, with implications for evolving male-female relationship, dating patterns, marriage and responsible parenthood.

Darden, Fox, Krueger

**Hed 4434 Contemporary Sexual Issues and Values (3)**

Designed to prepare teachers of human sexuality for both elementary and secondary school levels. Attention given to teaching techniques, curriculum design and program implementation.

Prerequisite: Hed 3400.

Darden

**Hed 4450 Sexual Function and Dysfunction (3)**

Anatomical and physiological aspects of the human reproductive system and their relation to psychosexual maturation. Effects of psychological and sociological factors upon human sexuality.

Prerequisite: Hed 3400 or 4434.

Krueger

**Hed 4725 Human Sexuality in the Later Years (3)**

Course provides an in-depth investigation into specific issues and knowledge of human sexuality in the later years.

Prerequisite: Hed 3400 or permission of instructor.

## Education

**Hed 3506 Health Education in the Elementary School (1½)**

An examination of health services, school health environment, and the school health curriculum at the elementary school level. Special attention will be paid to the role of the elementary school teacher as a health educator.

Blake, Darden

**Hed 3533 Methods and Materials of Health Education in Elementary and Secondary Schools (3)**

Knowledge, methods, skills, curriculum content and organization prerequisites to the implementation of dynamic health education in grades K-12.

Prerequisites: EdP 3801, Hed 1100, 1125 or 1150.

Krueger

**Hed 3537 School and Community Health Program (2)**

The school and community health program, the teacher's role in school and community health services, healthful school environment, and health instruction in the elementary school.

Blake, Darden

## Community Health

**Hed 1600 Animal Control Officer's Training (3)**

Preparation for pending State Certification as Animal Control Officers. Topics include: legal authority for animal control (federal, state, local); procedures for court action; community relations; animal behavior and health; shelter operations field trips.

**Hed 2600 Consumer Health (3)**

Criteria for critical decision making in the selection of health information, health products and health services, investigation of the effects of misconceptions, fads, and quackery in health behavior and attitudes.

**Hed 3600 Nutrition (3)**

Nutritional factors required for daily dietary needs as these facts relate to mental, physical and social performances.

**Hed 3635 Introduction to Public Health (3)**

Prevention, sociological and anthropological aspects, planning, and organization of community health problems and programs.

Chut

**Hed 4650 Community Health Counseling (3)**

An analysis of physical, mental, emotional and social health problems of elementary and secondary school pupils, as well as remedial procedures and handling of confidential records.

## Recreation Courses

**Rec 2901 Foundations of American Recreation (3)**

The chronological development of recreation in America, the various philosophies and the impact of technology on the recreation movement.

**Rec 2903 Lifetime Recreation Activities (3)**

Development of minimum competency in selected individual lifetime physical recreational activities. Fees for use of off-campus facilities will depend upon the activity.

**Rec 2910 Program Organization and Facility Design**

Program organization and facility design of public and private recreational agencies studied.

**Rec 3300 Recreation for Special Populations (3)**

Overview of a special field in recreation orientation focusing on recovery and adjustment to illness or disability.

Valentine

**Rec 3310 Principles and Practices of Therapeutic Recreation (3)**

Course examines principles and practices of administration and leadership in the field of therapeutic recreation. Emphasis placed on learning appropriate and successful techniques for delivery of therapeutic recreation programs.

Prerequisite: Rec 3300 or permission of the instructor.

**Rec 3320 Recreation and the Aged (3)**

Study of recreation services for the aged including concepts relating to the design and delivery of leisure activity programs in the community and the institution.

Prerequisite: Rec 3300, Hed 3325 or permission of instructor.

**Rec 3410 Technical Design of Recreation Areas (3)**

Introduction to basic aesthetic and functional design and construction variables of outdoor and indoor recreation areas and facilities, including parks, playgrounds, recreation centers, marinas and campgrounds. Field trips are required.

Prerequisites: Rec 2100, 3400 or permission of instructor.

**Rec 3420 Management and Maintenance of Recreation and Park Facilities (3)**

Examination of the methods used in the proper management and maintenance of park and recreation facilities, including the general principles and common problems of managing local park systems, recreation areas and facilities as well as the technical maintenance procedures used in normal operations of such facilities. A fieldwork experience is included as part of the course requirement.  
Prerequisite: Rec 3410, 3400 or permission of instructor.

**Rec 3470 Winter Outdoor Recreation Facility Operations (3)**

Detailed examination of the aspects of recreation and tourism operations of winter recreation facilities. Students attend lecture sessions and field experiences dealing with the management and administration of selected winter recreation facilities. Such operations as ski areas, ice skating arenas, winter resorts and winter recreation retail stores studied. Special emphasis on ski area management and construction.

Prerequisites: Rec 2901 and declared recreation major, or permission of the instructor.

**Rec 3500 Commercial Recreation and Tourism (3)**

Analysis of the commercial recreation and tourism industry. Includes a study of participant profiles, types of commercial recreation and tourist enterprises/services, marketing strategies, and national tourism studies. Employment opportunities, trends and issues highlighted. Field visits are required.

Prerequisite: Rec 2901 or permission of instructor.

**Rec 3640 Financing Recreation, Park and Leisure Services (3)**

Introduction to the various types of financing methods used by professional and volunteer workers in recreation agencies. Special emphasis on fundraising, grantsmanship, fees and charges.

Prerequisite: Rec 2910 or permission of instructor.

**Rec 3700 Campus Recreation Programs in Colleges and Universities (3)**

The philosophical base and practical application of concepts related to the organization and administration of campus recreation (intramural sports, sports clubs, facilities, and open recreation programs at the college/university level.)

Prerequisites: Rec 2910, 2903 or permission of instructor.

**Rec 3730 Therapeutic Recreation with the Socially and Emotionally Disabled (3)**

Study of applicable techniques and treatment concepts of therapeutic recreation for persons with social and mental disorders in both community and institutional settings.

Prerequisite: Rec 3300 or permission of instructor.

**Rec 3800 Environmental Recognizance (3)**

Designed to provide awareness of environmental and ecological problems, patterns and relationships. Interdisciplinary strategies of moving from concept to practice affecting urban regions. Explorations of various lengths in the fields and community. A resident field expedition and outdoor laboratory experiences required.

Arnold

**Rec 3900 Social Recreation (3)**

Techniques and methods of conducting social games, mixers, dances, parties and special events for large and small groups of all ages.

**Rec 3903 Recreation Administration, Supervision and Management (3)**

Administrative patterns and management in the various recreational organizations including facilities, financing, equipment and personnel involved in programs and the relationships between organizations.

Special Education Courses

General and Introductory

**SpE 2051 The Exceptional Individual (3)**  
Early detection and proper care of disabilities. Etiology, diagnosis and prognosis, different treatments and programming from birth through adulthood covered. Emphasis on State and Federal legislation for the handicapped.

**SpE 3050 Mainstreaming: Process and Techniques (3)**  
Preparation of education majors to teach mainstreamed children. Includes awareness of legislation, placement decision, attitude development, mainstreaming models and teaching strategies.

Teacher of the Handicapped

**SpE 2154 Introduction to Mental Retardation (3)**  
Emphasis placed on physical, emotional and social characteristics of the mentally retarded. Identification, diagnosis and treatment of the mentally retarded included. Each student expected to spend a minimum of 25 hours in observation and participation in a program for the mentally retarded.  
Prerequisite: SpE 2051.

**SpE 2155 Introduction to Learning Disabilities (3)**  
Overview of theories and practices in psycho-educational diagnosis and remediation of children's learning disabilities. The areas of perception, cognition, language and motivation will be explored in relation to school subject matter and classroom performance. Students expected to participate for a minimum of 25 hours in a program for the learning disabled.  
Prerequisite: SpE 2051.

**SpE 2156 The Emotionally Disturbed (3)**  
Overview of the emotional and social characteristics of the emotionally disturbed. Emphasis is on the theories of causation, evaluation and educational programs available to the emotionally disturbed. Each student is expected to participate for a minimum of 25 hours in a program for the emotionally disturbed.  
Prerequisite: SpE 2051.

**SpE 2157 The Severely Multiply Handicapped (3)**  
Overview of the concept, definition and classification of severely multiply handicapped persons. Emphasis is on learning characteristics, resources and programming. Each student is expected to participate for a minimum of 25 hours in a program for the severely multiply handicapped.  
Prerequisite: SpE 2051.

**SpE 3155 Special Education Methods and Curriculum I (4)**

Basic methods course in special education. Includes historical perspective, resources, legislation, classification, curriculum design, teaching strategies and scheduling. A 40 hour field experience is required.  
Prerequisite: SpE 2154, 2155, 2156 or 2157.

**SpE 3156 Special Education Methods and Curriculum II (4)**

Basic methods course in special education. Includes observation of children, instructional strategies, classroom environment, evaluation, material selection, working with parents, self-evaluation and classroom management. A 40 hour field experience required.  
Prerequisite: SpE 3155.

**SpE 3161 Career Education for the Handicapped (3)**

Overview of theories and practices in career education for the handicapped. Occupational and life skills explored.

**SpE 3171 Special Education Methods and Curriculum I (3)**

Basic methods course in special education. Includes historical perspective, resources, legislation, classification, curriculum design, teaching strategies, scheduling and introduction to computer programs for handicapped students.  
Prerequisite: SpE 2154, 2155, 2156, 2157.  
Corequisite: SpE 2172 Field Experience I.

**SpE 3172 Special Education Field Experience I (3)**

Students spend 1/2 day per week (45 hours) per semester in a selected special education setting. Application of content learned in SpE 3171. Emphasis on case study, curriculum content, basic teaching strategies and scheduling. On-site observation by college supervisors.  
Corequisite: SpE 3171.

**SpE 3173 Special Education Methods and Curriculum II (3)**

Basic methods course in special education. Includes techniques of observation of children, instructional strategies, classroom environment, evaluation, materials selection, working with parents, self-evaluation, classroom management and computer application for handicapped students.  
Prerequisite: SpE 3171.  
Corequisite: SpE 3174.

**SpE 3174 Special Education Field Experience II (1)**

Emphasis on observational techniques, lesson planning, monitoring and reporting pupil progress, selection of materials and classroom structure and management. On-site observation by college supervisors. Students spend 1/2 day per week (45 hours) per semester in a selected special education setting.  
Corequisite: SpE 3173.

**SpE 4134 Student Teaching: Handicapped (8)**

Full-time unpaid teaching experience for eight weeks in an educational setting under the direction of a college supervisor and cooperating teacher. *Freshmen entering after 9/84 will receive ten credits.*  
Prerequisites: Successful completion of 90 credits and SpE 3156.

**SpE 4151 Introduction to Arts and Crafts for Exceptional Children (3)**

Meaningful and interesting manual activities for sequential skill development. Projects are with wood, leather, plastics, metal, ceramics, basketry, cardboard and weaving.  
Prerequisite: SpE 3171.

**SpE 4161 Practicum in Career Education for the Handicapped (3)**

Field experience in a career/vocational program for the handicapped. Supervisory sessions held by faculty. Students spend 8 hours per week in a career education setting.  
Prerequisites: Completion of 15 credits in Career Education for the Handicapped Collateral Program or permission of instructor.

Speech and Hearing/Teacher of the Deaf and Hard of Hearing

**SpE 1250 Introductory Field Experiences in Speech/Language Pathology, Audiology and Education of the Hearing Impaired (3)**

Exposure to individuals with various types of degrees of speech/language and hearing handicaps in various work settings. Includes 10 full days of visits to special classes, schools, clinics and hospitals.

**SpE 2251 Introduction to Speech, Language and Hearing Disorders (3)**

An orientation course for all classroom teachers and the basic course for speech and hearing majors. It presents an introduction to the field of speech pathology with emphasis on the recognition and treatment of speech disorders in school children.  
*Shulman*

**SpE 2254 Phonetics (3)**

English sounds in connected speech, intonation, phonetic dictation, acoustical and anatomical relationships. Application is made to problems of language teaching and disorders of communication.  
*Shulman*

**SpE 2255 Normal Language Development (3)**

A study of the linguistic and psychological bases of the speech and hearing processes. The ontogenetic and phylogenetic development of speech as a communication tool. Implications for the study of speech in psychology, semantics, and thought.  
*LeComte, Shulman*

**Rec 3910 In-Semester Practicum (3)**

A course designed to provide every recreation major, in the junior year, with an opportunity for intensive exploration, study and experience in an operating agency in a chosen field. A minimum of 105 hours of supervised experiences is required.  
Prerequisites: Rec 2901, 3903 and one other major course and permission of instructor.  
*Benson*

**Rec 4500 Internship (5)**

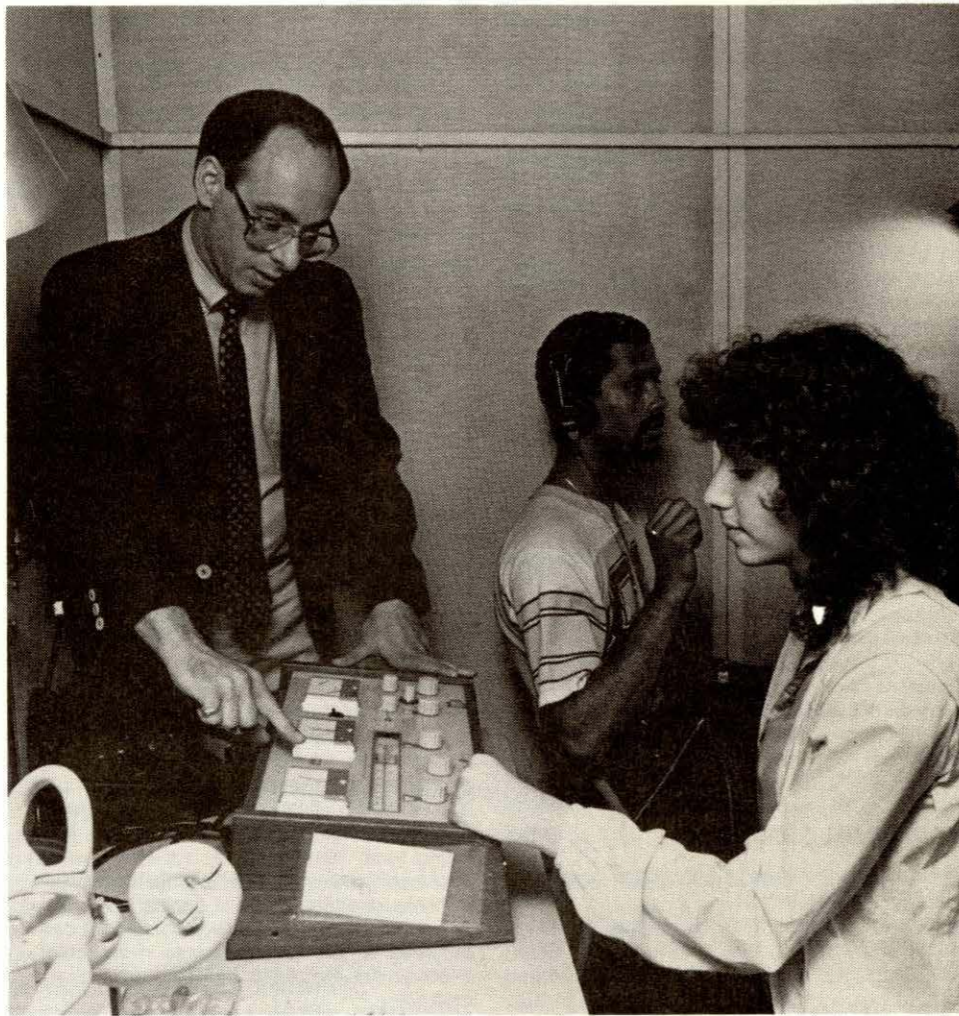
Extended experience in practical application of recreation skills at a cooperating recreation or outdoor education agency. Students will return to campus or an off-campus center for courses. A minimum of 175 hours of supervised experience is required.  
Prerequisite: Permission of instructor.

**Rec 4900 Individual and Group Leadership Skills (3)**

The study of leadership techniques in different recreational organizations and agencies. Principles and procedures for effective leadership will be presented.

**Rec 4903 Senior Seminar—Problem Solving (3)**

Each student is to develop a proposal for a specific area in recreation or environmental interpretation in which s/he has great individual interest. These will provide the basis for seminar discussions. Current problems, trends and developments will be considered.  
Prerequisites: Rec 3910, 4500.  
*Benson*



**SpE 2260 Anatomy and Physiology of the Ear and Speech Mechanism (3)**

A study of the basic structures and functions of the auditory and speech mechanisms. Application of such study is made to the field of audiology and speech pathology.  
*Shulman*

**SpE 3252 Teaching Language to the Deaf and Hard of Hearing (3)**

A review of auditory cognition and language development. Principles and methods of teaching language to persons having communication disorders and auditory deficits. This course meets requirements for certification in the area of teaching the deaf and hard of hearing, and is of particular value to teachers of the mentally retarded who have faulty language development. (Not open to students entering after 9/83).  
*LeComte*

**SpE 3253 Language Disorders (3)**

Review of stages of normal development; discussion of deviations due to hearing impairment, deafness, mental retardation and other syndromes; assessment and remediation strategies.  
Prerequisite: SpE 2255.

**SpE 3256 Disorders of Articulation and Voice (3)**

A study of the nature, etiologies, examination, diagnoses and remedial techniques associated with disorders of articulation and voice. Case discussions and clinic observation.  
Prerequisites: SpE 2251, 2254 and 2260.  
*LeComte*

**SpE 3257 Organic Disorders of Speech and Language (3)**

A study of the nature, etiologies, and remedial techniques associated with aphasia, cerebral palsy, and cleft-palate. Case discussions and clinic observation.  
Prerequisites: SpE 2251, 2254 and 2260.  
*Heller*

**SpE 3259 Basic Audiology (3)**

An introduction to the theory and practice of pure tone and speech audiometry. Interpretations of audiograms for education, medical and industrial applications. Observation and limited clinical experience are made available for the students.  
Prerequisite: SpE 2260.  
*Terr*

**SpE 3262 Aural Rehabilitation (Lip-Reading and Auditory Training) (3)**

A review of auditory and visual perception. Development of skill in using amplification devices, lip-reading tests, and interpretations of audiometric findings. Practical experience in auditory training and lip-reading with individuals and groups of all age levels.  
Prerequisite: SpE 3259.  
*Terr*

**SpE 3263 Methods of Teaching the Hearing Impaired I (3)**

Nature and educational implications of hearing impairment; training in a variety of methods for teaching speech, language, and speechreading; auditory training techniques and devices. 20 hours participation in classroom of normally hearing children required.  
Prerequisite: SpE 2051, 2251.

**SpE 3264 Methods of Teaching the Hearing Impaired II (3)**

Evaluation and assessment of hearing impaired students; interpretation of test results; presentation of assessment instruments; training in application of test results to development individualized education plans; adaptation of materials for hearing impaired; 20 hours participation in classroom of hearing impaired.  
Prerequisite: SpE 3263.

**SpE 4203 Student Teaching (8) or (10)**

Experience in full time teaching in a public school under the guidance and direction of a cooperating teacher and a college supervisor.

**SpE 4257 Theory of Clinical Practice in Speech and Hearing I (2)**

Theory of clinical experiences with individuals having various types and degrees of speech and hearing impairments. Organization of speech and hearing programs in schools, hospitals or clinics.  
Prerequisites: SpE 3256 and 3257.  
*Heller*

**SpE 4258 Theory of Clinical Practice in Speech and Hearing II (2)**

A continuation of SpE 4257 which is a prerequisite.  
*Heller*

**SpE 4259 Nature and Etiology of Stuttering (3)**

Introduction to analysis of major theories on stuttering. Study of preventive principles, diagnostic and therapeutic procedures in the clinic and school.  
Prerequisite: SpE 4257.  
*Shulman*

**SpE 4260 Practicum in Speech and Hearing Disorders I (3)**

Supervised clinical practice with children and adults presenting a variety of speech and hearing disorders.  
Prerequisites: SpE 3256 and 3257.

**SpE 4261 Practicum in Speech and Hearing Disorders II (3)**

A continuation of SpE 4260 which is a prerequisite.

**SpE 4262 Signing (3)**

A basic practicum course in signing with the deaf. This course includes learning basic signs and finger spelling and practice to enhance receptive and expressive skills. Class attendance is required.

**SpE 4263 Signing II (3)**

Emphasis is on presenting new vocabulary, reinforcing receptive and expressive finger-spelling skills and fluency in reading and signing words, sentences, and stories. It is for the student who has a basic knowledge of Sign Language and is interested in enhancing skills.  
Prerequisite: SpE 4262.

## Independent Study

**SpE 4301-4303 Independent Study in Special Education and Individualized Services (1, 2 or 3)**

Opportunity for students of advanced ability to pursue in a concentrated manner a specific area of study in special education and individualized services not available through current course offerings.  
Prerequisites: Approval of coordinator and faculty member.

## Interdisciplinary Courses

*The following is found under Interdisciplinary Courses. (See Index.)*

**ID 2252 Introduction to Psychology of the Handicapped (3)**

**ID 4051 Art for the Exceptional Child (3)**  
**ID 4253 Orientation to Psychological Testing (3)**

## Counselor Education Course

**CEd 4900 Guidance (3)**

Guidance techniques employing personal inventory, occupational and educational information and counseling studied as ways to help middle, secondary and special pupils solve their problems.

## Technology Courses

## Courses for Non-Departmental Majors

**T 1000 Computers in Industrial Processes (1)**

Computer terms and exposure to computer-driven processes in the design, graphic, manufacturing and mechanical contracting industries. Exploration of the resulting social, economic and educational implications.  
Prerequisites: Completion of junior year of high school and a "B" average.

**T 3068 The History of Photography (3)**

History of photography from 1839 to the present. Emphasis placed on the development of the field with relation to its process, trends and major artists.  
*Lokuta*

**T 3301 Woodworking for the Non-Major (3)**

Instruction and practical experience for the novice using woodworking, tools, machines, fasteners, bonding agents and finishes as related to forming simple functional objects.  
*Peterson*

**T 4001 Technology for Children—Early Childhood and Elementary School Industrial Arts (3)**

The role of industrial arts in pre-school, kindergarten and elementary education developed. Experience gained in using suitable tools and materials and in developing activities for the nursery school, kindergarten, and elementary grades.  
*Peterson*

## Education

**T 2106 Industrial Arts Sophomore Field Experience (3)**

An introductory field experience in multi-cultural educational setting from kindergarten through senior high school. A strong correlation exists between the seminar activities and field experiences.

**T 3102 Computers in Technology Education**

Application of microcomputer hardware and software for technology education. Use of existing hardware and software for technology and training applications. No prior programming experience needed.

**T 3107 Industrial Arts Junior Field Experience Seminar (3)**

An introductory field experience in a multi-cultural setting for those preparing to teach industrial arts. Course work includes: professional responsibilities, general principles of school organization, methods of instruction, and classroom management from kindergarten through high school.

**T 3108 Principles and Techniques of Teaching Industrial Arts Education (3)**

Introduction to patterns of organization, laboratory management, teaching methods and lesson planning.  
Prerequisite: T 2106.

**T 4109 Industrial Arts Curriculum and Laboratory Design (3)**

Presentation of industrial arts curriculum, the factors that influence it, and the educational concerns that must be considered in designing curriculum. Emphasis also placed on laboratory design and equipment selection and their relationship to curriculum.  
Prerequisite: T 3107.

**T 4110 Student Teaching (8)**

A semester experience in full time teaching in a public school under the guidance and direction of a cooperating teacher and a college supervisor.  
Prerequisites: Successful completion of 96 credits and 3107.

**T 4111 Exploring Special Education-Industrial Arts/Vocational Education (3)**

An introductory course designed for those who contemplate working with special education students in the laboratory area. Required for those pursuing the collateral program in Special Education and Industrial Arts for the Handicapped.

**T 4112 Manufacturing and Packaging in Settings for the Handicapped (3)**

Processing methods, organization, and quality control in mass production of metal, plastic, ceramics, paper and other material products. Practical experience in adapting manufacturing and assembling products related to special needs populations.  
Prerequisite: T 4111, 3301, 1300 or permission of instructor.

**T 4120 Full Semester Student Teaching (10)**

A full time, full semester teaching experience in industrial arts under guidance and direction of a cooperating public school teacher and a college supervisor. (Not open to prior 1983 program students).

**T 4181 Independent Study in Industrial Education (3)**

Industrial Education majors are given opportunity to develop independent projects or research studies in their field. Each student expected to initiate an independent program of study under the close supervision of a faculty member. Student is responsible for the plan of work, its accomplishment and suitable presentation at completion of course. Hours to be arranged by student and instructor; study shall involve a minimum of 135 clock hours of classroom and/or laboratory work. Enrollment is by permission of advising faculty member and in compliance with College policy concerning independent study.

**T 4182 Independent Study in Industrial Education II (3)**

A continuation of T 4181.

**T 4183 The World of Construction (3)**

Comprehensive study of construction methods and related careers including an analysis of the managed-personnel-production system of construction, a synthesis of housing construction practices, and a synthesis of city and regional planning practices.

**T 4184 The World of Manufacturing (3)**

A comprehensive innovative study of manufacturing technology. A brief history and overview of major concepts; analysis of the managed-personnel-production system of manufacturing; synthesis of manufacturing practices as applied to the corporation. Preparation to teach the "World of Manufacturing" at the junior high school level.

## Drafting and Design

**T 1200 Elements of Drafting (3)**

Application of drafting room standards and experiences in the use of drafting instruments, lettering, pencil and ink line work, free-hand sketching, and in the reproduction of drawings. Instruction includes geometric construction, orthographic projection, sections and conventions, working drawings, and graph and chart construction.

**T 2201 Technical Drafting (3)**

A comprehensive study of the spatial relationships of orthographic projection as related to auxiliary views, revolutions, intersections, and developments.  
*Clinton*

**T 2202 Machine Drafting and Design (3)**

Shop processes; the design and application of fasteners, cams, gears, and common mechanisms. Design and preparation of a complete set of working drawings.  
Prerequisite: T 1200 or 2201.

**T 3200 Design Fundamentals (3)**

An investigation of the basic aspects and the traditional concepts of design and of their implication to contemporary design.

**T 3201 Model Design (3)**

Planning, material selection and fabrication techniques of model making and their concurrent relationships to the total design process.  
Prerequisite: T 3200.

**T 3203 Electronic Drafting (3)**

Industrial drafting practices as they apply to the electronics industry. Preparation of schematics, wiring diagrams, installation drawings, tube base diagrams and modular principles.  
Prerequisites: T 1200 or 2201 and 1500.

**T 3204 Architectural Drafting (3)**

Construction details and fabrication techniques of a small residential building. Preparation of a complete set of working drawings.  
Prerequisite: T 1200 or 2201.  
*Clinton*

**T 4205 Light Building Design (3)**

A comprehensive study of the planning and design of residence or small, single-story commercial buildings. Preparation of a complete set of working plans and specifications. Prerequisites: T 2201 and 3204.  
*Clinton*

**T 4206 Technical Illustration (3)**

Pictorial reproduction with emphasis on the characteristics of axonometric and perspective projection. Prerequisite: T 3200.

**T 4207 Design Delineation (3)**

Rendering techniques and methods as related to design delineations with an emphasis on industrial practices. Prerequisite: T 4206.

**T 4210 Design Application (3)**

Application of basic design principles in the construction of a series of three-dimensional forms. Prerequisite: T 3200.

**Construction****T 1300 Elements of Construction (3)**

Designed to give a broad view of construction technology as related to building and production. Hands on experience as well as technical aspects of the area covered.  
*Peterson*

**T 2301 Woodworking (3)**

Course provides for a study of wood as a material and how it can be transformed into an object of utility and beauty through hand and power tools. In addition to developing skills, techniques, safety and use and maintenance of hand and power tools, experience in joining and shaping wood and in using finishes is provided.  
*Peterson*

**T 2302 Furniture Construction (3)**

Course is designed to provide the student with background and knowledge of the principles of furniture design and of approved methods and procedures of furniture construction. Content includes joinery and construction techniques related to leg and rail assemblies and upholstery fundamentals. Emphasis placed on the construction of period furniture and incorporated into individual design problems. Prerequisite: T 2301.

**T 3303 Carpentry and Building Construction (3)**

Designed to give students knowledge of purchasing, plans and specifications, foundation, framing, finishing and estimating of residential buildings. Practical experiences in the use of tools, materials and methods of construction gained through the building of a small frame building.

**T 4304 Contemporary Trends in Woodworking (3)**

Exploration of latest materials and methods of fabrication with emphasis on research and experimentation. Self-direction on the part of students in selecting and solving problems is required. Prerequisite: T 2301.  
*Peterson*

**T 4305 Cabinetmaking (3)**

Joinery, finishing and machine production techniques related to cabinet construction including drawers and guide systems, framed panel construction, doors and the application of plastic laminates. Prerequisite: T 2301.  
*Peterson*

**Manufacturing****T 1400 Elements of Manufacturing (3)**

Explores manufacturing and industrial organization as related to metal casting, sheet metal fabrication, machine operations, forging, heat treating and welding. Emphasis placed on effective laboratory practice as determined by established testing procedures.  
*Sladicka*

**T 2401 Welding Technology (3)**

Development of basic welding skills and safe and intelligent operation of welding equipment. Successful completion provides opportunity for teacher certificate in areas of oxyacetylene and electric arc welding.  
*Sladicka*

**T 2402 Metal Fabrication (3)**

Comprehensive understanding in the areas of sheet metal fabrication, ornamental metals, and art metal with emphasis placed on design, development of advanced skills, techniques, and procedures. Prerequisites: T 1400 and 2401.  
*Sladicka*

**T 3403 Foundry: Theory and Practices (3)**

Emphasizes experience in a variety of industrial metal casting techniques including sand-molds, investment castings, full molds, shell molds, and other molding processes. Prerequisites: T 1400 or permission of instructor.  
*Sladicka*

**T 3410 Computer Aided Manufacturing/Computer Numerical Programming (3)**

Programming related to point-to-point and continuous path machining, tape systems, computer numerical control systems, setup and operations addressed. Prerequisite: CpS 1031 or T 3102.

**T 3920 Introduction to Nondestructive Testing (3)**

Covers the principles and practices of radiography, ultrasonics, magnetic particle, liquid penetrant, eddy current and visual inspection as well as other special techniques of importance or promise. Classroom lectures and demonstrations supplemented by hands-on student laboratory exercises for reinforcement of the understanding of the basic principles.  
*Friedman*

**T 3430 Introduction to Computer Aided Design/Computer Aided Manufacturing (3)**

Comprehensive introduction to a high level language and software development for CAC/CAM systems, methods and applications. Emphasis on language use in automating the design and manufacturing processes and implementing the CAD and DAM systems into planning, costing, database design, productivity, measurement standards, design and automated production. Prerequisite: T 3410.

**T 3441 Metalsmithing: Cold Forming (3)**

Emphasizes cold forming processes in the development of hand wrought metal objects. Techniques include cutting operations, joining operations, enameling, cold forming operations and surface texture-finishes.

**T 4410 Inspection of Fabricated Structures (3)**

An understanding of weld defects and their causes and the responsibilities of welding inspectors in evaluating such defects according to existing standards and codes. Prepares student for American Welding Society Certification Examination for Welding Inspectors. Prerequisites: T 2401, 4408 or approval of instructor.  
*Goodman*

**T 4441 Metalsmithing: Hot Forming (3)**

Stresses hot forming processes in the development of hand wrought and cast metal objects. Techniques include blacksmithing, art metal casting, heat treating, hot forming operations, oxyacetylene welding and surface embellishment.

**T 3404 Machine Metals (3)**

A comprehensive study of machine tool operations and setups including aspects of quality control and use of industrial measuring instruments. Prerequisite: T 1400.  
*Sladicka*

**T 4405 Products Manufacturing (3)**

Simulation of industrial production, taught in conjunction with Machine Drafting and Design, with emphasis on the manufacture of a metal product. Prerequisite: T 1400.  
*Sladicka*

**T 4406 Non Ferrous-Metallurgy (3)**

Understanding of the properties of metals, methods of extracting and refining, the formulation of alloys, and the application of the appropriate metals for current technological purposes.  
*Goodman*

**T 4407 Ferrous Metallurgy (3)**

Designed to provide the student with a comprehensive understanding of the physical properties, metallurgy and application of steels. Current commercial heat treating, joining and forming practices discussed as they relate to practical and economic uses. Prerequisite: T 4406 or permission of instructor.  
*Goodman*

**T 4408 Modern Metal Joining Processes (3)**

The student is provided with an understanding of new joining processes, their economics, problems and applications in specific industries and situations. Review of pre-1940 processes included, updating them to current usage. Prerequisite: T 2401.  
*Goodman*

**T 4409 Commercial Aspects of the Metals Industry (3)**

Comprehensive examination of all phases of the metals and metals joining industry as it presently exists in local, national and international market places. Prerequisite: Senior level status or permission of instructor.  
*Goodman*

**T 4415 Computer Aided Manufacturing/Computer Numerical Control Programming, APT (3)**

Computer programming related to numerical control. Study Automatically Programmed Tools (APT); function and operation of controls; post processors and selected software systems. The course is continuation of T 3430. Prerequisite: T 3430.

**T 4420 Industrial Radiography (3)**

Covers the principles and practices of the safe use of X and gamma radiation in the radiography of various industrial products and materials. Covers the principles of generation of X radiation and the propagation, absorption and scattering of radiation as effected by distance, material media and radiation energy. Equipment covered includes sources, film and film holders, film development apparatus, film densitometers, viewers and radiation safety monitors. Techniques covered include setting up for exposure, film processing and radiograph interpretation. Classroom lectures and discussions are supplemented by simple, hands-on laboratory exercises. Meets the requirements for ASNT TC1a Level II training and final examination acceptable for general examination requirement for ASNT Level II certification. Also serves as preparation for

ASNT Level III general examination.

Prerequisite: T 3420 or permission of instructor.  
*Friedman*

**T 4430 Ultrasonic Testing I (3)**

Principles and practices governing the use of ultrasonic pulse-echo and through-transmission techniques in the inspection and characterization of materials and structures. Both straight beam and angle beam contact testing emphasized. Major topics include the principles of ultrasound generation, propagation and detection, ultrasonic test equipment, ultrasonic test techniques, design and use of calibration standards. Student laboratory exercises supplement and reinforce classroom lectures and demonstrations. Certificate issued to student upon the successful completion of the course is currently found to be acceptable evidence of meeting the general requirement for Level II certification in accordance with ASNT-TC 1a recommended practices. Course also serves as preparation for ASNT Level III General Examination.  
*Friedman*

**Electronics****T 1500 Elements of Electronics (3)**

Technology of electronics through examination of its most basic concepts and fundamentals. Laboratory units allow the student to apply learnings, conduct quantitative measurements, gain experience in using electronic test instruments, and develop ability to write effective technical reports.  
*Cokewood, Jahn*

**T 2500 General Electricity Electronics (3)**

Practical understanding and application of the electrical-electronic concepts found in all areas of industrial education. Prerequisite: T 1500.  
*Cokewood, Jahn*

**T 2501 Circuit Analysis I (4)**

Review of electrical fundamentals and detailed analysis of circuits and circuit elements energized by steady-state and transient d-c voltage sources.  
*Jahn*

**T 2502 Circuit Analysis II (4)**

Principles governing the behavior of d-c circuits and components extended to consider circuits energized by alternating voltages. Prerequisite: T 2501.  
*Jahn*

**T 3503 Solid-State Devices (4)**

A comprehensive analysis of the wide array of solid-state devices with consideration of major applications. Physical, crystalline and biasing properties. Electrical parameters, operating characteristics and ratings. Laboratory experiences. Prerequisite: T 2501.  
*Cokewood, Jahn*

**T 3504 Circuit-Systems (3)**

Designed to treat selected applications into which electron devices and circuit elements can be combined. Circuit-systems of a general nature of those found in many common applications are given special emphasis. Prerequisites: T 2502, 3503.  
*Jahn*

**T 4505 Digital Circuit Concepts (3)**

Systematic introduction to digital concepts and circuits basic to most digital systems. Logic elements, digital devices and their arrangements stressed in a generic array of systems. Prerequisite: T 2501, T 2502.  
*Cokewood*

**T 4506 Fabrication and Development of Electronic Devices (3)**

Basic skills and information necessary for the fabrication, design, and troubleshooting of all types of electronic devices, prototypes, chassis, and racks. Content will in part be determined by particular interests and abilities of the students, who will fabricate operational models or teaching aids for their personal use. Prerequisite: T 3504.  
*Cokewood*

**T 4507 Fundamentals of Solid State Circuit Design (3)**

Basic circuit design equations, concepts and procedures applied to actual solid state circuit design problems. Bias stabilization techniques, feedback circuits, small and large signal amplifiers, motor speed controls and light dimmer circuits. Prerequisite: T 3503.  
*Cokewood*

**T 4508 Linear Integrated Circuits and Special Semiconductor Devices (3)**

Parameters and operating characteristics of linear integrated and special semiconductor devices are analyzed and applied with circuit design and application consideration. Prerequisites: T 2502, 3503.  
*Cokewood, Jahn*

**T 4509 Microprocessor Theory and Application (3)**

A broad based introduction to microprocessors and related topics. Special emphasis placed on interfacing practices and applications. Prerequisites: T 2502, 4505.  
*Cokewood*

**T 4510 Micro-Systems Applications (3)**

Introduction to the equipment, transducers, circuitry, and techniques for applying microprocessors/microcomputers to practical systems. Special emphasis placed on input and output transducers, signal conditioning and time techniques. Prerequisites: T 4509 and knowledge of BASIC language.

## Graphics

### T 1600 Elements of Graphics (3)

Experiences in the fundamentals of letterpress printing, screen process reproduction and offset lithography.

### T 2601 Advanced Letterpress Reproduction (3)

Designed to provide the student with a comprehensive background of knowledge and experience in the various aspects of letter press printing.

Prerequisite: T 1600.

### T 2602 Screen Process Reproduction (3)

A background in screen process printing and experiences in related photo mechanics.

Prerequisite: T 1600.

### T 3603 Black and White Photographic Reproduction I (3)

Background in basic photography with emphasis on camera technique, photographic compositions, and darkroom operation.

Prerequisite: Students must have own appropriate camera.

Lokuta

### T 3604-3605 Color Photographic Reproduction I & II (3,3)

Advanced course in photography with emphasis on light and its evaluation, color transparency exposure and development, color negative development and enlargement, and densitometric controls for quality work.

Prerequisite: T 3603.

Lokuta

### T 3606 Scientific Photography (3)

Emphasis on basic applications of photography in the sciences. Macro, micro, infrared and ultraviolet photography will be explored.

Prerequisite: Students must have their own appropriate camera.

Lokuta

### T 3607 Black and White Photographic Reproduction II (3)

Advanced black and white photography with special emphasis on the zone system, densitometry and advanced darkroom techniques.

Lokuta

### T 4606-4607 Lithographic Reproduction I & II (3,3)

Opportunity to develop skills and technical information essential to the area of offset lithography.

Prerequisite: T 2602.

### T 4608-4609 Color Separation I & II (3,3)

Comprehensive understanding of the principles of color separation and its utilization in the graphic arts.

Prerequisites: T 3605, 4607.

## Power

### T 1700 Elements of Power (3)

A study of the technology involved in harnessing and controlling power, including its source, generation, and transmission, and its application to powered devices and vehicles.

## Mechanical Contracting

### T 2805 (2905) Heating, Ventilating, Air-Conditioning and Plumbing Systems and Equipment (3)

An analysis of the technical potential and function of mechanical systems and equipment utilized in the mechanical contracting industry.

### T 2810 (2910) Interpretation of Construction Drawings and Specifications (3)

Introduction to drafting principles followed by a concentrated study of the interpretation and utilization of information contained in a comprehensive set of construction drawings and specifications as required to meet the needs of middle management in the mechanical contracting industry.

### T 2820 (2920) Building Piping Systems Design (3)

Design of water supply drainage and venting systems. Emphasis given to sizing and plumbing code regulations for New Jersey.

Prerequisite: T 2810.

### T 3830 (3930) Estimating for the Mechanical Contracting Industry (3)

Mechanical contracting estimating procedures including systematic methods of quantity take-offs and pricing. Techniques for estimating non-material costs such as labor, re-design, etc.

Prerequisites: T 2810, 2820, 3840.

### T 3835 (3935) Advanced Estimating for the Mechanical Contracting Industry (3)

The development of an estimate of a recently completed mechanical installation. In addition, all components of the student-prepared estimates are analyzed with respect to the contractor-prepared estimate.

Prerequisite: T 3830.

### T 3840 (3940) Building Environmental Systems Design I (3)

Fundamentals of heat load calculations; basic design, types and layout of steam and hot water heating systems; mechanical ventilation and air distribution devices.

Prerequisite: Mat 1052.

### T 3850 (3950) Building Environmental Systems Design II (3)

Fundamentals of cooling load calculations; basic design and layout of air-conditioning systems, including duct sizing methods the various types of air-conditioning equipment.

Prerequisite: T 3840.

### T 4810 (4910) Construction Law (3)

Basic fundamental principles of industrial law including the following areas: introduction, business organizations, contracts, uniform commercial code (sales), bankruptcy and insolvency, environmental law.

Prerequisite: Junior or senior standing.

### T 4835 (4935) Construction Project Management (3)

Analysis of the supervision techniques and procedures used by the project supervisor as related to a typical mechanical contracting project from job start-up to job analysis in retrospect.

Prerequisite: T 3830.

### T 4840 (4940) Construction Finance (3)

An analysis of supervision techniques and procedures which arise in an orderly sequence from the pre-bidding state through the legal conclusion of a job as related to the mechanical contracting industry.

Prerequisite: T 3830.

## Technology

### T 1901 Introduction to Industrial Technology (2)

Survey of the nature, content and implications of careers in industrial technology. Analysis and discussion of the current critical issues of industry.

Thatcher

### T 2900 Preparation of Technical Documents (3)

Advanced writing in scientific and technical fields; technical reports and papers, requisition procedures, personal evaluations and other communicative experiences of value to the technically oriented person.

Thatcher

### T 2903 Material Science (3)

Provides an understanding of the basic properties of all materials and how these properties are related to individual and industrial decision making in today's society.

Friedman

### T 3900 Industrial Statistics and Quality Control (3)

Introduction to the controlling of quality through the use of statistical methods. The application of significance tests, correlation analysis, analysis of variance, principles of reliability and sampling procedures.

Prerequisite: Mat 1052.

Thatcher

### T 3901 Plant Layout (3)

Analysis of industrial plant layout procedures from initial planning to installation and evaluation phases.

Prerequisite: T 2201.

### T 3902 Material Handling (3)

Principles, techniques, procedures and equipment to meet present day's needs in moving, packaging, warehousing and shipping of wide varieties of materials.

### T 3903 Principles of Industrial Purchasing (3)

An overview of purchasing procedures and functions to allow middle management personnel an introductory understanding of industrial purchasing.

### T 4900 Industrial Safety (3)

Basic fundamental principles of industrial accident prevention; significant, accident statistics and costs; appraising safety performances; industrial plant hazards and safeguards; fine control fundamentals.

### T 4901 Advanced Industrial Safety (3)

Provides an understanding and a contrast between safety theories and today's knowledge of human behavior and motivation.

Prerequisite: T 4900 or permission of instructor.

### T 4902 Occupational Health Hazards—Chemical (3)

Provides an understanding of chemical health hazards encountered in the work place, their recognition, evaluation and control.

Prerequisite: T 4900 or may be taken concurrently.

### T 4903 Occupational Health Hazards—Physical (3)

Provides an understanding of physical health hazards (noise, radiation, heat, illumination) encountered in the work place, their recognition, evaluation and control.

Prerequisite: T 4902 or permission of instructor.

### T 4950 Strength of Materials (3)

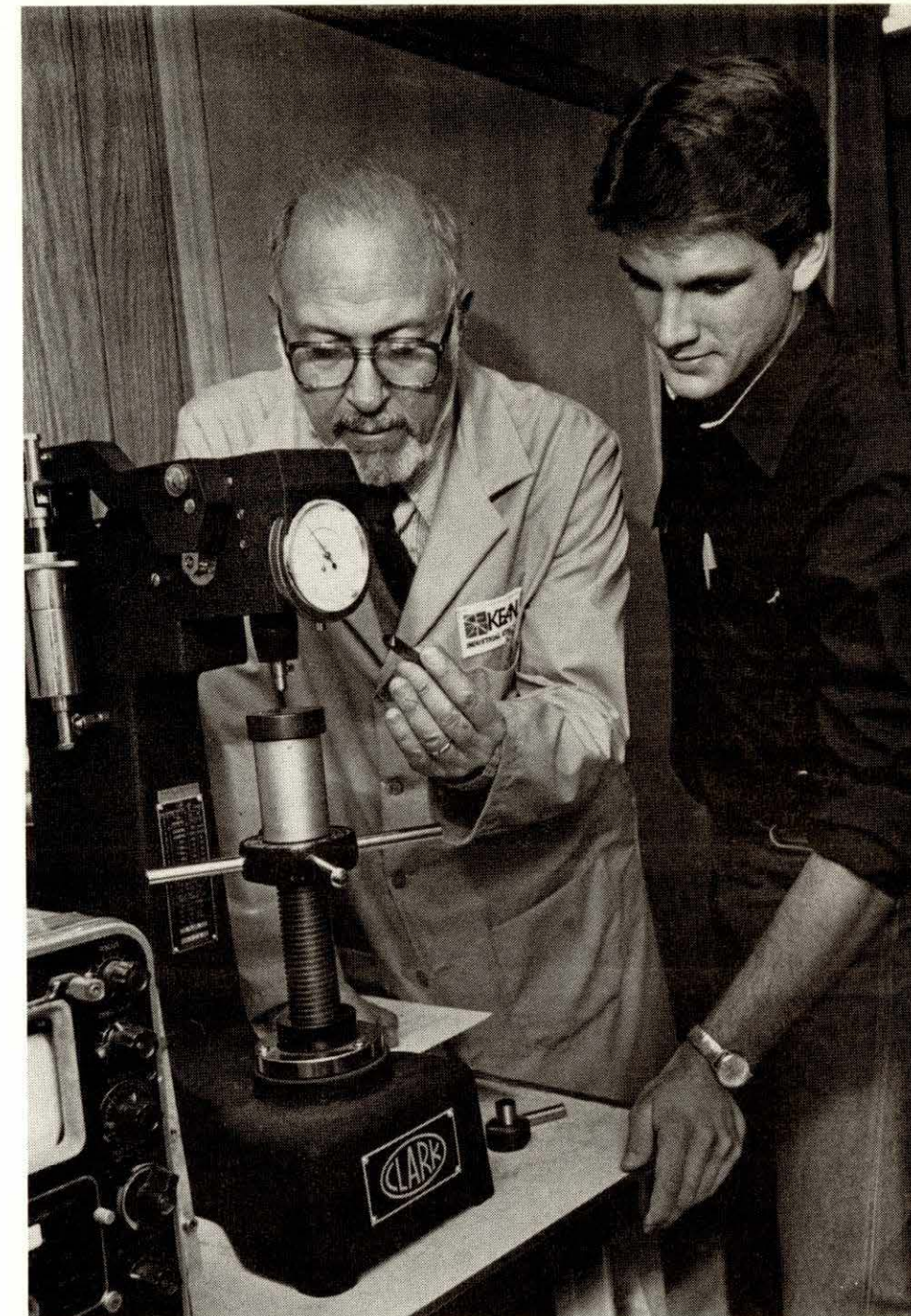
Study of the principles governing the determination of the stresses and deformations of a structural member when subjected to a defined external mechanical load. Intended for use of individuals concerned with the design and analysis of structures, piping, pressure vessels, machinery and industrial and consumer products.

Prerequisites: Mat 1052; Phy 2091.

### T 4998-4999 Cooperative Education in Industrial Studies (3,6)

An opportunity for upper level students majoring in Industrial Education or Industrial Technology to obtain supervised work experience related to their area of specialization.

Prerequisites: Junior standing, 2.5 average in major, completion of 12 semester hours in major specialization requirements which must include 3 semester hours of study related to the proposed work experience.



# SCHOOL OF HUMANITIES, SOCIAL & ADMINISTRATIVE SCIENCES

## Academic Programs

### Degrees

- B.S. in Accounting
- B.A. in Art History
- B.A. in Economics
- B.A. in Economics, Teacher Certification Option
- B.A. in English
- B.A. in English, Writing Option
- B.A. in English, Comparative Literature
- B.A. in English, Speech/Theatre/Media
- B.A. in English, Teacher Certification Option
- B.A. in Fine Arts, Artist/Craftsperson Option, Liberal Arts
- B.A. in Fine Arts, Artist/Craftsperson Option, Professional
- B.A. in Fine Arts, Artist/Craftsperson Option, Specialized
- B.A. in Fine Arts, Interior Design Option, Liberal Arts
- B.A. in Fine Arts, Interior Design Option, Professional
- B.A. in Fine Arts, Interior Design Option, Specialized
- B.A. in Fine Arts, Visual Comm. Option, Liberal Arts
- B.A. in Fine Arts, Visual Comm. Option, Preprofessional
- B.A. in Fine Arts, Visual Comm. Option, Specialized
- B.A. in Fine Arts, Teacher Certification Option
- B.A. in French
- B.A. in History
- B.A. in History, Teacher Certification Option
- B.S. in Management Science
- B.A. in Music
- B.A. in Music, Teacher Certification Option
- B.A. in Philosophy and Religion
- B.A. in Political Science

- B.A. in Political Science, Criminal Justice Option
- B.A. in Political Science, Teacher Certification Option
- B.A. in Psychology
- B.A. in Public Administration
- B.A. in Public Administration, Criminal Justice Option
- B.A. in Sociology
- B.A. in Sociology, Teacher Certification Option
- B.S.W. in Social Work
- B.A. in Spanish
- B.A. in Spanish, Teacher Certification Option

## Faculty

### ECONOMICS, GEOGRAPHY AND MANAGEMENT SCIENCE

Faculty: Battista, Bornstein, Capone, Carlsen, Casson, Cogan, Elakman, Engelberg, Fenster, Finch, Fulop (Chairperson), Helliwell, Herskovitz, Hiraoka, Kelland, Kempey, Kim, Lampert, Mariscal, Parker, Schader, Schumacher, Stern

### ENGLISH

Faculty: Banks, Bauer, Brilliant, De Fanti, Dolkey, Evans, Fyne, Gover, Haselton, Kafka, Katz, Kennedy, King, Krueger, O'Day, Okin, Reicker, Reppey, Scotto, Shaffer-Koros, Suiter, Thomason, Weinstein (Chairperson)  
Speech/Theatre/Media: Dunn, Harper, Londino, D. Lumsden, G. Lumsden, Murphy, Remmers, Trzesinski

### FINE ARTS

Faculty: Buncamper, Burger, Cade, Cohan, Coon, Cornish, Derman, Fuhrman, Giacalone, Goodwin, Greenberg, Holloway, Jochnowitz, Jones, Lipscomb, Lord, Metzger, Moore, Nicolescu, Pierro (Chairperson), Schwartz, Stotz, Tatton, Topper, Troy, Valla, Victoria, Wallach, Wilber

### FOREIGN LANGUAGES, LITERATURES AND CULTURES

Faculty: Aleman, Edreira (Chairperson), Feito, Gnarra, Markle, Portuondo, Rodriguez, Stalins, Wendell

### HISTORY

Faculty: Didsbury, Fridlington, Furer, N. Goldberg, Higgins, Leonard, Letterese, Lutz, Mayer, Raichle, Rice, Siegel, Socarras, Spaulding, S. Strauss, L.H. Zimmer (Chairperson)

### MUSIC

Faculty: Cullen, Engelhard, Feldman, Golub, Grace, Herron, Hoyle, Montgomery (Chairperson), W. Price, L.J. Zimmer

### PHILOSOPHY AND RELIGION

Faculty: Burt, Catalano, D'Souza (Chairperson), Fethe, Pashman, Pezzolo, Sitelman, Stern

### POLITICAL SCIENCE

Faculty: Daly, Farahi, Israel, Kahn, Kelly, Laudicina, Lederman, Ross, Rubin (Chairperson), Sanchez, Shenis, N. Weiss

### PSYCHOLOGY

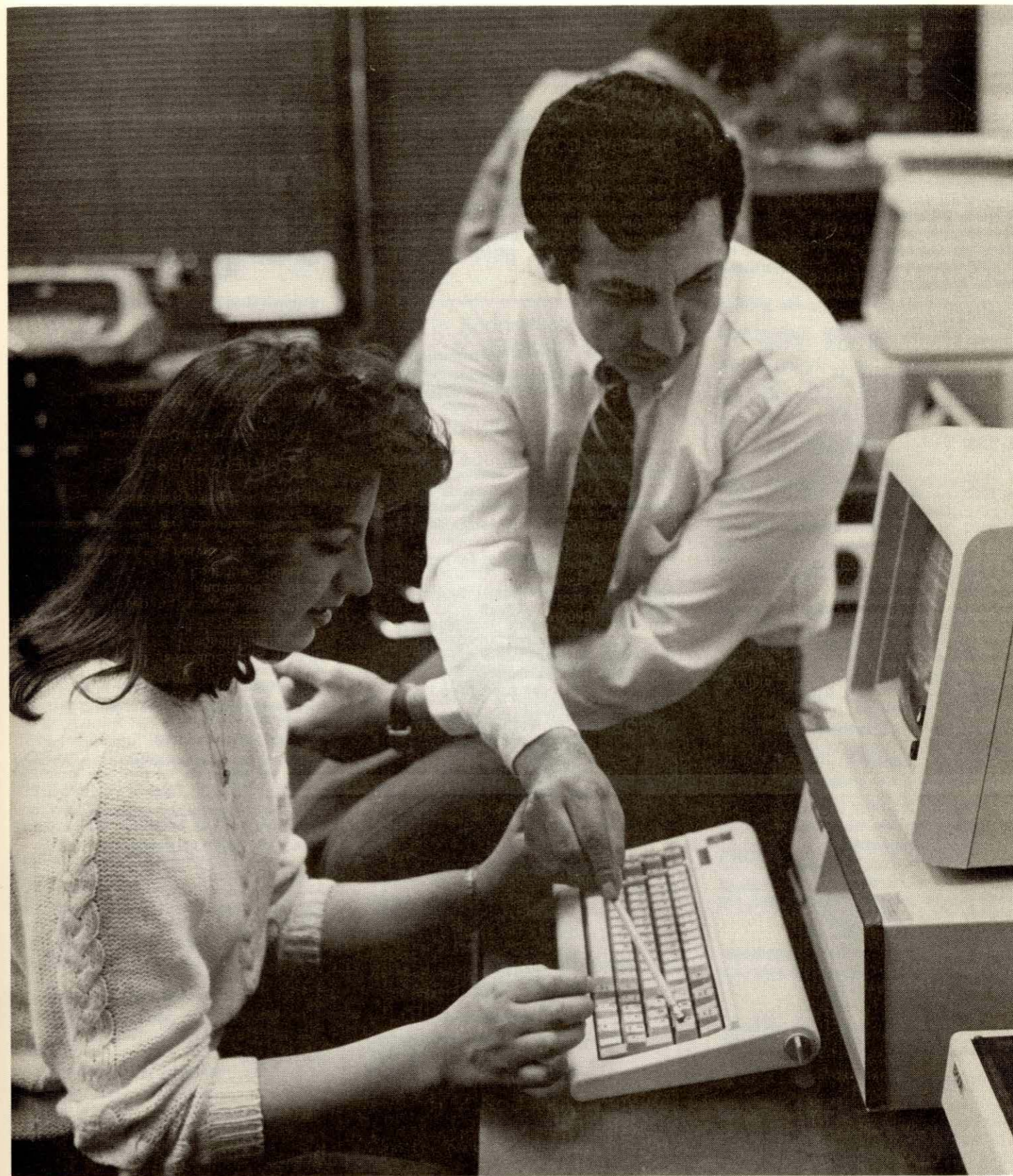
Faculty: Angers, Avioli, Bousquet, Bruel, DiSalvi, Feigenbaum, Fraunfelker, Gonsalves, M. Harris, N. Harris, Howard, Jaffe, Kaplowitz, Kind, Lorber, Moldawsky, Morelli, R. Roth, Samenfeld (Chairperson), Saperstein, S. Schwartz, Springer, F. Stern

### SOCIOLOGY, ANTHROPOLOGY AND SOCIAL WORK

Sociology Faculty: Kamerman, Langer, Mayo (Chairperson), Naughton, Stimson, Wase, Wheeler, White, Yellin

Anthropology Faculty: White

Social Work Faculty: Elias, Graves (Coordinator), Herina, Schreiber, Williams



Coordinator: Dr. Eric Carlsen  
W403 Ext. 2238

Accounting is the study of how an organization's financial transactions are recorded, controlled, and reported. It seeks to analyze the earnings performance and financial position of entities in both the business and the not-for-profit sectors of the economy. If you are interested in the financial aspects of business, you may wish to consider a major in accounting. Our program will prepare you for the CPA examination and entry-level positions in accounting.

**GENERAL EDUCATION 51-52**

- CORE REQUIREMENTS 18**  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World # 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12*  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 Music  
 Philosophy or Religion  
*Social and Behavioral Sciences 12*  
 Eco 1020-1021 Principles of Economics I and II 6

- Two courses from two areas:  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology  
*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics  
*Mathematical Sciences 3*  
 CpS 1031 Computer Arithmetic Algorithms  
*Health and Physical Education 2-3*  
 Health Education  
 Physical Education

#A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

Coordinator: Prof. Virginia Stotz  
VE438 Ext. 2699

Art history, a traditional liberal arts discipline, is concerned with the understanding and interpretation of the visual arts within a historical context. This major prepares students for art-oriented occupations. Additional background in the humanities, especially languages, and courses in museum training are recommended. Programs should be selected with advisement.

**COGNATE COURSES 3**

- CpS 1032 Principles and Procedures of Electronic Data Processing 3

**MAJOR REQUIREMENTS 57**

- Required Courses 45*  
 MgS 2100 Quantitative Methods in Management Science 3  
 MgS 2120 Business Statistics 3  
 Acc 2200 Principles of Accounting I 3  
 Acc 2210 Principles of Accounting II 3  
 MgS 3310 Management of Corporate Finance I 3  
 MgS 3051 Business Law I 3  
 MgS 3052 Business Law II 3  
 Acc 3210 Intermediate Accounting I 3  
 Acc 3220 Intermediate Accounting II 3  
 Acc 3230 Federal Income Taxes 3  
 Acc 3240 Cost Accounting 3  
 Acc 4210 Advanced Accounting I 3  
 Acc 4230 Auditing I 3  
 Eco 3300 Money and Banking or  
 Eco 3311 Management of Corporate Finance II 3  
 Eng 3090 Business, Professional and Technical Writing 3

*Major Electives 12*  
 Selected with departmental advisement

**FREE ELECTIVES 12-13**

TOTAL 124

**GENERAL EDUCATION 51-52**

- CORE REQUIREMENTS 18**  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World # 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12*  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion  
*Social and Behavioral Sciences 12*  
 Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology  
*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics  
*Mathematical Sciences 3*  
 Computer Science  
 Mathematics  
*Health and Physical Education 2-3*  
 Health Education  
 Physical Education  
 #A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

**MAJOR REQUIREMENTS 30**

- Required Courses 18*  
 FA 1100 Two-Dimensional Design 3  
 FA 1101 Three-Dimensional Design 3  
 AH 1700-1701 Art History I and II 6  
 FA 3800 Philosophy of Art 3  
 AH 4700 Problems in Art History 3  
*Major Electives 12*  
 Any four additional courses in art history

**FREE ELECTIVES 42-43**

TOTAL 124

Chairperson: Dr. Marcel Fulop  
W403 Ext. 2238

The major in Economics is designed to develop an understanding of the economic aspects of human behavior by providing an analysis of the basic structure, processes and problems of the economy and systematic training in the analytical tools used in their study. Courses in economics prepare the student for graduate work in economics, statistics, business administration and law, as well as corporate and public sector employment.

Those students who plan to do graduate work in economics should take courses in quantitative methods and additional courses in mathematics. All students are urged to seek departmental advisement.

**GENERAL EDUCATION 51-52**

- CORE REQUIREMENTS 18**  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World # 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12*  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion  
*Social and Behavioral Sciences 12*  
 Eco 1020-1021 Principles of Economics I and II 6

- Two courses from two areas:  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology  
*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics  
*Mathematical Sciences 3*  
 Computer Science  
 Mathematics  
*Health and Physical Education 2-3*  
 Health Education  
 Physical Education

#A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

**MAJOR REQUIREMENTS 30**

- Required Courses 12*  
 MgS 2120 Business Statistics 3  
 Eco 3020 Intermediate Macroeconomics 3  
 Eco 3321 Intermediate Microeconomics 3  
 Eco 3300 Money and Banking 3

*Major Electives 18*  
 Selected with departmental offerings, at least 12 at 3000-4000 level

**FREE ELECTIVES 42-43**

TOTAL 124

**Minor in Economics**

From departmental offerings, at least 12 semester hours beyond Eco 1020-1021 of which at least 6 hours must be at the 3000-4000 level.

**Option: Teacher Certification**

The following program meets the standards for state approval of teacher education in Economics K-12.

**GENERAL EDUCATION 59**

- CORE REQUIREMENTS 18**  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual & Cultural Tradition 3  
 GE 2020 Inquiry & Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science & Technology in the Modern World 3

**BREADTH REQUIREMENTS 41**

- Humanities 9*  
 STM 1900 Speech 3  
 Two courses from two areas:  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion  
*Social and Behavioral Sciences 9*  
 Psy 1000 General Psychology 3  
 Psy 2110 Psychology of Adolescence 3  
 Soc 1000 Social Life & Society, or Ant 1800 Cultural Anthropology 3  
*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics  
*Mathematical Sciences 3*  
 One course in Mathematics  
*Health and Physical Education 4*  
 ID 1225 Contemporary Issues in Health 3  
 Physical Education 1

- Additional General Education Courses 12*  
 Geo 3210 Economic Geography 3  
 His 2303 U.S. History to 1877 3  
 His 2304 U.S. History 1877 to Present 3  
 One of the following: 3

- PS 2110 American State & Local Political Systems  
 PS 3150 American Constitutional Law I  
 PS 3151 American Constitutional Law II  
 PS 3150 Ethnic Politics in the U.S.  
 PS 3170 N.J.: State Government & Politics  
 PS 3310 Comparative Non-Western Governments

†Excluding teaching methods courses

**ACADEMIC SEQUENCE 39**

- MAJOR REQUIREMENTS 33**  
 Eco 1020 Principles of Economics I 3  
 Eco 1021 Principles of Economics II 3  
 Eco 3020 Intermediate Macroeconomics 3  
 Eco 3021 Intermediate Microeconomics 3  
 Eco 3300 Money & Banking 3  
 MgS 2120 Business Statistics 3  
 Major electives. Choose 5 courses; at least 3 courses on 3000-4000 level 15

**SUPPORTING COURSES 6**

- His 3326 History of New Jersey 3  
 One of the following: 3  
 His 2381 History of Latin America to 1825  
 His 2382 History of Latin America 1825 to Present  
 His 3425 Southeast Asia in the 20th Cent.  
 His 2500 Survey of African Prehistory & History  
 His 2510 Political History of Africa in 20th Century

**BEHAVIORAL/SOCIAL SCIENCES 6**

- ID 2200 Teacher, School & Society 3  
 ID 3201 Educational Psychology 3

**PROFESSIONAL EDUCATION 27**

- Sophomore Level*  
 ICA 2801 Introductory Field Experiences for Subject Area Instruction, K-12 3  
*Junior Level*  
 ICA 3240 Introduction to Social Studies Education with Directed Field Observations 6  
 CS 340- Reading in Content Areas 2  
 CS 340- Advanced Reading Techniques 2  
*Senior Level*  
 ICA 4802 Professional Internship for Subject Area Teachers, K-12 10  
 ICA 4240 Social Studies Curriculum & Methods 4  
 TOTAL 131

Chairperson: Dr. Bernard Weinstein  
W303D Ext. 2092

The English major provides students wishing to pursue an interest in language and literature with a foundation that is culturally rich and academically rewarding. The major also provides a basis for advanced study in English, law, or journalism; for secondary school teaching; and for communications-oriented positions in business, industry, and the community.

Option: Standard

GENERAL EDUCATION 51-52

- CORE REQUIREMENTS 18
Eng 1020 Composition 3
GE 1100 Emergence of the Modern World 3
GE 1200 Intellectual and Cultural Traditions 3
GE 2020 Inquiry and Research 3
Eng 2203 Landmarks of World Literature 3
GE 2400 Science and Technology in the Modern World # 3

BREADTH REQUIREMENTS 33-34

- Humanities 12
Select from at least three areas:
\*\*English (2000 level literature or drama) or Speech/Theatre/Media
†Fine Arts or Art History
Foreign Languages
†Music
Philosophy or Religion

Social and Behavioral Sciences 12

- Select from at least three areas:
Economics or Geography
History
Political Science
Psychology
Sociology or Anthropology

Biological and Physical Sciences 4

- Astronomy Geology
Biology Meteorology
Chemistry Physics

Mathematical Sciences 3

- Computer Science
Mathematics

Health and Physical Education 2-3

- Health Education
Physical Education

#A Science course may be substituted for this Core Course
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement
†Excluding teaching methods courses

COGNATE COURSES 3

- STM 1900 Speech Communications 3

MAJOR REQUIREMENTS 30

Required Courses 15

- Eng 2205 British Literature I or\* 3
Eng 2206 British Literature II 3
Eng 2220 American Literature to 1860 or\* 3
Eng 2221 American Literature 1860-1914 3
Eng 2215 Shakespeare Survey 3
Eng 3350 Contemporary Literature 3
Eng 4800 Senior English Seminar\*\* or 3
Eng 4600 Senior Honors Seminar\*\* 3

(\*It is desirable that students take both parts of these surveys)
(\*\*Qualified juniors may enroll for the seminars with permission of the department)

Major Electives 15

Must include one language course selected with advisement and courses from at least two of the following groups: figures, genre, period.

FREE ELECTIVES 39-40

TOTAL 124

Option: Writing

Designed for students interested in careers involving writing (such as business, the professions, journalism, or the creative arts) and also for those students who wish to pursue graduate programs in writing.

GENERAL EDUCATION 51-52

- CORE REQUIREMENTS 18
Eng 1020 Composition 3
GE 1100 Emergence of the Modern World 3
GE 1200 Intellectual and Cultural Traditions 3
GE 2020 Inquiry and Research 3
Eng 2203 Landmarks of World Literature 3
GE 2400 Science and Technology in the Modern World # 3

BREADTH REQUIREMENTS 33-34

- Humanities 12
Select from at least three areas:
\*\*English (2000 level literature or drama) or Speech/Theatre/Media
†Fine Arts or Art History
Foreign Languages
†Music
Philosophy or Religion

Social and Behavioral Sciences 12

- Select from at least three areas:
Economics or Geography
History
Political Science
Psychology
Sociology or Anthropology

Biological and Physical Sciences 4

- Astronomy Geology
Biology Meteorology
Chemistry Physics

Mathematical Sciences 3

- Computer Science
Mathematics

Health and Physical Education 2-3

- Health Education
Physical Education

#A Science course may be substituted for this Core Course
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement
†Excluding teaching methods courses

COGNATE COURSES 3

- STM 1900 Speech Communications 3

MAJOR REQUIREMENTS 30

Required Courses 15

- Eng 2205 British Literature I or\* 3
Eng 2206 British Literature II 3
Eng 2220 American Literature to 1860 or\* 3
Eng 2221 American Literature 1860-1914 3
Eng 2215 Shakespeare Survey 3
Eng 3350 Contemporary Literature 3
Eng 4800 Senior English Seminar\*\* or 3
Eng 4600 Senior Honors Seminar\*\* 3

(\*It is desirable that students take both parts of these surveys)
(\*\*Qualified juniors may enroll for the seminars with permission of the department)

Major Electives 15

Must include one language course selected with advisement and 12 s.h. in writing courses, with at least half at the 3000-4000 level.

FREE ELECTIVES 39-40

TOTAL 124

Option: Comparative Literature

GENERAL EDUCATION 51-52

CORE REQUIREMENTS 18

- Eng 1020 Composition 3
GE 1100 Emergence of the Modern World 3
GE 1200 Intellectual and Cultural Traditions 3
GE 2020 Inquiry and Research 3
Eng 2203 Landmarks of World Literature 3
GE 2400 Science and Technology in the Modern World # 3

BREADTH REQUIREMENTS 33-34

- Humanities 12
Two courses in a foreign language at 2000 level and above 6
Two courses from at least two areas: 6
\*\*English (2000 level literature or drama) or Speech/Theatre/Media
†Fine Arts or Art History
†Music
Philosophy or Religion

Option: Teacher Certification

The following program meets the standards for state approval of teacher education in English K-12.

GENERAL EDUCATION 61

CORE REQUIREMENTS 18

- Eng 1020 Composition 3
GE 1100 Emergence of Modern World 3
GE 1200 Intellectual and Cultural Traditions 3
GE 2020 Inquiry and Research 3
Eng 2203 World Literature 3
GE 2400 Science & Technology in the Modern World 3

BREADTH REQUIREMENTS 43

- \*Humanities 9 (from at least 2 disciplines)
STM 1900 Speech 3
Two courses from two areas:
†Fine Arts or Art History
Foreign Languages
†Music
Philosophy or Religion
†Excluding teaching methods courses

Social and Behavioral Sciences 12

- Select from at least three areas:
Economics or Geography
History
Political Science
Psychology
Sociology or Anthropology
Biological and Physical Sciences 4
Astronomy Geology
Biology Meteorology
Chemistry Physics
Mathematical Sciences 3
Computer Science
Mathematics
Health and Physical Education 2-3
Health Education
Physical Education

#A Science course may be substituted for this Core Course
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement
†Excluding teaching methods courses

\*Social and Behavioral Sciences 9

- Psy 1000 General Psychology 3
Psy 2110 Psychology of Adolescence 3
Soc 1000 Social Life & Society, or 3
Ant 1800 Cultural Anthropology

Biological and Physical Sciences 4

- Astronomy Geology
Biology Meteorology
Chemistry Physics

Mathematical Sciences 3

- One course in Mathematics

Health and Physical Education 4

- ID 1225 Contemporary Issues in Health 3
Physical Education 1

Additional General Education Courses 14

- STM 2905 Public Speaking 3
Eng 2255 Literature for the Adolescent 3
Electives 8 (from any of the above \* areas)

MAJOR REQUIREMENTS 30

- Eng 2220 Amer. Lit. to 1860, or 3
Eng 2221 Amer. Lit. from 1860 3
Eng 2205 Brit. Lit. I, or 3
Eng 2206 Brit. Lit. II 3
Eng 2215 Shakespeare Survey 3
Eng 3350 Contemporary Literature 3
Eng 4800 Senior Seminar, or 3
Eng 4600 Senior Honors Seminar 3

COGNATE COURSES 3

- Eng 2240 Introduction to Comparative Literature 3

MAJOR REQUIREMENTS 30

Required Courses 21

- Eng 4550 Theory and Criticism: The Literature about Literature 3
Six courses, selected with advisement from the English and/or Foreign languages departments as follows:
Two literature courses dealing with various cultures 6
Two courses in American and or English Literature 6
Two courses in foreign literature in original language 6
Major Electives 9
Three courses from English or Foreign Languages departments with a maximum of 6 s.h. in Literature in Translation

FREE ELECTIVES 39-40

TOTAL 124

Eng 2101 Origins & Structure of the Eng. Language 3

- Eng 3115 Applied Linguistics 3
Eng 2000 Writing About Literature 3
A "genre" course 3
A "figures" or "period" course 3

BEHAVIORAL/SOCIAL SCIENCES 6

- ID 2200 Teacher, School and Society 3
ID 3201 Educational Psychology 3

PROFESSIONAL SEQUENCE 27

- ICA 2801 Introductory Field Experiences in Subject Areas Instruction, K-12 3
ICA 3210 Introduction to English Education, K-12 (with directed field experiences) 6
CS 340- Reading in Content Areas 2
CS 340- Advanced Reading Techniques 2
ICA 4802 Professional Internship for Subject Area Teachers, K-12 10
ICA 4210 English Curriculum & Methodology 4

FREE ELECTIVES 4

TOTAL 128



Minor in English

Students may select one of four emphases to develop their general understanding of literature, writing and/or linguistics, or to enhance academic or professional skills based in another major.

REQUIREMENTS 18

- Required Courses* 6  
 Eng 2000 Writing about Literature 3  
 One English course outside of concentration, selected with advisement 3  
*Electives* 12  
 four courses selected with advisement from departmental offerings, at least two on the 3000-4000 level, to complete one of the following concentrations:  
 General Literature Writing Linguistics

Option: Speech/Theatre/Media

Coordinator: Dr. James Murphy  
 VE410 Ext. 2349

GENERAL EDUCATION 51-52

CORE REQUIREMENTS 18

- Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World # 3

BREADTH REQUIREMENTS 33-34

- Humanities* 12  
 STM 1900 Speech Communication  
 Three courses from at least two areas:  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

*Social and Behavioral Sciences* 12

- Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology  
*Biological and Physical Sciences* 4  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

*Mathematical Sciences* 3

- Computer Science  
 Mathematics

*Health and Physical Education* 2-3

- Health Education  
 Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

COGNATE COURSES 12

Eng 2215 Shakespeare Survey  
 One course in literature for the theatre  
 Two courses in twentieth century literature or advanced writing, language, or poetry

MAJOR REQUIREMENTS 30

- Required Courses* 12  
 One of the following: 3  
 STM 2920 Introduction to the Theatre  
 STM 2970 Nature and Experience of Communication  
 STM 2975 Introduction to Mass Media  
 STM 4940 History of the Theatre  
 Out of the following four pairs, one course in each of three pairs: 9  
 STM 2905 Public Speaking I or STM 2960 Acting I  
 STM 3900 Voice and Speech or STM 3920 Theatre Speech and Scene Studies  
 STM 2925 Technical Theatre Production or STM 3950 Art of Persuasion  
 STM 2705 Oral Interpretation or STM 3925 Directing I

*Major Electives* 18

Selected with departmental advisement from courses in Speech/Theatre/Media

FREE ELECTIVES 30-31

TOTAL 124

Minor in Speech/Theatre/Media

REQUIREMENTS 18

*Required Courses for Theatre Emphasis*

- \*STM 1900 Speech Communications 3  
 STM 2960 Acting I 3  
 STM 2920 Introduction to Theatre 3  
 STM 2925 Technical Theatre Production 3  
 Three speech/theatre/media courses of which two must be 3000-4000 level 9

*Required Courses for Speech-Media Emphasis*

- \*STM 1900 Speech Communications 3  
 STM 2905 Public Speaking 3  
 STM 2970 Nature and Experience of Communication 3  
 STM 2975 Introduction to Mass Media 3  
 Three speech/theatre/media courses of which two must be 3000-4000 level 9

\*STM 1900 required through General Education

Chairperson: Prof. Leonard Pierro  
 VE403B Ext. 2309

The Fine Arts Department offers a studio major, a major in art history and a minor in fine arts.

**Structure of the Major** There are three components common to every option and level of concentration within the studio major. The options of artist/craftsperson, interior design and visual communications in the Fine Arts Department each have an additional choice of three levels of emphasis:

Option: Artist/Craftsperson

Program Coordinator: Prof. Michael Metzger  
 VE436 Ext. 2697

This major enables the student to elect one of three emphases: studio art, studio craft and artist-teacher. The studio art and studio craft emphases provide specialized study in ceramics, drawing, fibers, film-making, jewelry, painting, photography, printmaking, sculpture and woodworking, and graduates are pursuing careers in these fields. The artist-teacher emphasis is based on the philosophy that the best teachers are also competent practicing artists. It is, therefore, a broad program of study in studio art and crafts, art history and education. As a result, graduates may fill varied roles in museums and galleries, as well as pursue careers as working artists. Successful completion of the professional artist-teacher level meets requirements for N.J. certification to teach in grades K-12.

Level: Liberal Arts

GENERAL EDUCATION 51-52

- CORE REQUIREMENTS 18  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World # 3

BREADTH REQUIREMENTS 33-34

- Humanities* 12  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

- (1) **LEVEL: LIBERAL ARTS** 30 credit hours in the major. A program designed for those interested in a graphic liberal arts background.  
 (2) **LEVEL: SPECIALIZED** 42 credit hours in the major. A program designed to allow the student to specialize in a specific studio area beyond the basic liberal arts level.

- (3) **LEVEL: PROFESSIONAL** 72 credit hours in the major. An intensive program beyond the specialized level. Admission to this level is dependent upon a major grade point average of B (3.0) and faculty approval based upon portfolio review.

*Social and Behavioral Sciences* 12

- Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

*Biological and Physical Sciences* 4

- Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

*Mathematical Sciences* 3

- Computer Science  
 Mathematics

*Health and Physical Education* 2-3

- Health Education  
 Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

COGNATE COURSES 6

- AH 1700- 1701 Art History I and II 6

MAJOR REQUIREMENTS 30

- Required Courses* 21  
 FA 1100 Two-Dimensional Design 3  
 FA 1101 Three-Dimensional Design 3  
 FA 1230- 1231 Drawing I and II 6  
 FA 2100 Color Theory 3  
 FA 3200 Painting 3  
 FA 3276 Sculpture Workshop: Fabrication or Sculpture Workshop: Modeling and Casting 3

*Option Requirements* 9

- FA 2200 Materials and Techniques or FA 3230 Life Drawing 3  
 FA 3800 Philosophy of Art 3  
 One of the following: 3  
 FA 3280 Ceramics I  
 FA 3282 Jewelry I  
 FA 3284 Introduction to Textiles  
 FA 3290 The Woodworker's Art

FREE ELECTIVES 36-37

TOTAL 124

Option: Artist/Craftsperson  
 Level: Specialized

GENERAL EDUCATION 51-52

- CORE REQUIREMENTS 18  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World # 3

BREADTH REQUIREMENTS 33-34

- Humanities* 12  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

*Social and Behavioral Sciences* 12

- Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

*Biological and Physical Sciences* 4

- Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

*Mathematical Sciences* 3

- Computer Science  
 Mathematics  
*Health and Physical Education* 2-3  
 Health Education  
 Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

(cont. on next page)

## B.A. IN FINE ARTS

(cont. from p. 77)

### COGNATE COURSES 6

AH 1700- 1701 Art History I and II 6

### MAJOR REQUIREMENTS 42

#### Required Courses 21

FA 1100 Two-Dimensional Design 3  
 FA 1101 Three-Dimensional Design 3  
 FA 1230- 1231 Drawing I and II 6  
 FA 2100 Color Theory 3  
 FA 3200 Painting 3  
 FA 3276 Sculpture Workshop: Fabrication or 3  
 FA 3277 Sculpture Workshop: Modeling and Casting 3

#### Option Requirements 21

Complete one Area

#### STUDIO ARTS AND STUDIO CRAFTS

FA 2200 Materials and Techniques or 3  
 FA 3230 Life Drawing 3  
 FA 3260 Printmaking: Relief and Intaglio or 3  
 FA 3261 Printmaking: Lithography and Screen Printing 3  
 FA 3270 Photography or 3  
 FA 3600 Filmmaking 3  
 FA 3800 Philosophy of Art 3  
 One of the following: 3  
 FA 3280 Ceramics I 3  
 FA 3282 Jewelry I 3  
 FA 3284 Introduction to Textiles 3  
 FA 3290 The Woodworker's Art 3  
 Two courses from studio arts and studio crafts offerings not previously taken, selected with departmental advisement

#### †ARTIST-TEACHER

FA 3230 Life Drawing 3  
 FA 3260 Printmaking: Relief and Intaglio or 3  
 FA 3261 Printmaking: Lithography and Screen Printing 3  
 FA 3270 Photography 3  
 FA 3280 Ceramics I 3  
 FA 3284 Introduction to Textiles 3  
 FA 3800 Philosophy of Art 3  
 One of the following: 3  
 FA 3282 Jewelry I 3  
 FA 3290 The Woodworker's Art 3  
 FA 3600 Filmmaking I 3

### FREE ELECTIVES 24-25

TOTAL 124

†For certification students must follow the program outlined in the Teacher Certification Option.

### Option: Artist/Craftsperson Level: Professional

### GENERAL EDUCATION 51-52

#### CORE REQUIREMENTS 18

Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World # 3

#### BREADTH REQUIREMENTS 33-34

##### Humanities 12

AH 1700- 1701 Art History I and II 6  
 Two courses from two areas: 6  
 English (2000 level literature or drama) or Speech/Theatre/Media or Foreign Languages  
 †Music  
 Philosophy or Religion

##### Social and Behavioral Sciences 12

Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

##### Biological and Physical Sciences 4

Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

##### Mathematical Sciences 3

Computer Science  
 Mathematics

##### Health and Physical Education 2-3

Health Education  
 Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

### MAJOR REQUIREMENTS 72

#### Core Courses 21

FA 1100 Two-Dimensional Design 3  
 FA 1101 Three-Dimensional Design 3  
 FA 1230- 1231 Drawing I and II 6  
 FA 2100 Color Theory 3  
 FA 3200 Painting 3  
 FA 3276 Sculpture Workshop: Fabrication or 3  
 FA 3277 Sculpture Workshop: Modeling and Casting 3

#### Option Requirements 21

Complete one area

#### STUDIO ARTS AND STUDIO CRAFTS

FA 2200 Materials and Techniques or 3  
 FA 3230 Life Drawing 3  
 FA 3260 Printmaking: Relief and Intaglio or 3  
 FA 3261 Printmaking: Lithography and Screen Printing 3  
 FA 3270 Photography or 3  
 FA 3600 Filmmaking 3  
 FA 3800 Philosophy of Art 3  
 One of the following: 3  
 FA 3280 Ceramics I 3  
 FA 3282 Jewelry I 3  
 FA 3284 Introduction to Textiles 3  
 FA 3290 The Woodworker's Art 3  
 Two courses from studio arts and studio crafts offerings not previously taken, selected with departmental advisement 6

#### †ARTIST-TEACHER

FA 3230 Life Drawing 3  
 FA 3260 Printmaking: Relief and Intaglio or 3  
 FA 3261 Printmaking: Lithography and Screen Printing 3  
 FA 3270 Photography 3  
 FA 3280 Ceramics I 3  
 FA 3284 Introduction to Textiles 3  
 FA 3800 Philosophy of Art 3  
 One of the following: 3  
 FA 3282 Jewelry I 3  
 FA 3290 The Woodworker's Art 3  
 FA 3600 Filmmaking I 3

#### Professional Requirements 30

Complete one area of emphasis:

##### STUDIO ART

FA 4285 Fine Arts Seminar 3  
 AH 3740 Modern Art 3  
 Six of the following: FA 2210, 3201, 3230, 3260, 3261, 3271, 3276, 3277, 3600, 3601, 3602, 4200, 4262, 4270, 4276 18  
 Two courses in studio crafts 6

##### STUDIO CRAFT

AH 3740 Modern Art 3  
 FA 4285 Fine Arts Seminar 3  
 One course from every craft area which has not yet been taken 3-9  
 Five to seven of the following: 15-21  
 FA 3260, 3261, 3270, 3281, 3283, 3285, 3286, 3287, 3288, 3289, 3290, 3291, 3600, 4000, 4001, 4280, 4281, 4283

### FREE ELECTIVES 6-7

TOTAL 130

## B.A. IN FINE ARTS

### Option: Interior Design

Coordinator: Dr. Asher Derman  
 VE 308 Ext. 2681

The option in Interior Design is planned to prepare students for entrance into the interior design profession by promoting aesthetic awareness, creative development and an understanding of the designer's responsibility to society. The curriculum provides strong professional training to develop competence in solving problems of design in present and future living and working environments. It in-

cludes instruction in residential, commercial, and public space design and planning. In order to acquire interdisciplinary background in such areas as store planning, industrial design and barrier-free design, students are urged to take additional course work in other departments, for example management science, psychology and industrial studies.

### Level: Liberal Arts

### GENERAL EDUCATION 51-52

#### CORE REQUIREMENTS 18

Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World# 3

#### BREADTH REQUIREMENTS 33-34

##### Humanities 12

\*\*English (2000 level literature or drama) or Speech/Theatre/Media

†Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

##### Social and Behavioral Sciences 12

Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

##### Biological and Physical Sciences 4

Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

##### Mathematical Sciences 3

Computer Science  
 Mathematics

##### Health and Physical Education 2-3

Health Education  
 Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

### COGNATE COURSES 6

AH 1700-1701 Art History I and II 6

### MAJOR REQUIREMENTS 30

#### Required Courses 21

FA 1100 Two-Dimensional Design 3  
 FA 1101 Three-Dimensional Design 3  
 FA 1230- 1231 Drawing I and II 6  
 FA 2100 Color Theory 3  
 FA 3200 Painting 3  
 FA 3276 Sculpture Workshop: Fabrication or 3  
 FA 3277 Sculpture Workshop: Modeling and Casting 3

#### Option Requirements

FA 1400 Drafting for Interior Design I 3  
 FA 3410 Introduction to Interior Design 3  
 FA 3440 Interior Design Studio I 3

### FREE ELECTIVES 36-37

TOTAL 124

### Option: Interior Design Level: Specialized

### GENERAL EDUCATION 51-52

#### CORE REQUIREMENTS 18

Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World# 3

#### BREADTH REQUIREMENTS 33-34

##### Humanities 12

Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media

†Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

##### Social and Behavioral Sciences 12

Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

##### Biological and Physical Sciences 4

Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

##### Mathematical Sciences 3

Computer Science  
 Mathematics

##### Health and Physical Education 2-3

Health Education  
 Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

### COGNATE COURSES 6

AH 1700-1701 Art History I and II 6

### MAJOR REQUIREMENTS 42

#### Required Courses 21

FA 1100 Two-Dimensional Design 3  
 FA 1101 Three-Dimensional Design 3  
 FA 1230- 1231 Drawing I and II 6  
 FA 2100 Color Theory 3  
 FA 3200 Painting 3  
 FA 3276 Sculpture Workshop: Fabrication or 3  
 FA 3277 Sculpture Workshop: Modeling and Casting 3

#### Option Requirements 21

FA 1400 Drafting for Interior Design 3  
 FA 3410 Introduction to Interior Design 3  
 FA 3420 Textiles for Interior Design 3  
 FA 3440 Interior Design Studio I 3  
 FA 3490 Lighting for Interiors 3  
 AH 3790 History of Furniture and Interiors 3  
 AH 3792 History of Architecture 3

### FREE ELECTIVES 24-25

TOTAL 124

B.A. IN FINE ARTS

Option: Interior Design  
Level: Professional

GENERAL EDUCATION 51-52

CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World#	3

BREADTH REQUIREMENTS 33-34

*Humanities 12*  
 AH 1700-1701 Art History I and II 6  
 Two courses from two areas: 6  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 Foreign Languages  
 †Music  
 Philosophy or Religion

*Social and Behavioral Sciences 12*  
 Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

*Mathematical Sciences 3*  
 Computer Science  
 Mathematics

*Health and Physical Education 2-3*  
 Health Education  
 Physical Education

#A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

MAJOR REQUIREMENTS 72

*Required Courses 21*  
 FA 1100 Two-Dimensional Design 3  
 FA 1101 Three-Dimensional Design 3  
 FA 1230- 1231 Drawing I and II 6  
 FA 2100 Color Theory 3  
 FA 3200 Painting 3  
 FA 3276 Sculpture Workshop: Fabrication or 3  
 FA 3277 Sculpture Workshop: Modeling and Casting 3

Option Requirements 21

FA 1400	Drafting for Interior Design	3
FA 3410	Introduction to Interior Design	3
FA 3420	Textiles for Interior Design	3
FA 3440	Interior Design Studio I	3
FA 3490	Lighting for Interiors	3
AH 3790	History of Furniture and Interiors	3
AH 3792	History of Architecture	3

Professional Requirements 30

FA 1401	Drafting for Interior Design II	3
FA 3430	Rendering for Interior Design I	3
FA 3441	Interior Design Studio II	3
FA 4450	Interior Design: Trade Information Business Practices	3
FA 4410	Design Projects for Interiors	3

Complete one area of emphasis: 15

RESIDENTIAL INTERIOR DESIGN

AH 3791	Decorative Arts for Interior Design	3
FA 4400	Residential Interior Design	3
FA 4440	Interior Design Portfolio	3
Two of the following: AH 3740, FA 3060, 3288, 3289, 3302, 3431, 4469; T 3303, 4305 6		

COMMERCIAL INTERIOR DESIGN

FA 3431	Rendering for Interior Design II	3
FA 4420	Commercial Interior Design	3
FA 4440	Interior Design Portfolio	3
Two of the following: FA 3000, 3060, 3302, 3320, 3340, 3794, 4469; ID 3460; T 2501, 3201, 3204, 3303 6		

TEXTILES AND CRAFTS INTERIOR DESIGN

FA 3285	Surface Design on Fabrics	3
FA 3286	Weaving I	3
FA 4440	Interior Design Portfolio	3
Two of the following: AH 3791; FA 3260, 3261, 3287, 3288, 3289, 3320, 3431, 3450, 4469; T 3202 6		

STORE PLANNING AND DESIGN

FA 3411	Fundamentals of Store Planning and Design	3
FA 3412	Practical Studio in Store Planning and Design	3
FA 3431	Rendering for Interior Design II	3
Two of the following: FA 3060, 3320, 4414; ID 3460; T 3201, 3204, 3303 6		

Elective Apprenticeship (3) taken in addition to the 130 required for the degree: FA 4490 Interior Design Apprenticeship

FREE ELECTIVES 6-7

TOTAL 130



B.A. IN FINE ARTS

Option: Visual Communications

Coordinator: Prof. Allen Moore  
 VE 403 Ext. 2686

This option prepares students for careers in the communication arts including graphic design, advertising, illustration and media. The curriculum includes a broad foundation in the visual arts, art history and professional design courses. Interdepartmental study is encouraged in related communications areas such as marketing, printing technology, media studies and computer science. The program provides a blend of experiences—practical, theoretical, aesthetic and technical—which develop entry level job skills as well as establish a broad foundation for professional career growth.

Level: Liberal Arts

GENERAL EDUCATION 51-52

CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World#	3

BREADTH REQUIREMENTS 33-34

*Humanities 12*  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

*Social and Behavioral Sciences 12*  
 Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

*Mathematical Sciences 3*  
 Computer Science  
 Mathematics

*Health and Physical Education 2-3*  
 Health Education  
 Physical Education

#A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

COGNATE COURSES 6

AH 1700-1701	Art History I and II	6
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MAJOR REQUIREMENTS 30

Required Courses 21

FA 1100	Two-Dimensional Design	3
FA 1101	Three-Dimensional Design	3
FA 1230- 1231	Drawing I and II	6
FA 2100	Color Theory	3
FA 3200	Painting	3
FA 3276	Sculpture Workshop: Fabrication or	3
FA 3277	Sculpture Workshop: Modeling and Casting	3

Option Requirements 9

FA 1300	Visual Communications Seminar	3
FA 3300	Lettering	3
FA 3301	Preparing Art for Printing or	3
FA 3310	Commercial Design Fundamentals	3

FREE ELECTIVES 36-37

TOTAL 124

Option: Visual Communications  
Level: Specialized

GENERAL EDUCATION 51-52

CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World#	3

BREADTH REQUIREMENTS 33-34

*Humanities 12*  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

*Social and Behavioral Sciences 12*  
 Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology

*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

*Mathematical Sciences 3*  
 Computer Science  
 Mathematics

*Health and Physical Education 2-3*  
 Health Education  
 Physical Education

#A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

COGNATE COURSES 6

AH 1700-1701	Art History I and II	6
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MAJOR REQUIREMENTS 42

Required Courses 21

FA 1100	Two-Dimensional Design	3
FA 1101	Three-Dimensional Design	3
FA 1230- 1231	Drawing I and II	6
FA 2100	Color Theory	3
FA 3200	Painting	3
FA 3276	Sculpture Workshop: Fabrication or	3
FA 3277	Sculpture Workshop: Modeling and Casting	3

Option Requirements 21

FA 1300	Visual Communications Seminar	3
FA 3270	Photography	3
FA 3300	Lettering	3
FA 3301	Preparing Art for Printing or	3
FA 3310	Commercial Design Fundamentals	3
AH 3748	History of Visual Communications	3

One of the following:  
 FA 3311 Graphic Design  
 FA 3312 Advertising Design  
 FA 3340 Illustration I  
 FA 3670 Television Production I

FREE ELECTIVES 24-25

TOTAL 124

**B.A. IN FINE ARTS**

Option: Visual  
Communications  
Level: Professional

**GENERAL EDUCATION 51-52**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World# 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12
- AH 1700-1701 Art History I and II 6
- Two courses from two areas: 6
  - English (2000 level literature or drama) or Speech/Theatre/Media
  - Foreign Languages
  - †Music
  - Philosophy or Religion

**Social and Behavioral Sciences 12**

- Select from at least three areas:
- Economics or Geography
- History
- Political Science
- Psychology
- Sociology or Anthropology
- Biological and Physical Sciences 4**
- Astronomy Geology
- Biology Meteorology
- Chemistry Physics
- Mathematical Sciences 3**
- Computer Science
- Mathematics
- Health and Physical Education 2-3**
- Health Education
- Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**MAJOR REQUIREMENTS 72**

- Required Courses 21**
- FA 1100 Two-Dimensional Design 3
- FA 1101 Three-Dimensional Design 3
- FA 1230-1231 Drawing I and II 6
- FA 2100 Color Theory 3
- FA 3200 Painting 3
- FA 3276 Sculpture Workshop: Fabrication or 3
- FA 3277 Sculpture Workshop: Modeling and Casting 3

**Option Requirements 21**

- FA 1300 Visual Communications Seminar 3
- FA 3270 Photography 3
- FA 3300 Lettering 3
- FA 3301 Preparing Art for Printing 3
- FA 3310 Commercial Design Fundamentals 3
- AH 3748 History of Visual Communications 3
- One of the following: 3
- FA 3311 Graphic Design
- FA 3312 Advertising Design
- FA 3340 Illustration I
- FA 3670 Television Production I

**PROFESSIONAL REQUIREMENTS 30**

- Complete one area of emphasis:
- GRAPHIC DESIGN**
- FA 3230 Life Drawing 3
- FA 3311 Graphic Design (if not taken before) 3
- FA 3312 Advertising Design (if not taken before) 3
- FA 4302 Portfolio 3
- AH 3740 Modern Art 3
- Two or three of the following: FA 3271, 3304, 3314, 3330, 3340, 3370, 3670 6-9
- Three additional FA courses selected with departmental advisement 9

**ILLUSTRATION**

- FA 3201 Painting II 3
- FA 3230 Life Drawing 3
- FA 3340 Illustration I (if not taken before) 3
- FA 3341 Illustration II 3
- FA 4302 Portfolio 3
- AH 3740 Modern Art 3
- Two or three of the following: FA 2210, 3260, 3261, 3271, 3304, 3330, 3670 6-9
- Two additional FA courses selected with departmental advisement 6

**MEDIA**

- FA 3271 Intermediate Photography 3
- FA 3670 Television Production I (if not taken before) 3
- FA 3600 Filmmaking 3
- FA 4302 Portfolio 3
- Three or four of the following: FA 3370, 3601, 3602, 3671, 3672, 4270; IS 3604, 3605 9-12
- Three additional FA courses selected with departmental advisement 9

**Elective Apprenticeship 6**

- taken in addition to the 130 s.h. required for the degree:
- FA 4300 Communications Apprenticeship

**FREE ELECTIVES 6-7**

TOTAL 130

**Option: Teacher Certification\***

The following program meets the standards for state approval of teacher education in Fine Arts K-12.

\*This program is subject to change. It is valid only for students entering Kean College in the Fall of 1985.

**GENERAL EDUCATION 59#**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World 3

**BREADTH REQUIREMENTS 32**

- Humanities 9
- STM 1900 Speech Communication 3
- AH 1700 Art History I 3
- AH 1701 Art History II 3

**Social and Behavioral Sciences 9**

- Psy 1000 General Psychology 3
- Two courses from two areas: 6
- Economics or Geography
- History
- Political Science
- Sociology or Anthropology
- Biological and Physical Sciences 4**
- Astronomy Geology
- Biology Meteorology
- Chemistry Physics

**Mathematical Sciences 3**

- One course in Mathematics
- Health and Physical Education 4**
- ID 1225 Contemporary Issues in Health 3
- Physical Education 1

†Excluding teaching methods courses  
#The 9 credits under Academic Sequence labeled General Education Component are counted in this total of 59.

**ADDITIONAL GENERAL EDUCATION COURSES 3**

- Psy 2100 Child Psychology or
- Psy 2110 Psychology of Adolescence 3

**B.A. IN FINE ARTS**

**ACADEMIC SEQUENCE 42**

**GENERAL EDUCATION COMPONENT 9**

- FA 1100 Two Dimensional Design 3
- FA 2100 Color Theory 3
- FA 3230 Life Drawing 3

**Other courses required for the Major in Fine Arts 33**

- FA 1101 Three Dim. Design 3
- FA 1230 Drawing I 3
- FA 1231 Drawing II 3
- FA 3200 Painting 3
- FA 3276 Sculp. Workshop: Fabrication or 3
- FA 3277 Sculp. Workshop: Modeling and Casting 3
- FA 3260 Printmaking: Relief or Intalg. or 3
- FA 3261 Printmaking: Litho. & Screen Prntg. 3
- FA 3270 Photography 3
- FA 3280 Ceramics I 3
- FA 3284 Intro. Textiles 3
- FA 3800 Phil. Art or 3
- ID 4850 Interrelating Arts 3
- One of the following: 3
- FA 3282 Jewelry I or 3
- FA 3290 Woodworkers Art or 3
- FA 3600 Filmmaking I 3

**BEHAVIORAL/SOCIAL SCIENCES 12**

- ID 3201 Educational Psychology 3
- ID 2200 Teacher, School and Society 3
- ID 4201 Group Dynamics 3
- ID 4250 School and Society: Cult., Minority & Urban Perspectives 3

**PROFESSIONAL EDUCATION 27**

- ID 2900 Field Experience Multicultural Art Ed. Setting 3
- FA 3900 Intro. Art Education I 3
- FA 3901 Intro. Art Education II 3
- FA 4900 Principles & Techniques of Art Education 4
- FA 4990 Student Teaching 10
- CS 340- Reading in Content Areas 2
- CS 340- Advanced Reading Techniques 2

TOTAL 131



**B.A. IN FRENCH**

Chairperson: Dr. Orlando Edreira  
J309 Ext. 2289

Exploration of French culture and civilization, grammar, history, literature and related areas. Provides excellent background for advanced professional study and a variety of careers.

**GENERAL EDUCATION 51-52**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World# 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*

- Select from at least three areas:  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology

*Biological and Physical Sciences 4*

- Astronomy Geology  
Biology Meteorology  
Chemistry Physics

*Mathematical Sciences 3*

- Computer Science  
Mathematics

*Health and Physical Education 2-3*

- Health Education  
Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

**MAJOR REQUIREMENTS 30**

A student must have language proficiency at the intermediate level prior to beginning major requirements.

**Required Courses 6**

- FR 3100 Advanced French Composition 3
- FR 3105 Advanced French Conversation 3

**Major Electives 24**

Selected from 3000-4000 level courses given in French

**FREE ELECTIVES 42-43**

TOTAL 124

**B.A. IN HISTORY**

Chairperson: Dr. Lawrence Zimmer  
W-205F Ext. 2167

Through the study of history, one can search for an understanding of the history of human groupings—countries, religions and civilizations—which have generated the emotions, symbols and values of contemporary life. The student can appreciate the complex causes of the rise and fall of civilizations and the underlying realities of leadership, social class and power.

**GENERAL EDUCATION 51-52**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World# 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*

- Select from at least three areas:  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology

*Biological and Physical Sciences 4*

- Astronomy Geology  
Biology Meteorology  
Chemistry Physics

*Mathematical Sciences 3*

- Computer Science  
Mathematics

*Health Physical Education 2-3*

- Health Education  
Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

**MAJOR REQUIREMENTS 30**

**Required Courses 18**

- His 1030 History of Western Civilization I or
- His 1040 History of Western Civilization II or one other course in Western Civilization at 1000-2000 level 3
- His 2303 United States History to 1877 3
- His 2304 United States History 1877-Present 3

One 2000-3000 level course selected from: African, Asian, Latin American or Middle Eastern History 3  
Two 3000-4000 level courses in European History 6

**Major Electives 12**

Advanced electives and comparative studies at 3000-4000 level; may include HIS 4990 Senior Seminar

**FREE ELECTIVES 42-43**

TOTAL 124

**Minor in History**

**REQUIREMENTS 21**

- Electives 6*  
two courses selected from the following:  
His 1030 History of Western Civilization I 3
- His 1040 History of Western Civilization II 3
- His 2303 United States History to 1877 3
- His 2304 United States History—1877 to Present 3
- Other introductory 1000 level course(s) in history 3/6
- Electives 15*  
selected from upper division (3000 and 4000 level) courses with departmental advisement

**B.A. IN HISTORY**

**Option: Teacher Certification**

The following program meets the standards for state approval of teacher education in History K-12.

**GENERAL EDUCATION 62**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science & Technology in the Modern World 3

**BREADTH REQUIREMENTS 44**

- \*Humanities 9*  
STM 1900 Speech Communication 3  
Two courses from two areas:  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion
- \*Social and Behavioral Sciences 9*  
Psy 1000 General Psychology 3  
Psy 2110 Psychology of Adolescence 3  
Soc 1000 Social Life and Society or  
Ant 1800 Cultural Anthropology 3

*\*Biological and Physical Sciences 4*

- Astronomy Geology  
Biology Meteorology  
Chemistry Physics

*\*Mathematical Sciences 3*

One course in Mathematics

*\*Health and Physical Education 4*

- ID 1225 Contemporary Issues in Health 3  
Physical Education 1

**Additional General Education Courses 15**

- His 3326 History of New Jersey 3
- Geo 1010 The Earth, the Environment of Man, or  
Geo 3950 The Geography of New Jersey 3
- One of the following:  
Eco 2030 History of Economic Thought  
Eco 2040 American Economic Development 3
- Eco 2041 European Economic Development 3
- Eco 3050 Comparative Economic Systems 3

Choose one of the following: 3

- PS 2110 Amer. State & Local Political Systems
- PS 3150 American Constitutional Law I
- PS 3151 American Constitutional Law II
- PS 3160 Ethnic Politics in the U.S.
- PS 3170 N.J.: State Govt. & Politics
- PS 3310 Comparative Non-Western Govt. Electives 3  
(From any of the above \* areas)

**ACADEMIC SEQUENCE 30**

- MAJOR IN HISTORY**
- His 1030 History of Western Civ. I or  
His 1040 History of Western Civ. II or  
One other 1000-2000 level course in Western Civ. 3
- His 2303 U.S. History to 1877 3
- His 2304 U.S. History 1877 to Present 3
- One 2000-3000 level course from either:  
African, Asian, Latin American, or Middle Eastern History 3
- Two 3000-4000 level courses in European History 6
- Four advanced electives in comparative studies at 3000-4000 level which may include His 4990 Senior Seminar in History 12

**BEHAVIORAL/SOCIAL SCIENCES 6**

- ID 3201 Educational Psychology 3
- ID 2200 Teacher, School & Society 3

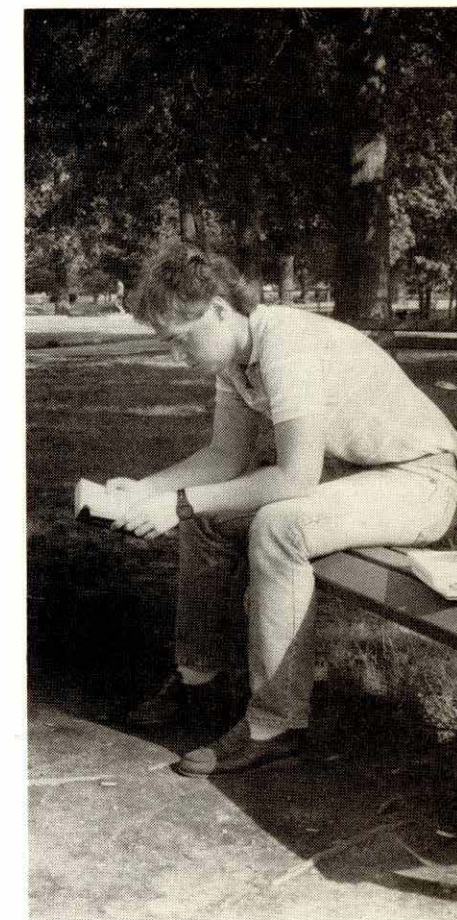
**PROFESSIONAL EDUCATION 27**

- Sophomore Level*  
ICA 2801 Introductory Field Experiences for Subject Area Instruction K-12 3
- Junior Level*  
ICA 3240 Introduction to Social Studies Education with Directed Field Observations 6  
CS 340- Reading in Content Areas 2  
CS 340- Advanced Reading Techniques 2
- Senior Level*  
ICA 4802 Professional Internship for Subject Area Teachers K-12 10  
ICA 4240 Social Studies Curriculum & Methods 4

**FREE ELECTIVES 3**

†Excluding teaching methods courses

TOTAL 128



## B.S. IN MANAGEMENT SCIENCE

Chairperson: Dr. Marcel Fulop  
W403 Ext. 2238

The baccalaureate program in Management Science is an integral part of a growing array of professional programs in the administrative sciences at Kean College. One of the first professional programs developed, the major is now the largest program at the College.

The program leads to the degree of Bachelor of Science. Built on a foundation in the liberal arts and sciences, it combines quantitative techniques and computer applications with recent advances in the behavioral sciences to prepare graduates for managerial decision making.

The curriculum is designed to develop the student's capacity for professional growth and to prepare him or her for entry level managerial positions in areas of finance, accounting, marketing, general management and personnel, and operations research, as well as for further study at the graduate level.

### GENERAL EDUCATION 51-52

#### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World #	3

#### BREADTH REQUIREMENTS 33-34

**Humanities 12**  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

#### *Social and Behavioral Sciences 12*

Eco 1020-1021	Principles of Economics I and II	6
Two courses from two areas:		
History		6
Political Science		
Psychology		
Sociology and Anthropology		
<b>Biological and Physical Sciences 4</b>		
Astronomy	Geology	
Biology	Meteorology	
Chemistry	Physics	

#### *Mathematical Sciences 3*

CpS 1031 Computer Arithmetic Algorithms  
*Health and Physical Education 2-3*  
Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

### COGNATE COURSES 3

CpS 1032 Principles and Procedures of Electronic Data Processing 3

### MAJOR REQUIREMENTS 30

#### *Required Courses 12*

MgS 2110	Quantitative Methods in Management Science	3
MgS 2120	Business Statistics	3
Acc 2200	Principles of Accounting I	3
MgS 3310	Management of Corporate Finance I	3

#### MAJOR ELECTIVES 18

Selected generally or as a concentration as follows:

#### ACCOUNTING

Acc 2210	Principles of Accounting II	3
Acc 3210	Intermediate Accounting I	3
Acc 3220	Intermediate Accounting II	3
Acc 3230	Federal Income Taxes	3
Acc 3240	Cost Accounting	3
Acc 4230	Auditing I	3

#### FINANCE

MgS 3311	Management of Corporate Finance II	3
Five of the following: 15		
Eco 3300	Money and Banking	3
MgS 3300	Personal Finance	3
MgS 3320	Preparation and Analysis of Financial Statements	3

#### MANAGEMENT

MgS 3350	International Business Finance	3
MgS 4300	Investments	3
MgS 4310	Money and Capital Markets	3
<b>MANAGEMENT</b>		
MgS 2030	Business Organization and Management	3
MgS 4050	The Strategic Management Process	3
Four of the following: 12		
MgS 3013	Small Business Management	3
MgS 3030	Personnel Management	3
MgS 3035	Management of Multinational Corporations	3
MgS 3040	Management Information Systems	3
MgS 3050	Management Strategies	3
MgS 4010	Production Management	3

#### MARKETING

MgS 3410	Basic Marketing	3
Five of the following: 15		
MgS 3420	The Retail Marketing Process	3
MgS 3425	Retail Buying and Merchandise Management	3
MgS 3430	Essentials of Advertising	3
MgS 3431	Advertising Campaigns	3
MgS 3435	Sales Management	3
MgS 3440	Fashion Merchandising	3
MgS 3450	Industrial Marketing	3
MgS 3451	Consumer Marketing	3
MgS 3460	Marketing Management	3
MgS 3470	International Marketing	3
MgS 4410	Introduction to Marketing Research	3
MgS 4420	Transportation and Physical Distribution	3

#### QUANTITATIVE METHODS AND OPERATIONS RESEARCH

MgS 3120	Advanced Statistical Methods in Management Science	3
MgS 3130	Forecasting Techniques in Business and Economics	3
MgS 4010	Production Management	3
MgS 4100	Operations Research	3
Eco 4200	Introduction to Econometrics	3

One additional course selected with advisement 3

#### GENERAL MANAGEMENT SCIENCE 18

Six courses selected from the above concentrations, with departmental advisement

### FREE ELECTIVES 39-40

TOTAL 124

## Minor in Management Science

### REQUIREMENTS 18

#### *Required Courses 12*

MgS 2110	Quantitative Methods in Management Science or approved substitute	3
MgS 2120	Business Statistics	3
Acc 2200	Principles of Accounting I	3
MgS 3310	Management of Corporate Finance I	3

#### *Electives 6*

two management science courses or one management science and one 3000-4000 level economics course

## B.A. IN MUSIC

Chairperson: Dr. Michael Montgomery  
TPA123 Ext. 2108

The department offers two courses of study: a liberal arts major with preparation for careers in various phases of music and an education major which meets state certification requirements for teaching public school music. Acceptance to the program involves a placement test and a satisfactory audition in a major performance area (voice or instrument). A minor in music is also available. Auditions should be scheduled prior to registration for the first semester.

Performance in at least two music ensembles is required each semester. Specific requirements related to ensembles are stated in the Ensembles Requirements Document.

All music majors participate as soloists at student recitals each year. They are encouraged to appear in a junior recital and must appear in a senior recital in order to fulfill graduation requirements. Attendance at music forums and student recitals is also required.

### GENERAL EDUCATION 51-52

#### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World #	3

#### BREADTH REQUIREMENTS 33-34

**Humanities 12**  
Courses must be taken in at least three areas  
Mus 1000 Music Survey 3  
(section designated music majors and minors only)  
Three courses from the following: 9

\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Language  
†Music (Mus 1050 Music Fundamentals unless waived; section designated music majors and minors only)  
Philosophy or Religion

#### *Social and Behavioral Sciences 12*

Select from at least three areas:  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology

#### *Biological and Physical Sciences 4*

Astronomy Geology  
Biology Meteorology  
Chemistry Physics

#### *Mathematical Sciences 3*

Computer Science  
Mathematics

#### *Health and Physical Education 2-3*

Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

### MAJOR REQUIREMENTS 49

#### *Required Courses 43*

Mus 1101- 1102	Music Theory I and II	6
Mus 2103	Music Theory III	3
Mus 2104	Music Theory IV	4
Mus 2201- 2202	Music History I and II	6
Mus 28-- , 38--	Ensembles	8
Mus 36--	Private Studio Lessons	16

#### *Major Electives 6*

Music courses selected with advisement

### FREE ELECTIVES 20-24

TOTAL 124

## Minor in Music

Mus 1050 Music Fundamentals is a prerequisite to the minor in music. It may be taken to fulfill the General Education requirements under the humanities cluster or it may be waived by examination.

### REQUIREMENTS 18

#### *Required Courses 9*

Mus 1000	Music Survey	3
Mus 1101	Music Theory I	3
Mus 1201	Basic Sight-singing and Ear Training	3

#### *Electives*

Nine credits in music to be selected with departmental advisement



**B.A. IN MUSIC EDUCATION**

**B.A. IN PHILOSOPHY AND RELIGION**

**Option: Teacher Certification\***

Coordinator: Dr. Doris Engelhard  
TPA 131 Ext. 2654

The following program meets the standards for state approval of teacher education in Music K-12, pending results of the National Teacher's Examination (administered during the senior year).

\*This program is subject to change. It is valid only for students entering Kean College in the Fall of 1985.

**GENERAL EDUCATION 59**

**CORE REQUIREMENTS 18**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual & Cultural Traditions	3
GE 2020	Inquiry & Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science & Technology in the Modern World	3

**BREADTH REQUIREMENTS 29**

*Humanities 9*

STM 1900 Speech Communications  
Mus 1000 Music Survey (section designated music majors and minors only)

Mus 1050 Music Fundamentals (section designated music majors and minors only)

*Social and Behavioral Sciences 9*

Mus 2201 Music History I 3  
Psy 1000 General Psychology 3  
Psy 2100 Child Psychology or  
Psy 2110 Psychology of Adolescence 3

*Biology and Physical Sciences 4*

Astronomy Geology  
Biology Meteorology  
Chemistry Physics

*Mathematical Sciences 3*  
One course in Mathematics

*Health and Physical Education 4*

ID 1225 Contemporary Issues in Health 3  
Physical Education 1

**ACADEMIC SEQUENCE 43**

*General Education Component 12*

Mus 1101 Music Theory I 3  
Mus 2202 Music History II 3  
Music Electives with advisement 6

*Other courses required for the Major in Music 31*

Mus 1102 Music Theory II 3  
Mus 2103 Music Theory III 3  
Mus 2104 Music Theory IV 4  
Mus 28-- 38-- Ensembles (minimum) 7  
Mus 36-- Private Studio Lessons 14

#The 12 credits under Academic Sequence labeled General Education Component are counted in this total of 59. Additional requirements as needed.

Chairperson: Dr. Mervyn D'Souza  
J104B Ext. 2312

A broad-ranged interdisciplinary program designed to help the student understand the ways in which religious and philosophical issues appear throughout our culture, in politics, art, history and ethics.

**GENERAL EDUCATION 51-52**

**CORE REQUIREMENTS 18**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World #	3

**BEHAVIORAL/SOCIAL SCIENCES 12**

ID 3201	Education Psychology	3
ID 2200	Teacher, School, and Society	3
ID 2252	Introduction to Education of the Handicapped	3
ID 4250	School and Society: Cultural Minority and Society	3

**PROFESSIONAL EDUCATION 29**

Mus 15--	Instrumental Methods*	2
Mus 2900	Foundations and Principles of Music Education	3
Mus 3121	Conducting	4
Mus 3310	Elementary School Music	3
Mus 3320	Secondary School Music	3
CS 3320	Dev. Prog. Read	2
CS 340X	Tchg. Read. Sec.	2
Mus 4300	Student Teaching	10

\*Class Violin, Brass, Woodwind, and Percussion each = .5 credit

**ADDITIONAL REQUIREMENTS (as needed)**

Class Piano I-IV (Piano concentration students exempt; may be waived through proficiency examination) 0-4  
Class Voice I-II (Voice concentration students exempt; may be waived through proficiency exam) 0-1  
Piano, Voice, Guitar Repertory (if applicable)

TOTAL 131

**BREADTH REQUIREMENTS 33-34**

*Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

*Social and Behavioral Science 12*

Select from at least three areas:  
Economic or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology  
*Biological and Physical Sciences 4*  
Astronomy Geology  
Biology Meteorology  
Chemistry Physics  
*Mathematical Sciences 3*  
Computer Science  
Mathematics  
*Health and Physical Education 2-3*  
Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**MAJOR REQUIREMENTS 30**

*Required Courses 12*  
Phi 1100 Philosophy or an alternate philosophy course at 1000 level 3  
Phi 2500 Language and Logic or an alternate course in logic selected with departmental advisement 3  
One course in history of philosophy at 2000 level or above 3  
One course in religion at 2000 level or above 3  
*Major Electives 18*  
Selected with advisement

**FREE ELECTIVES 42-43**

TOTAL 124

**B.A. IN POLITICAL SCIENCE**

Chairperson: Dr. Howard Rubin  
J105A Ext. 2066

Political Science concerns itself with the study of governments and governing procedures; what they are, how they change and what one thinks they should be—this includes international organizations, national states and sub-units of nations. While political science is concerned with understanding legislative, executive and judicial bodies that are formally part of government, it is also concerned with

the political activities and influence of many other related groupings. It considers, for example, political parties, voting behavior and interest groups, as well as relevant activities of other organizations and individuals. The entire process by which public policy is formulated and executed ("who gets what, when, where and how") constitutes the field of political science.

**GENERAL EDUCATION 51-52**

**CORE REQUIREMENTS 18**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual & Cultural Tradition	3
GE 2020	Inquiry & Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science & Technology in the Modern World #	3

**BREADTH REQUIREMENTS 33-34**

*Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*

Select from at least three areas:  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology  
(Two courses in U.S. History recommended)

*Biological and Physical Sciences 4*

Astronomy Geology  
Biology Meteorology  
Chemistry Physics

*Mathematical Sciences 3*

Computer Science  
Mathematics

*Health and Physical Education 2-3*

Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**COGNATE COURSES 3**

One course in Public Administration

**MAJOR REQUIREMENTS 30**

*Required Courses 12*  
PS 1010 Introduction to Politics I: Elements of Politics 3  
PS 1020 Introduction to Politics II: Political Institutions 3  
PS 2100 American Government and Politics 3  
One course from political theory area 3

*Major Electives 18*

Six political science courses, five of which must be at 3000-4000 level; may include PA 1000 and PA 3110. No additional public administration courses may be selected without prior departmental approval.

**FREE ELECTIVES 39-40**

TOTAL 124

**Option: Criminal Justice**

Coordinator: Dr. Michael Israel  
J105H Ext. 2508

The Criminal Justice option is housed within the Department of Political Science, where criminal justice students can major in either Political Science or Public Administration. The curriculum is flexible and interdisciplinary which provides great advantages in career choices.

The option provides students with a background in both the substantive and procedural aspects of criminal law, criminology, and the criminal justice system. Many courses include court observations, police patrol, correctional programs, and community based corrections. A broad background in the social sciences is integrated with specialized criminal justice courses.

**GENERAL EDUCATION 51-52**

**CORE REQUIREMENTS 18**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World #	3

**BREADTH REQUIREMENTS 33-34**

*Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*

PS 1010 Introduction to Politics I: Elements of Politics 3  
PS 1020 Introduction to Politics II: Political Institutions 3  
PS 2100 American Government and Politics 3  
Psy 1000 General Psychology 3  
Soc 1000 Social Life and Society 3

*Biological and Physical Sciences 4*

Astronomy Geology  
Biology Meteorology  
Chemistry Physics

*Mathematical Sciences 3*

Computer Science  
Mathematics

*Health and Physical Education 2-3*

Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**COGNATE COURSES 12**

PA 1000	Introduction to Public Administration	3
One course from each of the following three groups: 9		
PS 2110	American State and Local Political Systems	
PA 3030	Administration of Public Finances	
CpS 1931	Computer Arithmetic Algorithms	
Acc 2200	Principles of Accounting I	
MgS 2120	Business Statistics	
PS 3550	Scope and Methods of Political Sciences	
Phi 3307	Philosophy of Law	
Phi 3309	Theories of Punishment	
Soc 2710	Crime and Delinquency	

(cont. on next page)

## B.A. IN POLITICAL SCIENCE

(cont. from p. 89)

### MAJOR REQUIREMENTS 30

*Required Courses 6*

PS 2100 American Government and Politics	3
PS 2600 Criminal Justice in America	3

*Major Electives 24*

Four courses selected with advisement from the following: 12

PS 3630 Police Role in the Community	
PS 3650 Juvenile Justice	
PS 3680 Constitutional Law: Criminal Procedure	
PS 3685 Substantive Criminal Law	
PS 3690 Role of Prosecutor	
PS 4600 Honors Seminar in Criminal Justice	
PS 4650 Community Based Corrections	
PA 3600 Police Organization and Administration	
PA 3610 Correctional Systems	
PA 3620 Probation and Parole	
PA 3640 Comparative Criminal Justice Systems	
PA 3660 White Collar Crime	

Four courses in political science selected with advisement from areas other than criminal justice 12

### FREE ELECTIVES 30-31

TOTAL 124

### Minor in Political Science

#### REQUIREMENTS 21

*Required Courses 9*

PS 1010 Introduction to Politics I: Elements of Politics	3
PS 1020 Introduction to Politics II: Political Institutions	3
PS 2100 American Government and Politics	12

*Electives 12*

four courses in political science, three of which must be at the 3000-4000 level, selected with achievement. May include one course in public administration, with prior approval of department chairperson.

### Option: Teacher Certification

#### GENERAL EDUCATION 59

##### CORE REQUIREMENTS 18

Eng 1020 Composition	3
GE 1100 Emergence of the Modern World	3
GE 1200 Intellectual & Cultural Tradition	3
GE 2020 Inquiry & Research	3
Eng 2203 Landmarks of World Literature	3
GE 2400 Science & Technology in the Modern World	3

##### BREADTH REQUIREMENTS 41

*Humanities 9*

STM 1900 Speech Communications

Two courses from two areas:

†Fine Arts or Art History

Foreign Languages

†Music

Philosophy or Religion

*Social and Behavioral Sciences 9*

Psy 1000 General Psychology	3
Psy 2110 Psychology of Adolescence	3
Soc 1000 Social Life & Society, or Ant 1800 Cultural Anthropology	3

##### Biological and Physical Sciences 4

Astronomy	Geology
Biology	Meteorology
Chemistry	Physics

##### Mathematical Sciences 3

One course in Mathematics

##### Health and Physical Education 4

ID 1225 Contemporary Issues in Health	3
Physical Education	1

†Excluding teaching methods courses

##### Additional General Education Requirements 12

His 2303 U.S. History to 1877	3
His 2304 U.S. History 1877 to Present	3
Geo 1010 The Earth, the Environment of Man, or	
Geo 3950 The Geography of N.J.	3
One of the following:	3
Eco 2030 History of Economic Thought, or	
Eco 2040 American Economic Development, or	
Eco 2041 European Economic Development or	
Eco 3050 Comparative Economic Systems	

### ACADEMIC SEQUENCE 36

#### MAJOR REQUIREMENTS 30

PS 1010 Intro. to Politics I	3
PS 1020 Intro. to Politics II	3
PS 2100 American Govt. & Politics	3
One course in political theory	3

##### Major Electives 18

Choose 6 political science courses. Five at 3000-4000 level. No more than two Public Administration courses. Pub. Adm. 1000 Introduction to Public Administration and/or Pub. Adm. 3110 American Federalism may be taken without prior department approval.

##### Supporting Courses

His 3326 History of N.J.	3
Choose one of the following:	3
His 2381 History of Latin America to 1825, or	
His 2382 History of Latin America 1825 to Present, or	
His 3425 Southeast Asia in the 20th Century or	
His 2500 Survey of African Prehistory & History or	
His 2510 Political History of Africa in the 20th Century	

#### BEHAVIORAL/SOCIAL SCIENCES 6

ID 3201 Education Psychology	3
ID 2200 Teacher, School & Society	3

#### PROFESSIONAL EDUCATION 27

##### Sophomore Level

ICA 2810 Introductory Field Experiences for Subject Area Instruction K-12	3
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##### Junior Level

ICA 3240 Introduction to Social Studies Education with Directed Observations	6
CS 340- Reading In Content Areas	2
CS 340- Advanced Reading Techniques	2

##### Senior Level

ICA 4802 Professional Internship for Subject Area Teachers K-12	10
ICA 4240 Social Studies Curriculum and Methodology	4

TOTAL 128

## B.A. IN PSYCHOLOGY

Chairperson: Dr. Herbert Samenfeld  
J330 Ext. 2170

The major in Psychology is intended to acquaint students with the scientific field of knowledge of human and animal behavior and the research methods by which such knowledge is acquired. The student develops research and measurement skills, interpersonal skills and communication skills in addition to an understanding of the developmental and other processes which ex-

plain human behavior. The person who majors in psychology is generally prepared for a wide variety of roles, including mental health technician, research assistant, parent, teacher, human services provider, personnel administrator, statistical assistant and graduate student in psychology or other professional areas.

### GENERAL EDUCATION 51-52

#### CORE REQUIREMENTS 18

Eng 1020 Composition	3
GE 1100 Emergence of the Modern World	3
GE 1200 Intellectual and Cultural Traditions	3
GE 2020 Inquiry and Research	3
Eng 2203 Landmarks of World Literature	3
GE 2400 Science and Technology in the Modern World #	3

#### BREADTH REQUIREMENTS 33-34

##### Humanities 12

Select from at least three areas:

\*\*English (2000 level literature or drama) or Speech/Theatre/Media

†Fine Arts or Art History

Foreign Languages

†Music

Philosophy or Religion

##### Social and Behavioral Sciences 12

Courses must be taken in at least three areas

\*\*\*Psy 1000 General Psychology 3

Three courses selected from:

Economics, Geography	
History	
Political Science	
Sociology or Anthropology	
(Soc 1000 and one other sociology or anthropology course recommended)	

##### Biological and Physical Sciences 4

(One course in biology, chemistry or physics recommended)

##### Mathematical Sciences 3

(Mat 1052 College Algebra and Trigonometry or Mat 1053 Analytic Geometry recommended)

##### Health and Physical Education 2-3

Health Education

Physical Education

#A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

### MAJOR REQUIREMENTS 31

#### Required Courses 19

Psy 3200 Psychological Statistics	3
Psy 3310 Psychology of Learning	3
Psy 3320 Theories of Personality	3
Psy 4200 Tests and Measurements	3
***Psy 4230 Experimental Psychology	4
***Psy 4940 Seminar: Issues in Contemporary Psychology	3

#### Major Electives 12

Four psychology courses selected with departmental advisement.

### FREE ELECTIVES 41-42

TOTAL 124

\*\*\*May be taken as honors courses.  
See Psy 1005, 4235, 4945

### Minor in Psychology

A variety of specializations may be taken within the minor in psychology. Some examples are: developmental, for those who wish to gain a perspective on human behavior over the lifespan; business-related, for those who plan to work in business or industry; education-related, for those who plan to teach; experimental, for those who wish to develop research skills; professional, for those who plan to enter a graduate program in psychology. Particulars of these or other individualized approaches should be discussed with departmental advisors.

Psy 1000 General Psychology is a prerequisite to all psychology courses.



# B.A. IN PUBLIC ADMINISTRATION

Coordinator: Dr. Susan Lederman  
J105D Ext. 2507

An interest in how government functions on the federal, state or local level and aspirations for a career in the public sector may lead a student to choose Public Administration as a major. As a public administration major, one can develop the knowledge and skills necessary for establishing a successful career in these areas.

## GENERAL EDUCATION 51-52

### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World #	3

### BREADTH REQUIREMENTS 33-34

*Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

### *Social and Behavioral Sciences 12*

PS 2100	American Government & Politics	3
PS 2110	American State & Local Political Systems	3

Select from two areas: 6

Economics or Geography  
History  
Psychology  
Sociology or Anthropology

### *Biological and Physical Sciences 4*

Astronomy	Geology
Biology	Meteorology
Chemistry	Physics

### *Mathematical Sciences 3*

Computer Science  
Mathematics

### *Health and Physical Education 2-3*

Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

## COGNATE COURSES 6

Select two courses: 6

CpS 1031	Computer Arithmetic Algorithms
Acc 2200	Principles of Accounting I
MgS 2120	Business Statistics
PS 3550	Scope and Methods of Political Science

## MAJOR REQUIREMENTS 30

### *Required Courses 12*

PA 1000	Introduction to Public Administration	3
PA 3010	Contemporary Public Organizations	3
PA 3030	Administration of Public Finances	3
PA 3110	American Federalism	3

### *Major Electives 18*

Six public administration courses; may include PS 3140 and PS 3700. No additional political science courses may be elected without prior departmental approval.

## FREE ELECTIVES 36-37

TOTAL 124

## Option: Criminal Justice

Coordinator: Dr. Michael Israel  
J105 Ext. 2508

The Criminal Justice option is housed within the Department of Political Science, where criminal justice students can major in either Political Science or Public Administration. The curriculum is flexible and interdisciplinary which provides great advantages in career choices.

The option provides students with a background in both the substantive and procedural aspects of criminal law, criminology, and the criminal justice system. Many courses include court observations, police patrol, correctional programs, and community based corrections. A broad background in the social sciences is integrated with specialized criminal justice courses.

## GENERAL EDUCATION 51-52

### CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
GE 2400	Science and Technology in the Modern World #	3

### BREADTH REQUIREMENTS 33-34

*Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

### *Social and Behavioral Sciences 12*

PS 1010	Introduction to Political Science I: Elements of Politics	3
PS 1020	Introduction to Political Science II: Political Institutions	3
Psy 1000	General Psychology	3
Soc 1000	Social Life and Society	3

### *Biological and Physical Sciences 4*

Astronomy	Geology
Biology	Meteorology
Chemistry	Physics

### *Mathematical Sciences 3*

Computer Science  
Mathematics

### *Health and Physical Education 2-3*

Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

## COGNATE COURSES 12

PA 1000	Introduction to Public Administration	3
One course from each of the following three groups: 9		
PS 2100	American State and Local Political Systems	
PA 3030	Administration of Public Finances	
CpS 1031	Computer Arithmetic Algorithms	
Acc 2200	Principles of Accounting I	
MgS 2120	Business Statistics	
PS 3550	Scope and Methods of Political Science	

Phi 3307	Philosophy of Law
Phi 3309	Theories of Punishment
Soc 2710	Crime and Delinquency

## MAJOR REQUIREMENTS 30

### *Required Courses 6*

PS 2100	American Government and Politics	3
PS 2600	Criminal Justice in America	3

### *Major Electives 24*

Four courses selected with advisement from the following: 12

PS 3630	Police Role in the Community	
PS 3650	Juvenile Justice	
PS 3680	Constitutional Law: Criminal Procedure	
PS 3685	Substantive Criminal Law	
PS 3690	Role of Prosecutor	
PS 4600	Honors Seminar in Criminal Justice	
PS 4650	Community Based Corrections	
PA 3600	Police Organization and Administration	
PA 3610	Correctional Systems	
PA 3620	Probation and Parole	
PA 3640	Comparative Criminal Justice Systems	
PA 3660	White Collar Crime	
Four courses in public administration selected with advisement from areas other than criminal justice 12		

## FREE ELECTIVES 30-31

TOTAL 124

## Minor in Public Administration

### REQUIREMENTS 18

#### *Required Courses 12*

MgS 2120	Business Statistics or	
PS 3550	Scope and Methods of Political Science	3
PS 2100	American Government and Politics	3
PA 1000	Introduction to Public Administration	3
PA 3110	American Federalism	3

#### *Electives 6*

two courses in public administration, selected with advisement. May include one course in political science with prior approval of departmental chairperson.



**B.A. IN SOCIOLOGY**

Chairperson: Dr. Mary Lou Mayo  
J305B Ext. 2090

The Sociology major prepares students for a variety of introductory level positions in business, government, public service, social research, teaching, and urban affairs. It offers a systematic understanding of the interpersonal dynamics and relationships that arise from human interactions. The major also gives the student exposure to the thinking and procedures of science as applied to humans, individually and collectively. Students interested in specific careers may select their elective courses in areas of concentrated study which include: medical, business and work, research methods, law and society, urban society, or social service. The major also offers courses useful in teaching social science on the secondary school level. Students should consult with departmental advisors about courses in each area of concentration.

**GENERAL EDUCATION 51-52**

- CORE REQUIREMENTS 18**  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World# 3

- BREADTH REQUIREMENTS 33-34**  
*Humanities 12*  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

- Social and Behavioral Sciences 12*  
 Select from at least three areas:  
 Economics or Geography  
 History  
 Political Science  
 Psychology  
 Sociology or Anthropology  
*Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics  
*Mathematical Sciences 3*  
 Computer Science  
 Mathematics

- Health and Physical Education 2-3*  
 Health Education  
 Physical Education  
 #A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

**MAJOR REQUIREMENTS 30**

- Required Courses 12*  
 Soc 1000 Social Life and Society 3  
 Soc 2050 Social Statistics 3  
 Soc 2052 Methods of Social Research 3  
 Soc 3050 Development of Sociological Theory 3  
*Major Electives 18*  
 Six courses at 3000-4000 level

**FREE ELECTIVES 42-43**

TOTAL 124

**Minor in Sociology**

Six courses (18 s.h.) in Sociology: two courses on the 2000 level and three courses on the 3000 and 4000 level.

**Option: Teacher Certification**

**GENERAL EDUCATION 59**

- CORE REQUIREMENTS 18**  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual & Cultural Tradition 3  
 GE 2020 Inquiry & Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World 3

- BREADTH REQUIREMENTS 41**  
*Humanities 9*  
 STM 1900 Speech Communications 3  
 Two courses from two areas:  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion  
*Social and Behavioral Sciences 9*  
 Psy 1000 General Psychology 3  
 Psy 2110 Psychology of Adolescence 3  
 His 2303 U.S. History to 1877 3

- Biological and Physical Sciences 4*  
 Astronomy Geology  
 Biology Meteorology  
 Chemistry Physics

- Mathematical Sciences 3*  
 One course in Mathematics  
*Health and Physical Education 4*  
 ID 1225 Contemporary Issues in Health 3  
 Physical Education 1  
 †Excluding teaching methods courses

**Additional General Education Courses 12**

- His 2304 U.S. History 1877 to Present 3  
 Geo 1010 The Earth, The Environment of Man or 3  
 Geo 3950 The Geography of N. J. 3  
 One of the following: 3  
 Eco 2030 History of Economic Thought  
 Eco 2040 American Economic Development  
 Eco 2041 European Economic Development  
 Eco 3050 Comparative Economic Systems  
 One of the following: 3  
 PS 2110 Amer. State & Local Political Systems  
 PS 3150 American Constitutional Law I  
 PS 3151 American Constitutional Law II  
 PS 3160 Ethnic Politics in the U.S.  
 PS 3170 N.J.: State Govt. & Politics  
 PS 3310 Comparative Non-Western Govt.

**ACADEMIC SEQUENCE 36**

- MAJOR REQUIREMENTS 30**  
 Soc 1000 Social Life & Society 3  
 Soc 2050 Social Statistics 3  
 Soc 2052 Methods of Social Research 3  
 Soc 3050 Development of Sociological Theory 3

- MAJOR ELECTIVES 18**  
 Choose 3 courses at the 3000 level 9  
 Choose 3 courses at the 4000 level 9

**SUPPORTING COURSES 6**

- His 3326 History of New Jersey 3  
 One of the following: 3  
 His 2381 History of Latin America to 1825  
 His 2382 History of Latin America 1825 to Present  
 His 3425 Southeast Asia in the 20th Century  
 His 2500 Survey of African Pre-history & History  
 His 2510 Political History of Africa in 20th Century

**B.A. IN SOCIOLOGY**

**BEHAVIORAL/SOCIAL SCIENCES 6**

- ID 2200 Teacher, School and Society 3  
 ID 3201 Educational Psychology 3

**PROFESSIONAL EDUCATION 27**

- Sophomore Level*  
 ICA 2801 Introductory Field Experiences in Subject Area Instruction K-12 3  
*Junior Level*  
 ICA 3240 Intro. to Social Studies Education with Directed Field Observations 6  
 CS 340- Reading in Content Areas 2  
 CS 340- Advanced Reading Techniques 2  
*Senior Level*  
 ICA 4802 Professional Internship for Subject Area Teachers, K-12 10  
 ICA 4240 Social Studies Curriculum & Methods 4

TOTAL 128

**B.S.W. IN SOCIAL WORK**

Coordinator: Dr. Conrad Graves  
J309 Ext. 2576

The Social Work program is accredited by the Council on Social Work Education and prepares students for immediate employment as professional social workers upon completion of the B.S.W. degree. It further provides the background necessary for advanced training and graduate school. Opportunities exist in the areas of public welfare, probation, child welfare and family service.

**GENERAL EDUCATION 51-52**

- CORE REQUIREMENTS 18**  
 Eng 1020 Composition 3  
 GE 1100 Emergence of the Modern World 3  
 GE 1200 Intellectual and Cultural Traditions 3  
 GE 2020 Inquiry and Research 3  
 Eng 2203 Landmarks of World Literature 3  
 GE 2400 Science and Technology in the Modern World# 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12*  
 Select from at least three areas:  
 \*\*English (2000 level literature or drama) or Speech/Theatre/Media  
 †Fine Arts or Art History  
 Foreign Languages  
 †Music  
 Philosophy or Religion

- Social and Behavioral Sciences 12*  
 Eco 1020 Principles of Economics I 3  
 PS 2100 American Government and Politics 3  
 Psy 1000 General Psychology 3  
 Soc 1000 Social Life and Society 3

- Biological and Physical Sciences 4*  
 Bio 1000 Principles of Biology 4

- Mathematical Sciences 3*  
 Computer Science  
 Mathematics  
*Health and Physical Education 2-3*  
 Health Education  
 Physical Education

- #A Science course may be substituted for this Core Course  
 \*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
 †Excluding teaching methods courses

**COGNATE COURSES 9**

- Soc 2050 Social Statistics 3  
 Psy 2100 Child Psychology 3  
 Soc 2052 Methods of Social Research 3

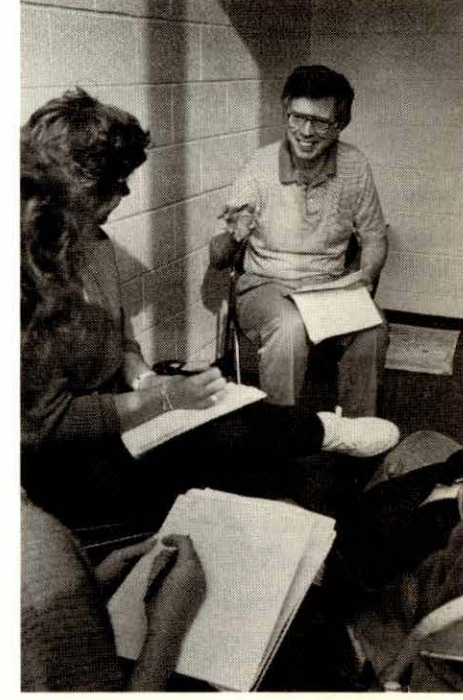
**MAJOR REQUIREMENTS 40**

- Required Courses 34*  
 SW 2900 Introduction to Social Work 3  
 SW 2950 Human Behavior and Social Environment 3  
 \*SW 3900 Contemporary Social Policy and Services 3  
 SW 3950 Methods of Social Work I 3  
 SW 3951 Field Experience I 2  
 SW 3952 Methods of Social Work II 3  
 SW 3953 Field Experience II 2  
 SW 3954 Methods of Social Work III 3  
 SW 3900-3901 Field Practice III and IV 8  
 SW 4910-4911 Senior Integrative Seminar I and II 4

*Major Electives 6*  
 Two additional social work courses selected with the guidance of advisor  
 \*(limited to second semester juniors or seniors)

**FREE ELECTIVES 23-24**

TOTAL 124



**B.A. IN SPANISH**

Chairperson: Dr. Orlando Edreira  
J309 Ext. 2789

Exploration of Spanish culture and civilization, grammar, history, literature and related areas. Provides excellent background for advanced professional study and a variety of careers.

**GENERAL EDUCATION 51-52**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 110 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science and Technology in the Modern World# 3

**BREADTH REQUIREMENTS 33-34**

- Humanities 12*  
Select from at least three areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media  
†Fine Arts or Art History  
Foreign Languages  
†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*

- Select from at least three areas:  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology  
*Biological and Physical Sciences 4*  
Astronomy Geology  
Biology Meteorology  
Chemistry Physics  
*Mathematical Sciences 3*  
Computer Science  
Mathematics  
*Health and Physical Education 2-3*  
Health Education  
Physical Education

#A Science course may be substituted for this Core Course  
\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**MAJOR REQUIREMENTS 30**

A student must have language proficiency at the intermediate level prior to beginning major requirements.

**Required Courses 6**

- Spa 3100 Advanced Spanish Composition 3
- Spa 3105 Advanced Spanish Conversation 3

**Major Electives 24**

Selected from 3000-4000 level courses in Spanish

**FREE ELECTIVES 42-43**

TOTAL 124

**Option: Teacher Certification**

The following program meets the standards for state approval of teacher education in Spanish.

**GENERAL EDUCATION 59**

**CORE REQUIREMENTS 18**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual & Cultural Traditions 3
- GE 2020 Inquiry & Research 3
- Eng 2203 Landmarks of World Literature 3
- GE 2400 Science & Technology in the Modern World 3

**BREADTH REQUIREMENTS 41**

- Humanities 9*  
STM 1900 Speech Communications 3  
Two courses from two areas:  
†Fine Arts or Art History 6  
Foreign Languages  
†Music  
Philosophy or Religion  
*\*Social/Behavioral Sciences (from at least 2 disciplines) 9*  
Psy 1000 General Psychology 3  
Psy 2110 Psychology of Adolescence 3  
One course from any of the following areas:  
Economics, Geography  
History  
Political Science  
Sociology, Anthropology

*Biological and Physical Sciences 4*

- Astronomy Geology
- Biology Meteorology
- Chemistry Physics

*Mathematical Sciences 3*

One course in Mathematics

*Health and Physical Education 4*

- ID 1225 Contemporary Issues in Health 3
- Physical Education 1

†Excluding teaching methods courses

Electives from any of the \* groups 12

**ACADEMIC SEQUENCE 30**

**MAJOR REQUIREMENTS**

A student must have language proficiency at the intermediate level prior to beginning major requirements.

- Spa 3100 Advanced Spanish Composition 3
- Spa 3105 Advanced Spanish Conversation 3
- FL 3010 Comparative Phonology 3
- Spa 3125 Applied Linguistics 3
- Spa 4100 Spanish Grammar: Morphology and Syntax 3
- A course in Spanish literature 3
- Two of the following: 6
  - Spa 3210 Spanish Civilization I
  - Spa 3215 Spanish Civilization II
  - Spa 3223 Latin American Civilization I
  - Spa 3230 Latin American Civilization II
- Electives from Upper Division courses in Spanish 6

**BEHAVIORAL/SOCIAL SCIENCES 9**

- ID 2200 Teacher, School & Society 3
- ID 3201 Educational Psychology 3
- ID 4250 School and Society: Culture Minority & Urban Perspective or 3
- ID 3251 Foundations of Bilingual Education 3

**PROFESSIONAL EDUCATION 27**

*Sophomore Level*

- ICA 2801 Introductory Field Experiences in Subject Area Instruction K-12 3

*Junior Level*

- ICA 3250 Introduction to Foreign Language Education with Directed Field Observations 6
- CS 340- Reading in Content Areas 2
- CS 340- Advanced Reading Techniques 2

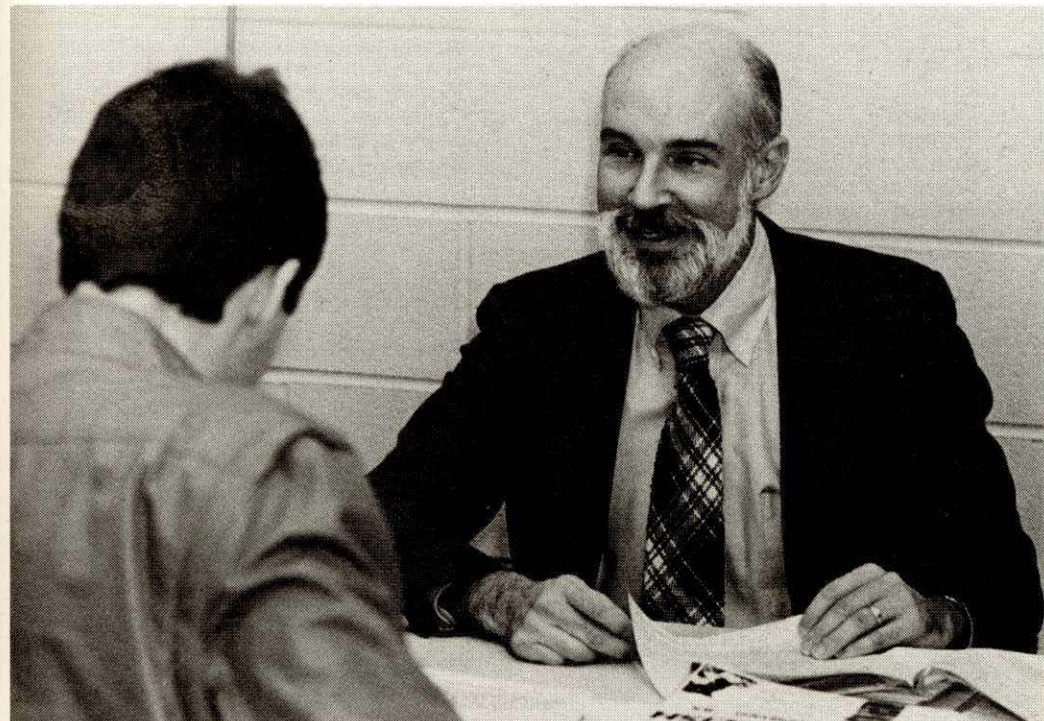
*Senior Level*

- ICA 4802 Professional Internship for Subject Area Teachers K-12 10
- ICA 4250 Foreign Language Curriculum and Methods 4

**FREE ELECTIVES 3**

TOTAL 128

Course overlaps with Behavioral/Social Sciences



# SCHOOL OF HUMANITIES, SOCIAL AND ADMINISTRATIVE SCIENCES

## Course Descriptions

Economics/Management Science			
Dr. Marcel Fulop	W405	2067	
English			
Dr. Bernard Weinstein	W303D	2092	
Fine Arts			
Prof. Leonard Pierro	VE403B	2309	
Foreign Languages			
Dr. Orlando Edreira	J309	2289	
History			
Dr. Lawrence Zimmer	W203E	2167	
Music			
Dr. Michael Montgomery	TPA123	2108	
Philosophy			
Dr. Melvin D'Souza	J104B	2312	
Political Science			
Dr. Howard Rubin	J105A	2066	
Psychology			
Dr. Herbert Samenfeld	J330	2170	
Sociology/Anthropology/Social Work			
Dr. Mary Lou Mayo	J305B	2090	

## ECONOMICS/MANAGEMENT SCIENCES

### Accounting Courses

- Acc 2200 Principles of Accounting I (3)**  
An introduction to accounting concepts and principles involved in financial reports of proprietorships, partnerships and corporations including the techniques of debit and credit trial balances, adjustments and statements. Maximum of 30 students per section.
- Acc 2210 Principles of Accounting II (3)**  
Use of accounting data as an aid in formulating managerial decisions analysis and interpretation of financial statements; the nature, source and flow of funds and the preparation of fund statements; the safeguarding of assets and the checking of the accuracy and reliability of accounting data through the use of internal control systems; special problems in connection with the accounting for cash, payroll and sales tax, investments, fixed assets and liabilities; and the study of cost accounting.  
Prerequisite: Acc 2200.
- Acc 3210 Intermediate Accounting I (3)**  
Study of financial statements for internal management purposes and as a reporting function; theory of classification and evaluation of accounts. Alternative concepts as advanced by professional societies.  
Prerequisite: Acc 2210.  
*Capone, Elakman, Schader, Shapiro*
- Acc 3220 Intermediate Accounting II (3)**  
Continuation of Acc 3210 which is prerequisite.  
*Cogan, Capone, Carlsen, Elakman*

- Acc 3230 Federal Income Taxes I (3)**  
Understanding and solution in tax problems. Practice provided in preparation of returns for individual taxpayers, partnerships, corporations, and in the use of the Tax Guide.  
Prerequisite: Acc 2210.  
*Bornstein, Elakman, Schader, Shapiro*
- Acc 3231 Federal Income Taxes II (3)**  
Continuation of Acc 3230 which is a prerequisite.  
*Bornstein, Elakman, Schader*
- Acc 3240 Cost Accounting (3)**  
Study of management accounting systems and the controllership function as performed by the typical corporate controller in his role as a key member of the management group of a private enterprise business corporation.  
Prerequisite: Acc 3210.  
*Carlsen, Cogan, Elakman*
- Acc 3261 Computer Augmented Accounting (3)**  
Methods of adapting accounting functions to computers. Preparation of payrolls, controlling inventories, recording receivables and payables, and auditing of selected financial transactions.  
Prerequisites: Acc 2210 and CpS 1031.  
*Engelberg*
- Acc 3280 Government and Fund Accounting (3)**  
Fund Accounting preparation and analysis of financial statements for government, schools, hospitals and other not-for-profit organizations.  
Prerequisite: Acc 2200.  
*Schader*
- Acc 4210 Advanced Accounting (3)**  
Practical application of such topics as partnerships, joint ventures, consignments, installment sales, insurance, business in financial difficulty, actuarial accounting, estates and trusts, agency and branch accounting, consolidations, foreign exchange, and accounting for funds.  
Prerequisite: Acc 3220.  
*Bornstein, Schader*
- Acc 4220 Practical Accounting Procedures (3)**  
Prepares the student to function effectively within an accounting environment, using the actual forms, accounting practices and procedures.  
Prerequisite: Acc 3210.  
*Bornstein*
- Acc 4225 Accounting Theory (3)**  
The postulates, principles, rules and procedures underlying the broad area of financial reporting. Study and critical analysis of current accounting and reporting problems. Examination of the Accounting Research Studies and Opinions of the Accounting Principles Board and the Financial Accounting Standards Board.  
Prerequisite: Acc 3220.  
*Schader*

- Acc 4230 Auditing I (3)**  
Professional ethics and the rules of professional conduct as recommended by the American Institute of Certified Public Accountants and other professional societies; the relation of internal control to the independent audit; the preparation of audit programs and discussions concerning accountants' reports and generally accepted auditing standards. This course is specifically designed for students interested in a career in Public Accounting and should be distinguished from Internal Auditing.  
Prerequisite: Acc 3220.  
*Carlsen, Schader*
- Acc 4240 Auditing II (3)**  
Preparation of a set of working papers which includes a complete company audit stressing accepted accounting principles and auditing standards. Audit programs and special reports for various industries are reviewed and analyzed. This course is specifically designed for students interested in a career in Public Accounting.  
Prerequisite: Acc 4230.  
*Carlsen*
- Acc 4250 Comprehensive Public Accountancy Problems (3)**  
Study of problems given in American Institute of Certified Public Accountants (CPA) examination as follows: demonstration and development of analytical techniques; employment of accounting principles, problems on job cost, process cost, and standard cost; goodwill computation; consolidations; fund accounting; inventories; statement of affairs; statement of realization and liquidation; partnership and corporation problems.  
Prerequisites: Acc 3240, 4230.  
*Carlsen, Schader*

### Economics Courses

#### Theory, History, Systems, Environment

- Eco 1020 Principles of Economics I (3)**  
The American Economy; aggregate economics with emphasis on the relationships of income, consumption, savings and investment; money and banking, economic growth and the role of government. (The 1020-1021 sequence may be taken in either order.)
- Eco 1021 Principles of Economics II (3)**  
The allocation of resources and distribution of income through the price systems with emphasis on the American economic system. (The 1020-1021 sequence may be taken in either order.)
- Eco 2030 History of Economic Thought (3)**  
The development of economic thought with special emphasis on Aristotle, Mercantilism, Physiocrats, Hume, the Classical School, Marx and the Neo-Classical School.

- Eco 2040 American Economic Dev. (3)**  
Development of the American economy from colonial times to the present, including the development of agriculture and industry, the impact of technology and the evolution of the banking system.
- Eco 2041 European Economic Development (3)**  
Economic development of Europe from ancient times to the present with emphasis on medieval era, Reformation, Industrial Revolution and conditions in the 20th century.
- Eco 3020 Intermediate Macroeconomics (3)**  
An analysis of economic aggregates. Inter-relationship between money supply, interest rates, output and employment. Classical, Keynesian, post-Keynesian theories.  
Prerequisites: Eco 1020-1021 or consent of instructor.  
*Kempey, Condon*
- Eco 3021 Intermediate Microeconomics (3)**  
Theory of value and distribution. Prices, output and factor proportion problems of firms operating under conditions of competition, monopolistic competition, oligopoly and monopoly.  
Prerequisites: Eco 1020-1021 or consent of instructor.  
*Kempey*
- Eco 3050 Comparative Economic Systems (3)**  
Principles and practices of Capitalism, Socialism and Communism with special emphasis on the economics of the U.S.A. and U.S.S.R.  
*Schumacher*
- Eco 3051 The Capitalist System (3)**  
An analysis of the functioning of the capitalist system with respect to social problems. Conservative and liberal views sympathetic to the market system are contrasted with radical views that are unsympathetic to capitalism.  
Prerequisites: Eco 1020 and 1021.
- Eco 4050 Seminar in Comparative Economic Systems (3)**  
A study of contemporary alternative modes of economic organization and the rationale for these modes. Special attention is devoted to the U.S., Britain, Scandinavia, Yugoslavia, U.S.S.R., and China.  
Prerequisites: Eco 1020 and 1021.
- Development, Planning, Fluctuations**
- Eco 2100 Economic Development (3)**  
A brief survey of development theories. Problems and factors of economic development. Case studies of underdeveloped countries.  
*Mausal*
- Eco 4100 Business Cycle Theory (3)**  
Historical and theoretical analysis of business cycle theory. Measures to control cyclical fluctuations and methods of investment forecasting.  
Prerequisites: Eco 1020-1021 or permission of instructor.  
*Condon*

### Quantitative Methods

- Eco 3200 Introduction to Quantitative Methods in Economics (3)**  
Mathematical statement of equilibrium, maximization and minimization of economic models. Introduction to dynamic techniques and linear production models. Review of necessary mathematics.  
Prerequisites: Eco 1020 and 1021 or permission of instructor.  
*Fulop*
- Eco 4200 Introduction to Econometrics (3)**  
The testing and construction of economic models using mathematical and statistical models. Application in macroeconomics.  
Prerequisites: Eco 1020, 1021 and MgS 2120.

### Monetary and Fiscal Theory and Institutions

- Eco 3300 Money and Banking (3)**  
The nature and function of money, operations of banks, the Federal Reserve System and the Treasury. Income and monetary theory and its applications to achieve stability, employment and growth.  
Prerequisites: Eco 1020-1021 or consent of instructor.  
*Finch, Kempey*
- Eco 3320 Public Finance (3)**  
Principles of taxation, budgeting, public expenditure, debt management and fiscal policy with special reference to Federal, State and local governments.  
Prerequisites: Eco 1020-1021 or consent of instructor.  
*Kempey*
- Eco 4300 Monetary and Fiscal Policy (3)**  
An examination of different hypotheses dealing with the mechanisms through which variations in the national budget and the money supply are said to affect such problems as unemployment, inflation, economic growth and the balance on international payments.  
Prerequisite: Eco 3020.  
*Kempey*
- Eco 4310 Monetary Economics (3)**  
A theoretical analysis of topics in monetary theory and policy; demand and supply of money; monetary influences on prices and interest rates; monetary channels; instruments and targets; lags in the effect of monetary policy.  
Prerequisites: Eco 1020, 1021, 3020.  
Recommended: Eco 3300, 3200, 4200.

### International

- Eco 3400 International Economics (3)**  
Principles of international trade, international finance and exchange. Introduction to the major international organizations.  
Prerequisites: Eco 1020-1021 or permission of instructor.  
*Kim*

### Eco 4420 Advanced International Economics (3)

A theoretical analysis of advanced topics in international trade. An investigation into the causes of international specialization, balance of payments, trade policy and the relation of international trade to growth and development.  
Prerequisites: Eco 3100 and 3110.  
*Kim*

### Eco 4430 Advanced International Monetary Economics (3)

Analysis of the balance of payments accounts and adjustment policies. Determination of exchange rates, foreign exchange markets and the appropriate use of monetary and fiscal policy for a fixed versus a flexible exchange rate system.  
Prerequisites: Eco 3020 and 3021.

### Eco 4440 Seminar in International Economics: Advanced Theory and Policy (3)

Recent literature covering topics in advanced international economic theory and policy. Application of received theory to problems in international trade and finance including international monetary arrangements, the growth of world trade, customs unions, the distribution of income, and economic growth and development.  
Prerequisites: Eco 3400.

### Industrial Organization; Industry Studies

**Eco 3600 Government and Business (3)**  
The development of public policies towards business. The principles, purposes and effectiveness of anti-trust laws and other government regulations of business.  
Prerequisites: Eco 1020-1021 or consent of instructor.  
*Finch*

### Eco 3610 Industrial Organization and Public Policy (3)

An analysis of American market structure with a consideration of the conduct and performance of industries under different modes of competition. An analysis of different public policy measures for improving industrial performance from a social viewpoint.  
Prerequisites: Eco 1020 and 1021.  
*Lampert*

### Eco 3630 The Economics of Transportation (3)

The operation of domestic transport modes, comparing the actual allocation of transportation resources with an ideal allocation dictated by free market criteria. The economic effects of regulation, subsidization and intermodal competition. Evaluation of proposals for integrated operation of the national transportation network.  
Prerequisites: Eco 1020-1021 or permission of instructor.

## Manpower, Labor, Population

**Eco 3800 Labor Economics I (3)**  
Economic analysis applied to the labor market and the wage structure; wage theories and policies; collective bargaining and unionism; labor problems.  
Prerequisites: Eco 1020 and 1021.  
*Kim*

**Eco 3801 Labor Economics II**  
The economic behavior of employment and earnings; wages and inflation; social security and welfare program; public policy; manpower and human capital formation.  
Prerequisites: Eco 1020, 1021 and/or 3800.  
*Kim*

**Eco 3840 Population Economics (3)**  
The economic determinants of population growth. Various economic theories of fertility behavior. The effects of rapid population growth on the economy, especially of population growth on savings, natural resources and the environment.  
Prerequisites: Eco 1020 and 1021 or permission of instructor.  
*Fulop*

## Welfare, Health, Consumer, Urban, Regional

**Eco 2900 The Economics of Poverty (3)**  
The impact of industrialization and urbanization on society and the change in the attitude towards poverty. Theoretical aspects of the nature of poverty and the reasons for its existence in the U.S. The development of federal anti-poverty policies and programs.  
*Finch*

**Eco 2910 Health Economics (3)**  
Use of tools of economic theory in the study of special problems of health resources, markets, manpower shortages, insurance programs, medicare and Medicaid.  
Prerequisite: Eco 1021.

**Eco 2920 Consumer Economics (3)**  
The general framework within which consumer choices are exercised; the tools of personal economic choice applied to consumption and investment decisions.  
Prerequisite: Eco 1021.

**Eco 3930 Urban Economics (3)**  
An investigation of economic influence on the organization and form of urban areas. Problems and public policy issues in urban transportation, public finance, housing and poverty analyzed in relation to the evolving economic structure of metropolitan areas.  
Prerequisites: Eco 1020 and 1021.

**Eco 4930 Regional and Urban Economic Theory (3)**  
A theoretical treatment of the factors that determine the economic base, growth, and development of economic regions with special emphasis on metropolitan regions.  
Prerequisites: Eco 1020 and 1021.

## Geography Courses

**Geo 1010 The Earth, the Environment of Man (3)**  
An introduction to the physical basis of the human habitat; landforms, climate, water, soils, and vegetation; regional patterns and relationships; and the representation of geographic phenomena on maps, charts and graphs with field work. *Credit for graduation will not be granted for both Geo 1010 and Geol 1200.*

**Geo 2010 The Geography of Man (3)**  
An introduction to human occupancy of the earth's varied regions: population distributions, livelihoods, and physical settings.  
Prerequisite: Three hours in geography or permission of instructor.

**Geo 2020 Conservation of Natural Resources (3)**  
A study of relationships among natural resources, technological development, population growth and levels of living as a means of exploring and evaluating the foundations of environmental management and conservation.  
Prerequisite: Three hours of geography or a science or permission of instructor.

**Geo 2300 Climatology (3)**  
Global distribution of the principal climatic elements with emphasis on physical causes of climate. Theories regarding climatic change. (same as Met 2300.)  
Prerequisite: Met 1300 or permission of the instructor.

**Geo 2301 Climatology Lab (1)**  
Techniques in handling climatological data. (same as Met 2301.)  
Corequisite: Geo 2300 or permission of the instructor.

**Geo 3110 Practical Geographic Skills (3)**  
The practical skills and techniques of the geographer, such as those developed for studies in the field and the library, and for graphic, cartographic, written and oral presentation of geographic information.  
Prerequisite: Six hours in geography or permission of instructor.  
*Kelland*

**Geo 3210 Economic Geography (3)**  
Man's economic activities in relation to environmental factors; climate, resources and cultural influences.  
Prerequisite: Six hours in geography or permission of instructor.

**Geo 3410 Urban Geography (3)**  
An examination of urban settlements with special emphasis on the practical application of modern geographic theories to the contemporary urban situation.  
Prerequisite: Six hours in geography or permission of instructor.

**Geo 3420 The Resource Base and the Urban Pattern (3)**  
An investigation of the problems posed by the

multiplicity of users for the limited natural resources of urban areas.  
Prerequisite: Six hours in geography or permission of instructor.  
*Kelland*

**Geo 3920 Geography of Latin America (3)**  
The physical geography and human adaptation in Middle South America.  
Prerequisite: Six hours in geography or permission of instructor.  
*Kelland*

**Geo 3950 The Geography of New Jersey (3)**  
The various geographic aspects of the State of New Jersey: physical environment, cultural diversity, resource base, and economic pattern. Special emphasis placed on the high degree of urbanization which characterizes New Jersey. Field observations included.  
*Kelland*

## Management Science Courses

### General Business, Law, Real Estate

**MgS 1030 Fundamentals of Business Analysis (3)**  
Fundamental economic and business analysis of the domestic market; role of monetary policy; examination of marketing and financial functions and institutions; opportunities in international business. Not open to juniors or seniors in Management Science.  
*Parker*

**MgS 2031 Health Care Organization and Management (3)**  
Introduction to management functions as applied to the health care industry with emphasis on the hospital organization. Explores various organizational concepts within the context of relevant health care problems and issues. (Credit not given for both MgS 2030 and 2031.)  
*Chute*

**MgS 3070 Real Estate Transactions (3)**  
The principles, practices and laws concerning real estate.  
*Battista*

**MgS 3051 Business Law I (3)**  
The basic legal principles that apply to the areas of law and society, contracts, agency and employment, partnerships, corporations. Consideration of the relevant statutes and adjudicated cases which give the student a grasp of the legal risks and results incident to common business relationships and transactions.  
*Capone, Herskovitz*

**MgS 3052 Business Law II (3)**  
The basic legal principles that apply to the areas of personal property, sales, security devices, commercial paper, estates and bankruptcy.  
Prerequisite: MgS 3051.  
*Capone, Herskovitz*

## Management

**MgS 2030 Business Organization and Management (3)**  
Surveys the various forms of business organization and the methods and principles used in production, marketing, credit and competition. Examines the responsibilities of management in the organization of business.  
*Battista, Parker*

**MgS 3013 Small Business Management**  
Formulation of small business strategies involved in evaluating current and future management decisions. Integration of principles of management, economics, marketing, finance and production in the study of small business structures.  
Prerequisite: MgS 2030 or permission of instructor.

**MgS 3030 Personnel Management (3)**  
Personnel recruitment, development, utilization and accommodation within the organization studied within the analytical framework of the behavioral sciences. Effective personnel policies and procedures emphasized with respect to the goals of the organization and the objectives of the organization's members.  
*Parker*

**MgS 3035 Management of Multinational Corporations (3)**  
Management practices of multinational corporations; economic, social-cultural, legal, political and technological constraints faced by managers in multinational companies.  
Prerequisites: MgS 2030 and 3030.

**MgS 3040 Management Information Systems (3)**  
Computer-based information systems for business organizations: management and decision-making; organization and information systems; technology of computer-based systems; systems analysis, design and implementation. Emphasis on managerial issues.  
Prerequisites: CpS 1031, Acc 2200 and MgS 2030.  
*Fenster, Rosenberg*

**MgS 4010 Production Management (3)**  
Analysis of production operations in manufacturing and service operations. Production planning, systems and control introduced and related to such recent methodological developments as inventory forecasting, PERT/CPM, operations scheduling and queuing theory.  
Prerequisites: MgS 2110 and 2120.  
*Hiraoka*

**MgS 4020 Industrial Plant Design and Economics (3)**  
Principles of plant and equipment design; economics in the process industries; cost estimation of material and labor; energy and pollution control considerations.  
Prerequisite: MgS 4010.

**MgS 4050 The Strategic Management Process (3)**  
Parameters of the strategic management process: how organizations analyze and diagnose threats and opportunities in the environment, determine their strategic advantages, consider and choose among alternative strategies, and implement and evaluate chosen strategies.  
Prerequisites: MgS 2030 and senior status or permission of instructor.  
*Parker*

## Quantitative Methods

**MgS 2110 Quantitative Methods in Management Science (3)**  
Application of quantitative methods to business and management problems. Includes functions, matrix and linear algebra, mathematics of finance, differential calculus. Students completing this course will not receive credit for Eco 3200.  
Prerequisite: Two years of high school algebra or equivalent.

**MgS 2120 Business Statistics (3)**  
The methods used for the collection, presentation and analysis of business data, including sampling, the estimation of population parameters, index numbers, probability theory, the normal distribution, confidence intervals, testing of hypothesis, regression and correlation.  
Prerequisite: Two years of high school algebra or equivalent.

**MgS 3120 Advanced Statistical Methods in Management Science (3)**  
Bayesian decision theory and its relationship to classical statistical inference, analysis of variance, nonparametric statistics, maximum likelihood estimation, sampling designs including Monte Carlo sampling and quality controls. Applications to problems in business and economics.  
Prerequisite: MgS 2120 or permission of instructor.  
*Fulop*

**MgS 3130 Forecasting Techniques in Business and Economics (3)**  
Methods of identifying, determining and analyzing economic and business trends in order to forecast future behaviors. Topics include time-series analysis, cross-sectional analysis and applications of regression methods.  
Prerequisite: MgS 2110 and 2120 or permission of instructor.  
*Fulop*

**MgS 4100 Operations Research (3)**  
Quantitative modeling for decision-making and operations research. Linear programming techniques; decision-theory and theory of games.  
Prerequisite: MgS 2110 or 2120.  
*Hiraoka*

**MgS 4110 Case Analysis Using Quantitative and Statistical Methods (2)**  
Comprehensive case analysis and solution requiring principles of operations research and advanced statistics, numerical approximations; simulation techniques.  
Prerequisites: MgS 3120 and 4100.

## Finance

**MgS 3300 Personal Finance (3)**  
Evaluation and structure of a lifetime personal finance program. Financial strategies, alternatives and problems for small investor. Insurance, real estate, estate planning, portfolio investments.  
Prerequisite: Acc 2200.  
*Casson*

**MgS 3310 Management of Corporate Finance I (3)**  
Principles and procedures of finance and their applications to typical management decisions. Financial analysis and planning with emphasis on the procurement and allocation of funds and the concept of the risk-return trade-off.  
Prerequisite: Acc 2200.

**MgS 3311 Management of Corporate Finance II (3)**  
Further application of financial principles with emphasis on long-term management decisions. Maximizing the value of the firm under conditions of risk and uncertainty, through optimal budgeting of capital and use at least-cost funds.  
Prerequisite: MgS 3310.  
*Saffer*

**MgS 3320 Preparation and Analysis of Financial Statements (3)**  
A study of the techniques applied in preparing, analyzing and interpreting the financial statements of industrial and commercial business enterprises. Published statements of business concerns will be discussed and analyzed. Course is designed for both accounting and non-accounting majors.  
Prerequisites: Acc 2210 and MgS 3310.  
*Shapiro*

**MgS 3350 International Business Finance (3)**  
Examines the circumstances under which a business firm operates and finances its activities in a multinational environment. Management, finance and investment problems peculiar to foreign operations. The political environment; investment and incentives for foreign expansion; the financial activities of the multinational corporation and the continuing evolution of this form of organization.  
Prerequisite: MgS 3310 or Eco 3400.

## English Courses

## English as a Second Language

Enrollment in the following twelve courses is limited to students whose native language is not English. There are special requirements related to these courses and their application to the baccalaureate degree. See the Academic Standards and Procedures section of this catalog for all information on the English as a Second Language Program.

The following courses with ESL designations are graded on pass/fail basis only. Credit earned for these courses does not fulfill degree requirements.

**ESL 0100 English as a Second Language I (6)**

Study of English grammar and structure for the student whose native language is not English, with emphasis on speaking and listening skills. Required of all students whose scores on a placement test indicate that they are not prepared to do college work in English.

**ESL 0102 English Pronunciation (3)**

Practice to improve English pronunciation of non-native speakers.  
Prerequisite: Consent of instructor.

**ESL 0103 Listening Skills (3)**

Extensive practice in developing listening skills through exercises in dictation, following oral directions, notetaking, etc.  
Prerequisite: Consent of instructor.

**ESL 0200 English as a Second Language II (6)**

Continued study of English grammar and structure and additional practice in listening and speaking skills in English for students whose native language is not English. Instruction in writing short passages.  
Prerequisite: ESL 0100 or consent of instructor.

**ESL 0202 Pronunciation II (3)**

Continuation of English Pronunciation I for students who require additional practice.  
Prerequisite: ESL 0102 or consent of instructor.

**ESL 0203 Listening Skills II (3)**

Continuation of Listening Skills I. Additional practice in developing listening skills through dictation, oral directions, notetaking, etc.

**ESL 0302 Vocabulary Development I (3)**

Systematic expansion of English vocabulary, including idioms, academic vocabulary, course content vocabulary.  
Prerequisite: ESL 0200 or consent of instructor.

**ESL 0303 English Conversation (3)**

Designed to develop fluency in the spoken language and to enlarge student's English vocabulary, especially with regard to institutions and customs of the United States.  
Prerequisite: Consent of instructor.

**MgS 3460 Marketing Management (3)**

Management of marketing function as it relates to total corporate activity; application of marketing principles in solving problems through case studies, field projects and computer simulation.  
Prerequisite: MgS 3410 or equivalent.  
*Herskovitz, Stern*

**MgS 3470 International Marketing (3)**

Introduction of the multinational enterprise as a participant in world markets, incorporating the marketing concept into a global framework. The course focuses on the environmental and cultural forces affecting marketing program, strategies, and techniques both into and from foreign countries.  
Prerequisite: MgS 3410.  
*Helliwell*

**MgS 4410 Introduction to Marketing Research (3)**

An introduction to the basic tools of marketing research. The application of behavioral science and quantitative methods to solving marketing problems. Hypothesis testing, questionnaire construction, sampling and data analysis. Techniques include statistical inference tests, decision theory, Chi-square, and regression and correlation.  
Prerequisites: MgS 2120 and 3410.  
*Wachtell*

**MgS 4420 Transportation and Physical Distribution (3)**

Management and organization of physical distribution and transportation systems; optimum planning and processing methods; effect of institutions and regulations.

## Cooperative Education

**MgS 4801-4806 Cooperative Education/ Internship (1-6)**

Selected majors test theories learned in the classroom with on-the-job experience in a career-related area. Assignments and placements are arranged by the department. Seminars, student reports and term papers required. Credits earned count as free electives but no more than a total of 40 credits in Management Science, including Coop/Ed/Internship courses can be used toward the 124 credit requirement for graduation.  
Prerequisites: Permission of the department, junior or senior status and G.P.A. of 3.0 in Management Science.

## Interdisciplinary Course

The following is found under Interdisciplinary Courses. (See Index.)

**ID 4545 Marketing Communication Workshop (3)****MgS 4300 Investments (3)**

The basic principles of investments suitable for the individual and for business organizations. A study of the security market, the market influences on security prices, exchange regulation and the development of investment programs.

Prerequisite: MgS 3310.  
*Casson, Engelberg*

**MgS 4310 Capital and Money Markets (3)**

Relationship of financial markets to private and public sectors; workings of the stock market, the corporate bond market, the money market, the government securities market and the international money market.

Prerequisites: Eco 1020, 1021, MgS 3310.  
*Casson*

## Marketing

**MgS 3410 Basic Marketing (3)**

An extensive overview of the field of marketing in one semester. Covers the fundamental concepts of contemporary marketing, its function in the economy, and its relation to today's social concerns. Specific topics include consumer behavior, industrial marketing, product development, channels of distribution, advertising and promotion, and pricing.

**MgS 3420 The Retail Marketing Process (3)**

A channels-of-distribution approach to the retailing function, focusing on the economic and social forces which affect the retail sector, the changing character of retail competition, relations between manufacturers and retailers, and responses to the emerging forces of consumerism. The procedures and problems of retail management, trading area evaluation, store organization and staffing, promotional policies, and measures of retail productivity. Emphasis on the role of the smaller entrepreneur, as well as the large retail organization. Case studies, field projects.  
*Huskovitz*

**MgS 3425 Retail Buying and Merchandise Management (3)**

Analysis of consumer demand and the problems of effectively anticipating and responding to it. Buying policies relating to the selection and development of merchandise resources, pricing and repricing policies; the effect of markup, markdown, stockturn and inventory valuation on profit; elements of fashion merchandising. Case studies, field projects.

Prerequisite: MgS 3420.

**MgS 3430 Essentials of Advertising (3)**

Survey of the entire field of advertising and its place in the total marketing program. Covers advertising objectives, research methods, management of advertising campaigns, advertising copy and production. Focus on the functional interrelationships of advertisers, agencies, and media.

Prerequisite: MgS 3410.  
*Helliwell*

**MgS 3431 Advertising Campaigns (3)**

Analyzes current advertising campaigns in terms of research, creative and media strategies used to achieve promotion and market mix goals. Students prepare goal-oriented advertising campaigns.  
Prerequisite: MgS 3430.

**MgS 3435 Sales Management (3)**

Sales management from various perspectives: the selling "environment" and the societal, economic, ethical, legal and governmental elements comprising this environment; general management functions, including planning, organizing, motivating and controlling; functions peculiar to sales management, including sales forecasting and selecting, training, motivating and compensating of sales people; relationships between the sales department and other internal and external departments and public.

Prerequisite: MgS 3410.  
*Battista, Helliwell*

**MgS 3440 Fashion Merchandising (3)**

A study of fashion as a force in contemporary life and as a major determinant in the marketing of diverse categories of products. Theory of the fashion cycle, evolutionary development of fashions, analysis of demand for fashion goods, structure and operation of the fashion industries both at manufacturing and retail levels. Techniques and problems of fashion buying, display and promotion.  
Prerequisite: MgS 3410.

**MgS 3450 Industrial Marketing (3)**

Marketing of products and services to industry from functional and management perspectives. Emphasizes new product introduction, legal and social constraints and salesmanship currently used in industry.  
Prerequisites: A basic introductory marketing course: MgS 3410.  
*Wachtell*

**MgS 3451 Consumer Marketing (3)**

Marketing of products and services to the consumer, from functional and management perspectives. Emphasizes new consumer product introductions, environmental and social constraints, and personal factors influencing consumer choices.  
Prerequisites: MgS 3410.  
*Stern*

**MgS 3455 Services Marketing (3)**

Conceptual foundations of services marketing in consumer sector of banking, brokerage, insurance, health, technology, and professional service areas of the economy. Application of fundamental marketing processes to the service firm, in the profit and not-for-profit sector. An examination of differences between service marketing and product marketing.

Prerequisite: MgS 3410.  
*Stern*

## Writing

Eng 1020 is prerequisite to all English courses beyond the 1000 level except in cases of exemption or permission of the instructor.

**Eng 1020 Composition (3)**

Introduction to expository writing; emphasis on logic, rhetoric and critical thinking.  
Prerequisite: Satisfactory performance on writing sections of the New Jersey College Basic Skills Placement Test or successful completion of developmental writing requirements.

Core Course, General Education; requirement of all students.

**Eng 2000 Writing About Literature (3)**

A course to develop skills in critical reading and analytical writing.

*Bauer, Katz*

**Eng 2010 Creative Writing (3)**

Instruction and practice to develop skills in the writing of fiction, poetry and drama.

*Banks, Okin*

**Eng 3000 Writing Poems (3)**

Probe and practice in the nature of poetic vision as expressed through the symbols of early language on to contemporary patterns.  
*Thomason*

**Eng 3005 Advanced Composition (3)**

Instruction and practice in techniques of writing to develop a dependable prose style.

*Bauer, Katz, Weinstein*

**Eng 3010 Playwriting (3)**

A course in the writing of play scripts.  
*Okin*

**Eng 3090 Business, Professional and Technical Writing (3)**

The study and practice of writing reports, letters, resumes, memoranda, research projects, proposals, etc. with emphasis on audience appraisal, writing content, and presentation in terms of current techniques.

**Eng 4005 Writing Fiction (3)**

The theory and practice of writing fiction.

## Language

**Eng 2101 Origin and Structure of the English Language (3)**

An overview of the history of the English language and of the grammatical structure in English.  
Prerequisite: Eng 1020.

*Brilliant*

**Eng 3101 (2100) Introduction to Linguistics (3)**

Introduction to the systematic study of language and the chief concerns of modern linguistics.

*Brilliant*

**Eng 3105 Language, Meaning and Human Behavior (3)**

Theories of meaning and behavioral consequences of language.

*Thomason*



**Eng 3510 Aspects of the Novel (3)**

Such novelists as Joyce, Gide, Kafka, Lawrence, Hemingway, Faulkner, and Woolf, studied in relation to their antecedents in the realistic novel of the 19th century.

*Reicker*

**Eng 3515 Modern Drama (3)**

Representative plays of such dramatists as Ibsen, Strindberg, Pirandello, Beckett, Miller, and Genet, discussed in terms of form and dramatic structure.

*Dolkey, Okin, Scott*

**Eng 3517 Biography (3)**

Study of biography in its various manifestations from ancient times to the present.

*DeFanti*

**Eng 3525 Literary Naturalism (3)**

An intensive study of naturalism as a reflection of social and scientific ideas and of aesthetic developments in literature during the late nineteenth and the early twentieth centuries.

*Bauer*

**Eng 3530 The Short Story (3)**

The history, theory, and practice of the European and American short story.

**Eng 3535 Science Fiction (3)**

Study of major themes in the development of science fiction in short stories and novels from H. G. Wells to present writers, such as Blish, Bradbury, Campbell, Clarke, Pohl, and Simak.

**Eng 3540 The American Short Story in Film (3)**

Analyses of representative American short stories from Hawthorne to Updike and study of films based upon them.

*Bauer*

**Eng 3550 Characters in American Drama (3)**

A study of American drama with special focus on characterization.

*Dolkey*

**Eng 3555 Comedy (3)**

An analysis of the form and structure of comic drama from Aristophanes to Neil Simon.

*Dolkey*

**Eng 4500 Three Masters of Modern Poetry (3)**

An intensive study of three major twentieth century figures, such as Yeats, Pound, Eliot, Williams, or Stevens.

Prerequisite: Three hours of poetry.

*Other courses acceptable for the Genre requirement of English majors:*

**Eng 3316, 3320, 3330, 3601, 4430**

**Eng 4550 Theory and Criticism: The Literature About Literature (3)**

Reading and examination of theory and criticism from classical times to the present approached as a literary genre with its own conventions and subject matters. Emphasis on theories of literary imagination; problems of literary representation; poetics; the question of authority; and the value of literature.

Prerequisite: Two literature courses or permission of instructor.

*Katz*

**Honors Program**

*The Honors Program in English is designed to provide able and strongly motivated students with the opportunity to study subjects in greater depth than in standard courses, to carry on independent research, and to develop creative projects.*

*Honors courses are open to all Kean College students who have fulfilled the General Education Eng 1020 requirement or its equivalent, and who have a "B" or better average.*

**Eng 3600 Honors Course in Modern Literature (3)**

Honors course for qualified students who will be expected to study selected literary works dating from the late nineteenth century to the present.

Prerequisite: "B" average. *May not be taken if student has already completed Eng 3350.*

**Eng 3601 Honors Course in Poetry (3)**

This course concerns itself with the corpus, origins, and use of poetry. It stresses poems as prisms of a period and a culture along with their relation to social currents of our time. Emphasis is on major, significant, or revealing poems, far-ranging in time and place.

Prerequisite: "B" average. *Credit not given for both Eng 3500 and 3601.*

*Thomason*

**Eng 3603 Honors Course in Greek and Roman Literature in Translation (3)**

The most important landmarks in Greek and Roman literature, with emphasis on the development of genres and themes and their continuation into the present. May be taken in place of, but not in addition to, Eng 3300.

Prerequisite: "B" average.

**Eng 3605 Honors Course in Language, Meaning and Human Behavior (3)**

This course focuses on the field of general semantics, specifically on the various social aspects of language behavior.

Prerequisite: "B" average or better. *Credit not given for both Eng 3105 and Eng 3605.*

*Thomason*

**Eng 4600 Senior Honors Seminar (3)**

Individual and intensive reading and investigation in a selected area of a thesis or a creative project.

Prerequisites: Senior status, English major, "B" or better average. (Qualified juniors may enroll in the seminar with permission of the department.)

**Eng 4620 Honors Course in Robert Frost (3)**

Examination of Frost through a close reading of his poetry, supplemented by the essays, letters, and biography. Frost's traditionalism, his wide range of poetic forms and content, his persona or mask, and his place in American Literature.

Prerequisite: "B" average.

*Evans*

**Eng 4630 Honors Course in James Joyce (3)**

A study of the major works of Joyce, from *Dubliners* to selections from *Finnegans Wake*, with emphasis on the development of Joyce's art.

Prerequisite: "B" average.

*Kennedy*

**Themes****Eng 2705 "Rags to Riches" (3)**

The political, social and psychological effects of wealth on human behavior as expressed in literature.

*Evans*

**Eng 2715 British Women Writers: A Feminist Perspective (3)**

An analysis of the fiction of some women writers from a feminist point of view.

**Eng 2725 The Other Americans: A Survey of Minority Group Writing (3)**

Survey, from Colonial times to the present, of minority group writers, consciously writing to protest their alienated status and to maintain their group's identity.

*Kafka*

**Eng 3705 Parodies Lost: Man Looks at Himself Seriously through Humor (3)**

A serious study of what man laughs at and why, from Aristophanes to the present, including movies, advertising, and magazines such as *Mad*, *National Lampoon*, and *PMLA*.

*Reicker*

**Eng 3710 Coming of Age (3)**

A study of the themes of childhood, loss of innocence and initiation into maturity, as they are treated in a variety of English and continental literary works.

*O'Day*

**Eng 3715 Changing Aspects of Love in Western Literature (3)**

The changing aspects of love as depicted in the Western literary tradition from Homer to the present.

*Kafka*



**Eng 3723 The American Jewish Novelist and the Modern World (3)**

An in-depth study of several Jewish-American novelists who have helped to shape and reflect contemporary literature and contemporary social and psychological consciousness.

Weinstein

**Eng 3730 Theme and Motif in Literature (3)**

A study of selected themes in literature of the Western world, their origins, variations and adaptability to different literary eras, with attention given to the effects of symbol, motif and genre on theme.

**Eng 3735 Saints, Sinners, and Fools (3)**

A thematic study of the Grail legend, the Faust legend, and the Rogue hero, in terms of origins, symbols and motifs.

Scotto

**Eng 3740 In Sickness and In Health: Medicine in Literature (3)**

A thematic exploration of literature dealing with medicine, medical practices and medical personnel.

Evans

**Eng 4710 Literature and the Supernatural (3)**

The influences on our culture of magic, occult philosophies, witchcraft, and the para-normal, examined from traditional and contemporary sources in literature and the arts.

**Seminars and Independent Study**

**Eng 4800 Senior English Seminar (3)**

Intensive study and research in an area of literature or language proposed by the student; culminates in a thesis which is presented to the seminar group.

Prerequisite: Senior status, English major. (Qualified Juniors may enroll with permission of the department.) Required for English majors. (Eng 4600 Senior Honors Seminar may be substituted.)

**Eng 4808 Publishing Field Placement (12)**

Supervised placement in a publishing house, where a student will learn the rudiments of the publishing trade through broad exposure to the operations of the press and/or intense training in a particular department.

Prerequisite: Selection by committee composed of English Department chairperson, instructor of Publishing Field Placement course, and one other member of the English Department. Special prerequisite: Ability to type.

O'Day

**Eng 4810, 4811, 4812 Independent Study for English Majors (1,2, or 3)**

Opportunity for English majors of advanced ability to pursue in a concentrated manner a specific area of study in literature, language, or writing not available through current course offerings. Approximately forty-five hours of supervised work required for each credit hour. May be repeated for credit. *Only six credits may be applied toward the 124 credits for graduation.*

Prerequisites: Twelve hours in English, and permission of instructor. (The 12 hour requirement can be waived with permission of the department chairperson.)

**Journalism**

**Eng 2920 Journalism (3)**

Instruction in theoretical and practical journalistic techniques, with assignments in feature writing, reporting, proofreading and editing.

Fyne

**Eng 2935 Feature Writing in Journalism (3)**

Instruction and practice in the principles of writing feature articles for both newspapers and magazines with emphasis on style, organization, and human interest.

Fyne

**Eng 2975 Journalism in the Free Society (3)**

Analysis and evaluation of the journalist's role in a free society emphasizing the need for objective reporting.

Fyne

**Eng 3920 Specialty Writing in Journalism (3)**

Instruction and practice in the principles of writing specialty articles, such as sports and business articles, editorials and performing arts reviews for newspapers and magazines.

Prerequisite: Eng 2920.

Fyne

**Eng 3925 Editing Skills in Journalism (3)**

Instruction and workshop experience in the principles and practical skills required for editing newspapers and magazines, including newsroom administration.

Fyne

**Eng 3930 Sports Writing in Journalism (3)**

Instruction and practice in the principles of writing timely sports articles for newspapers and magazines.

Prerequisites: Eng 2920 or permission of instructor.

**Eng 4910 Journalism/Public Relations Field Placement (6)**

Supervised placement in the fast-moving city room environment of a daily newspaper or in an established public relations department of a large firm, institution, company, etc., where a student will learn to write news stories under actual deadline conditions.

Prerequisites: Eng 2920, 2935, 3925, typing ability and prior permission of instructor.

Fyne

**Interdisciplinary Courses**

*The following courses are found under Interdisciplinary Courses. (See Index.)*

**ID 3010 Philosophy in Literature (3)**

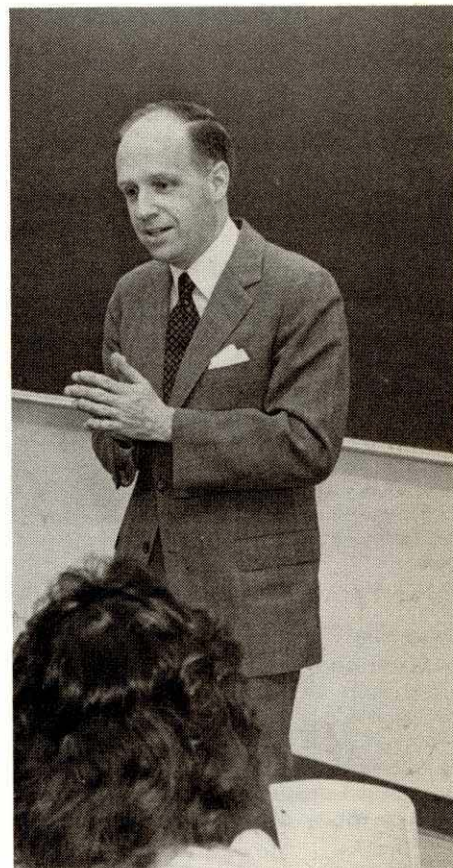
Pashman, Weinstein

**ID 3600 Romance of Words (3)**

**ID 3660 Continental and American Realism (3)**

Bauer

**ID 4545 Marketing Communications Workshop (3)**



## Speech/Theatre/Media Courses

### **STM 1000 Developmental Oral Communication (3)**

Examination of individual's role in the oral communication process and development of speech skills with emphasis on message development, idea organization, delivery and language usage. To be taken on a pass/fail basis.

### **STM 1900 Speech Communication (3)**

Theory and practice of speech-communication principles in interpersonal, small group and large audience situations.

### **STM 2401-4 Theatre Laboratory I-IV (1/2, 1/2, 1/2, 1/2)**

Practical laboratory with production experiences provided in all areas of theatre. Students receive grade of pass or fail.

### **STM 2705 Oral Interpretation (3)**

A literary analysis and performance course in the oral reading of prose, poetry and drama. Prerequisite: STM 1900.

*Dunn*

### **STM 2905 Public Speaking (3)**

The preparation and delivery of various types of speeches for public audiences. Prerequisite: STM 1900 or permission of instructor.

*D. Lumsden, G. Lumsden*

### **STM 2910 Parliamentary Procedure and Debate (3)**

A study of the principles of parliamentary procedure which govern formal groups and legislative bodies, integrated with a study of reasoning, evidence, proof, and formal debate.

Prerequisite: STM 1900 or permission of instructor.

*D. Lumsden*

### **STM 2915 Group Discussion (3)**

An analysis of the theory and process involved in group problem solving. Prerequisite: STM 1900.

*G. Lumsden, Remmers*

### **STM 2920 Introduction to the Theatre (3)**

A basic survey of the art and craft of the theatre.

*Murphy*

### **STM 2925 Technical Theatre Production (3)**

An introduction to the basic elements of scenery, costuming, make-up, sound and lighting.

*Harper*

### **STM 2935 Movement I (3)**

Control of the actor's body, including the art of pantomime, and historic dance for the stage.

Prerequisite: STM 2960.

### **STM 2945 Scenic Design I (3)**

Problems in concept and composition, examined through the development of ground plans, elevations, construction drawings, and model-making. Emphasis placed upon designing for proscenium, open, and arena-type stages.

Prerequisite: STM 2925.

*Harper*

### **STM 2955 Makeup I (3)**

Basic straight and character makeup, using grease-paint, pancake and plastics.

### **STM 2960 Acting I (3)**

A study of the development of acting as an art form with practice in theories and techniques, including some work in characterization.

*Murphy*

### **STM 2970 Nature and Experience of Communication (3)**

A survey of the theories and models of communication and their relevance in intra- and interpersonal communications through practical application.

Prerequisite: STM 1900.

*D. Lumsden, G. Lumsden*

### **STM 2975 Introduction to Mass Media (3)**

The effects of mass media in American society and the development of taste for the popular arts.

Prerequisite: STM 1900.

*Londino, Trzesinski*

### **STM 3405 Costuming I (3)**

Historical survey of costume and its application to stage costume design and construction.

Prerequisite: STM 2920.

*Dunn*

### **STM 3510 Communication for Allied Health Professionals (3)**

Health care delivery as a communication system; development of abilities as communicators within the system.

Prerequisite: Acceptance in the Physical Therapy program.

*D. Lumsden, G. Lumsden*

### **STM 3700 Speech for Broadcasting (3)**

Radio and television announcing techniques, including voice improvement, interviewing, narrating, disc jockeying.

Prerequisite: STM 1900.

*Trzesinski*

### **STM 3825 Public Relations (3)**

Principles and practices of planning and implementing public relations programs.

Prerequisite: STM 2975.

*Remmers*

### **STM 3900 Voice and Speech (3)**

Voice and speech improvement, treating the voice as a subjective, living phenomenon.

Prerequisite: STM 1900.

### **STM 3905 Stage Dialects (3)**

Dialect as a tool in oral interpretation, using phonetic transcription to develop auditory, muscular and imitative speech skills.

Prerequisite: STM 1900.

### **STM 3915 Oral Interpretation of Children's Literature (3)**

Theory and practice in the oral interpretation of children's literature with special emphasis on storytelling, prose and poetry reading.

Prerequisite: STM 1900.

*Dunn*

### **STM 3920 Theatre Speech and Scene Studies (3)**

The traditional course in speech for the actor comprising study and practice in using the voice, breath control, articulation-enunciation-pronunciation, phonetics, projection and acoustics. Practical application is supplied in scene studies.

Prerequisite: STM 2960.

### **STM 3925 Directing I (3)**

Examination of the historic and contemporary role of the director; the preparation of a prompt book and work from play selection through rehearsal procedures to final production. Techniques applied to scene and one-act production by student-directors.

Prerequisite: STM 2960 or permission of instructor.

*Murphy*

### **STM 3930 Acting II (3)**

An advanced course in acting as a creative process, including acting theories, methods and styles.

Prerequisites: STM 1900 and 2960.

### **STM 3935 Creative Drama (3)**

Exploration of the creative process, involving use of body movement, color, sound, light, space and language.

*Dunn*

### **STM 3939 Dramatics Workshop for Children (3)**

Theories and techniques of creative drama with young people. Students plan and lead workshops with local children.

Prerequisite: STM 2960 or 3925 or permission of instructor.

### **STM 3940 Children's Theatre (3)**

Theory and practice of the theatre for children.

### **STM 3945 Lighting Design (3)**

An introductory course covering the historical, theoretical, and practical aspects of stage light design from early Greek theatre to the present. Design theory and application are stressed.

Prerequisite: STM 2925.

*Harper*

**STM 3950 The Art of Persuasion (3)**

Examination of the nature of persuasion in human interaction situations.

Prerequisite: STM 1900.

*D. Lumsden, G. Lumsden*

**STM 3952 Creating Plays for Children's Theatre (3)**

The theory, method and practice of writing plays for children's theatre production. Scenes from plays will be staged in class. Prerequisite: Any course in written composition.

**STM 3955 Children's Theatre on Tour (3)**

A contemporary play for children will be chosen, staged and toured to local schools, orphanages or children's hospitals. Students will either act in, design or stage manage the production. May be repeated once for credit. Prerequisites: STM 2925, 3940 or permission of instructor.

**STM 3958 Kean Players on Tour (3)**

An intensive student experience in touring classic or contemporary plays to high school, adult, and senior citizen groups. May be repeated once for credit.

Prerequisites: STM 2960 or 2925 and permission of instructor.

**STM 3960 Advanced Technical Theatre Production (3)**

An advanced course in traditional and contemporary solutions to technical production problems. Additional expenses of approximately \$15.00 may be incurred by the student.

Prerequisite: STM 2925.

*Harper*

**STM 3965 Organizational Communication (3)**

Examination of communication behavior in an organizational structure, implementation of communication principles through in-class presentations.

Prerequisite: STM 1900.

*D. Lumsden*

**STM 3975, 3976, 3977 Theatre Practicum: Independent Study (1,2,3)**

An individualized course focusing on a specific aspect of production. Emphasis is placed on practical application of technical or performance skills in an actual production. Approximately 45 hours supervised work required for each credit hour.

Prerequisites: Permission of speech/theatre/media coordinator, depending on nature of project, STM 2925, 2960 or 3925.

**STM 3980 Broadcast Journalism (3)**

Instruction in theoretical and practical radio and television journalism techniques with writing assignments in news, features, sports, editorials and documentaries.

Prerequisite: STM 2975.

*Trzesinski*

**STM 3985 History of Broadcasting (3)**

The development of radio and television in the United States with emphasis on the major social, cultural, economic and political influences on the broadcast media.

Prerequisite: STM 2975.

*Londino, Trzesinski*

**STM 3990 Development of Cinematic Drama (3)**

Survey of the historical development of motion pictures: themes, aesthetic standards, special attitudes and directional styles studied through lectures and film screenings. Laboratory fee.

Prerequisite: STM 1900.

*Trzesinski*

**STM 4401-4 Advanced Theatre Laboratory I-IV (1/2, 1/2, 1/2, 1/2)**

Practical laboratory with production experiences provided in all areas of theatre. Students receive grade of pass or fail.

**STM 4910 Oral Interpretation of Poetry (3)**

An exploration of the interrelatedness of the poet, the poem and the reader in the oral performance of poetry.

Prerequisite: STM 2705.

*Dunn*

**STM 4920 Readers' Theatre (3)**

The group approach to the oral interpretation of literature.

Prerequisite: Interview with instructor.

*Dunn*

**STM 4925 Directing II (3)**

Artistic and technical problems in directing the classical, the period, the avant-garde and experimental play.

Prerequisites: STM 1900 and 3925.

*Murphy*

**STM 4930 Acting as a Profession (3)**

Study of the professional New York theatre emphasizing the audition and the process of beginning a career.

Prerequisites: STM 2960, 3930 or permission of instructor.

**STM 4940 History of the Theatre (3)**

Theatrical production from early primitive rituals down to today's theatre. Emphasis placed on directors, actors and theorists. Field trips to theatrical productions (approximate cost \$20.00.)

*Murphy*

**STM 4945 Contemporary London Theatre (3)**

A survey of the development of British theatre and contemporary London theatre. Initial seminar discussions and lectures given at Kean College of New Jersey; experiences in London, England included.

Prerequisite: Interview with the instructor.

*Murphy, Dunn*

**STM 4950 Seminar in Theatre Administration (3)**

A problem-centered seminar dealing with contemporary theatre administration.

Prerequisites: STM 1900, 2925 and 2960.

*Dunn*

**STM 4955-4956-4957 Cooperative Education: Work-Study in Speech/Theatre/Media (3,6,12)**

Supervised placement in an employment position utilizing background in speech, theatre and/or media. May be repeated for credit. A maximum of twelve (12) credit hours in cooperative education may be applied towards the B.A. Degree. No more than forty semester hours in speech-theatre-media studies may be counted towards the 124 hours for the degree; therefore, credits in cooperative education which exceed the total of forty are taken beyond the degree requirements.

Prerequisites: Minimum of 24 hours in speech/theatre/media courses and approval of speech/theatre/media coordinator.

**STM 4960 Acting for Television (3)**

The skills of television acting with practical, on-camera experiences.

Prerequisites: STM 2960; junior or senior level STM option majors only.

*Murphy*

## Fine Arts Courses

## General and Introductory

**FA 1000 Introduction to Art (3)**

An art experience which gives students the opportunity to deal directly with materials and ideas. Through the studio emphasis chosen, students explore the nature of art and the creative process. For non-art majors only.

**FA 3050 The International Design Conference in Aspen (3)**

Opportunity to attend and participate in the IDCA held annually in Colorado. Experts of international stature, both theorists and practitioners of design-related activities, come together each year for a week in Aspen to share their experiences and knowledge. Conference is addressed to those interested in such design fields as graphic design, interior design, architecture, industrial design and media design. Travel costs incurred by the students.

Prerequisite: Permission of instructor.

**FA 3060 Design and the Urban Environment (3)**

Physical and aesthetic problems of the city environment—its growth, planning, housing, transportation and other facilities. Studio approach to the solution of regional planning problems.

**FA 4000-4001 Independent Study in Fine Arts (3,3)**

Independent projects or research in a specific field of interest, by arrangement with a sponsoring professor. May be repeated once for credit.

Prerequisite: Permission of instructor.

## Design

**FA 1100 Two-Dimensional Design (3)**

Basic studio course which deals with the structuring of two-dimensional space. Such visual elements as shape, line, color and texture are explored in relationship to communicating ideas. May be taken concurrently with FA 1101.

**FA 1101 Three-Dimensional Design (3)**

Relationships between concept, visual organization and three-dimensional materials and processes are studied. The integrative nature of the design process and to competence in working with a variety of materials are dealt with in the studio environment.

**FA 2100 Color Theory (3)**

A studio course which investigates various color theories and their interaction with perceptual, cultural and individual responses.  
*Cade, Cornish*

**FA 3100 Advanced Design (3)**

Studio course for the advanced student who has dealt successfully with basic two and three dimensional design. Assignments will vary depending on student strengths and interests, but the design process will be probed for common qualities. Some research in design is a required portion. May be repeated once for credit.

Prerequisite: FA 1100, 1101.

**FA 3110 Introduction to Computer Graphics (3)**

Studio course which emphasizes high quality visual output while exploring the computer as a tool for the artist and designer.

Prerequisites: CpS 1031 or equivalent, FA 1100.

## Studio

**FA 1230 Drawing I (3)**

Materials and methods in drawing, with emphasis on personal vision and expression. Historic development of style in drawing.

**FA 1231 Drawing II (3)**

Problems of organization and expression in space of natural and man-made forms. Observation of appearance, development of perception and training of memory; structure and creative interpretation of form.

Prerequisite: FA 1230.

**FA 2210 Watercolor (3)**

Materials and methods in the art of watercolor with experience in both opaque and transparent pigments. Theory and studio practice with historic developments in style.

*Burger*

**FA 3200 Painting I (3)**

Studio course in design and expression in various media of painting, dealing with both traditional and experimental methods.

Prerequisites: FA 1100, 1230; Prerequisite or corequisite: FA 2100.

**FA 3201 Painting II (3)**

A studio course for the more advanced student of painting. The emphasis is directed toward developing the individual's form of expression in painting.

Prerequisite: FA 3200.

**FA 3230 Life Drawing (3)**

A study of human form through drawing from life. The human form in the expression of other cultures and our own. May be repeated once for credit.

Prerequisite: FA 1230.

**FA 3260 Printmaking: Relief and Intaglio (3)**

Studio course with concentration on the processes of relief and intaglio printing. Original images and concepts through a variety of techniques.

Prerequisite: FA 1230.

*Metzger, Pierro*

**FA 3261 Printmaking: Lithography and Screen Printing (3)**

Studio course with concentration on the processes of lithography and screen printing (serigraphy). Original images and concepts through a variety of techniques.

Prerequisite: FA 1230.

*Metzger, Pierro*

**FA 3270 Photography (3)**

Basic photography, including exposure, developing, printing, and enlarging. Historic and contemporary forms in photography.

*Tatton*

**FA 3271 Intermediate Photography (3)**

Technical procedures for achieving consistent and high quality images in black-and-white photography. The student should have an adjustable small-format camera.

Prerequisite: FA 3270 or equivalent.

*Tatton*

**FA 3276 Sculpture Workshop: Fabrication (3)**

Studio course in the materials and methods of sculpture emphasizing individual expression and selection through fabrication techniques. Field trip(s).

Prerequisites: FA 1100, 1101, 1231; prerequisite or corequisite: FA 2100.

*Nicolescu, Topper*

**FA 3277 Sculpture Workshop: Modeling and Casting (3)**

A studio course in the materials and methods of sculpture emphasizing individual expression and selection, through modeling and casting processes. Field trip(s).

Prerequisite: FA 1100, 1101, 1231, 2100 (or as co-requisite).

Required as a choice of either FA 3276 or 3277 as part of the Core Program.

**FA 3280-3281 Ceramics I & II (3,3)**

Three-dimensional form as it relates to clay. Deals with hand-building, potter's wheel, surface treatment, chemical and physical properties of clay and glazes. Ceramics as an art form. FA 3280 is prerequisite to FA 3281.

*Buncamper, Jones*

**FA 3282 Jewelry I (3)**

Introductory studio course which explores design and construction of jewelry. Basic forming methods are covered, as well as methods of relating other materials to metal. Jewelry and metal design as an art form in our own time and in selected historic periods.

Prerequisite: FA 1000 or FA 1101.

*Goodwin*

**FA 3283 Jewelry II (3)**

Intermediate studio course continuing the work of FA 3282. Study of more advanced techniques, such as centrifugal casting, enamelling, electroplating, niello and lapidary.

Prerequisite: FA 3282.

*Goodwin*

**FA 3284 Introduction to Textiles (3)**

Introductory studio course in textiles as an art form. Weaving, knotting, applied decoration, study of fibers. Historical development and contemporary forms in textiles.

**FA 3285 Surface Design on Fabrics (3)**

The materials and processes for embellishment of the fabric surface including the direct application of dyes, resist dyeing and printing.

**FA 3286 Weaving I (3)**

Studio course in the design and production of woven fabrics. Techniques in the use of primitive, table and floor looms. Fiber, color, and draft analysis.

**FA 3287 Weaving II (3)**

Continuation of content introduced in FA 3286. Multi-harness looms and innovative techniques.

Prerequisite: FA 3286.

**FA 3288 Furniture-Making I (3)**

Designing and making furniture as an art form. Emphasis on creativity and originality. Techniques of fabrication, joining and finishing. Integration of concept, materials and process. Materials include wood, metal, plastic, fiber.

**FA 3289 Furniture-Making II (3)**

Further experimentation with furniture as an art form. Individual problems in designing and making furniture continuing previously acquired skills. Emphasis on originality and creativity with design as a process. May be repeated once for credit.

Prerequisite: FA 3288 or IS 1300 or permission of instructor.

**FA 3291 Design for Cabinetry (3)**

Aesthetic, architectural and functional aspects of cabinetry for interior and wood-working designers. Principles of design, utilization and installation of cabinet/storage forms. Study of, and studio practice with, standard and experimental materials and procedures.

Prerequisite: FA 1401 or FA 3288 or permission of instructor.

**FA 3295, 3296, 3297 The Artist's Studio (1, 2, 3)**

Specialized studio course taught off campus in an artist's studio by an artist. Offerings vary, but provide opportunities not available on campus. May be repeated for credit.

Prerequisite: Permission of sponsoring professor.

**FA 4200 Advanced Painting (3)**

Development of a series of paintings in a single medium.

Prerequisite: FA 3201.

**FA 4262 Advanced Printmaking (3)**

Course for the advanced student familiar with basic printmaking techniques and concepts. Course work on an individualized basis.

Prerequisites: FA 3260 and 3261.

*Metzger, Pierre*

**FA 4270 Problems in Photography (3)**

Individual and group problems in photography, selected to build upon previously acquired photographic skills, amplify expressive powers, and strengthen understanding of two-dimensional design.

Prerequisite: FA 3271 or equivalent.

*Tatton*

**FA 4276 Advanced Sculpture (3)**

Continuation of experiences in FA 3276 and 3277 on an individualized basis.

Prerequisites: FA 3276, 3277.

*Nicolescu, Topper*

**FA 4280 Advanced Ceramics (3)**

Continuation of the experiences of FA 3281 on an individualized basis. Professional quality in design and skill, clay preparation, glaze theory, firing, kiln construction. May be repeated once for credit.

Prerequisite: FA 3281.

*Buncamper, Jones*

**FA 4281 Whiteware (3)**

Study of whiteware techniques, using casting, throwing, and handbuilding skills. Development of porcelain, white stoneware, and talc clay bodies; with subsequent use and development of celadons, low fire glazes, underglazes, and overglaze technique.

Prerequisite: FA 3281 or permission of instructor.

*Buncamper*

**FA 4283 Advanced Jewelry (3)**

Continuation of experience of FA 3283 on individualized basis. Techniques such as granulation, electroforming, forging, silversmithing; exotic materials and specialized equipment. May be repeated once for credit.

Prerequisite: FA 3283.

*Goodwin*

**Visual Communications****FA 1300 Visual Communications Seminar (3)**

Media used in visual communications. Advertising and editorial art and design: advertising agency skills, marketing study, photography, various specialties. The interrelationships of media and evaluation of their uses. For fine arts majors enrolled in visual communications option only.

**FA 2303 Calligraphy Fundamentals (3)**

An approach to beautiful lettering as it evolved from cursive writing of the Renaissance to contemporary typefaces. In-depth study of Chancery Cursive, Black Letter, Uncial and Roman faces. Emphasis on execution employing both visual and mechanical aspects.

**FA 3300 Lettering (3)**

Studio course to develop skill in lettering. Type indication for layouts. Finished lettering for reproduction. Emphasis on proportion, spacing, structure, recognition of basic styles and their appropriate usage. Historical development of letter forms.

Prerequisite: FA 1100.

**FA 3301 Preparing Art for Printing (3)**

Development of studio skills utilized in the preparation of camera-ready art work for reproduction by commercial printing processes; use of drafting tools, paste-up, single-color and pre-separated multi-color art work, key-line mechanicals, paper and ink selection specifications to printer; introduction to principles of letterpress, gravure, screen printing; with emphasis on offset lithography.

**FA 3304 Typography (3)**

Studio course to explore typography as a craft and as a design tool. Typesetting hardware, specialized vocabulary, copyfitting and type specification, layout and type indication. Communication design problems emphasizing typography as a primary visual element.

Prerequisite: FA 3300.

**FA 3310 Commercial Design Fundamentals (3)**

Overview of the use of art and design for communication in a modern industrial society. Designing with typography, photography, illustration, and other elements specific to the mass communication media. Two and three-dimensional media including graphic design, advertising, editorial, packaging and display. Emphasis on development of executional skills for rough and comprehensive layout.

Prerequisites: FA 1230, 3300.

**FA 3311 Graphic Design (3)**

The use of art and design for the varied communications needs of business and industry exclusive of advertising. Trademarks and corporate identity, brochures, publications, environmental graphics, posters, etc. Emphasis on maximizing creativity within given framework.

Prerequisite: FA 3310.

**FA 3312 Advertising Design (3)**

The use of art and design as a selling tool in the mass communications media. Magazine and newspaper ads, television and radio commercials, outdoor advertising, direct mail. The single ad and the ad campaign. Emphasis on co-ordinating written and visual communications skills in directing persuasive advertising messages to a target audience.

Prerequisite: FA 3310.

**FA 3313 Graphic Design For Non-Print Media (3)**

Application of graphic design in non-print communication media-television, film, audio-visual.

Prerequisite: FA 3310.

**FA 3314 Three Dimensional Graphic Design (3)**

Graphic design as it pertains to packaging, display, exhibit and environmental design. Emphasis on creative problem-solving with specific practical objectives and limitations.

Prerequisites: FA 1101, 3310.



**AH 3740 Modern Art (3)**

From cubism to abstract expressionism. Study of major artists, art works and movements in Europe and America from 1900 to 1945.

*Stotz, Wallach*

**AH 3741 Contemporary Art (3)**

Study of painting and sculpture in Europe and America from 1945 to present.

*Stotz*

**AH 3745 Impressionism and Post-Impressionism (3)**

European art from Manet to Van Gogh and Toulouse-Lautrec.

*Wallach*

**AH 3748 History of Visual Communications (3)**

Historical survey of visual communications from ancient times to present, including illustration, book design, printing, graphic design, advertising, photography, film and electronic media.

*Wallach*

**AH 3750 The Art of China (3)**

The art of China from Neolithic time to the Ch'ing Dynasty.

*Giacalone*

**AH 3751 The Art of Japan (3)**

The art of Japan from prehistoric times to the end of the Edo Period with emphasis on painting, sculpture and architecture.

*Giacalone*

**AH 3752 The Art of India**

The art and culture of India including Buddhist art, Moslem art, Hindu art and art of Southeast Asia.

*Giacalone*

**AH 3760 Medieval Art (3)**

Architecture, painting, and sculpture of the Early Medieval, Romanesque, and Gothic periods.

*Stotz*

**AH 3770 Greek and Roman Art (3)**

Works of art from Archaic and Classical Greece, the Hellenistic Age and the Roman Republic and Empire.

*Wilber*

**AH 3780 The History of African Art (3)**

A study of geographical, historical, and anthropological backgrounds of the people of Africa, south of the Sahara. In addition, the course will survey the art of the West Guinea coast and some North Central African states (Mali, Upper Volta, Liberia, Ivory Coast, Nigeria, Cameroons, and the Congo).

**AH 3781 Afro-American Art (3)**

An historical survey of Afro-American artist from the Colonial era to the present, including crafts, painting, sculpture, graphics and photography.

**AH 3790 History of Furniture and Interiors (3)**

Chronological examination of the formal, structural and motivating characteristics of furniture and interior decoration in significant periods, especially the classic, Gothic, Italian, French, English, and American. Textiles, their qualities, designs, and colors. Special attention given to the adaptation of past work to contemporary usage.

**AH 3792 History of Architecture (3)**

Chronological survey of selected key monuments from prehistory to the twentieth century emphasizing structural, programmatic, and formal analysis. Site planning of buildings and the evolution of cities and city planning. Architecture as deeply related to the culture and events of its time.

**AH 3794 History of Ornamentation and Motifs (3)**

Ornamentation and ornamenting motifs in architecture, furniture and textiles as seen in contemporary societies. For interior design and art history majors only.

Prerequisites: FA 3790, 3792 and permission of instructor.

**AH 3795 Pre-Columbian Arts of Central America (3)**

A survey of the cultures of Mexico and Central America prior to the conquests of Cortez beginning in 1519, considering the archaeological evidence in a chronological sequence, stressing their arts and using interdisciplinary methodologies.

**AH 4700 Problems in Art History (3)**

Principles and problems in art history studied through independent research and group critique. Advanced level.

Prerequisite: Permission of instructor.

**AH 4710 History of Drawings and Prints (3)**

Techniques, uses, and historical development of drawing and printmaking, with emphasis from Durer and Rembrandt through the modern era.

Prerequisite: FA 1701 or 3260 or 3261.

*Lord*



## FOREIGN LANGUAGES

## Foreign Language Courses

**FL 3010 Comparative Phonology (3)**

Basic phonological components of present day Spanish and their relationship to modern English. Application of phonological principles to the teaching of Spanish. Required of Spanish majors in the secondary collateral program.

Prerequisite: Eng 2100 or permission of instructor.

*Aleman*

**FL 3100-3105 Masterpieces of French Literature in Translation I & II (6)**

A study of the forms of the French novel and drama, represented by such authors as Racine, Moliere, Sartre, Beckett, Laclos, Balzac, Proust; ideas expressed in French literature by such writers as Montaigne, Descartes, Pascal, Voltaire, Rousseau, Camus.

*Wendell*

**FL 3200 Man and Society in Modern German Literature (3)**

Writers' responses to political and social challenges in the Weimar Republic, Nazi Germany, and contemporary East and West Germany. Authors include Brecht, Hesse, Thomas Mann, Heinrich Böll, Günter Grass.

**FL 3300-3305 Masterpieces of Hebrew Literature in Translation I & II (3,3)**

An introduction to the masterpieces of Hebrew literature in English translation. Reading, interpretation, and analysis of selected texts in Hebrew literature, from ancient to modern times. An introduction by means of modern critical methods of study to the history, literature and religion of Israel in the selected excerpts of Old Testament, Mishnah, Talmud, Gronica, Shmuel Hanaggid, Al Harizi, Mendelssohn, Wesly, Krochmal, J.L. Gordon, Ahad Ha'Am, Bialik and Agnon.

Prerequisite: Eng 1000.

**FL 3310-3315 Hebrew Culture I & II (3,3)**

An illustrated lecture course on the culture and civilization of Jews from Biblical to medieval and modern times. Emphasis placed on religion, culture, education, economic and social problems.

**FL 3320 Modern Israeli Literature from Israeli Independence to the Present in Translation (3)**

Reading, interpretation and analysis of Modern Israeli Literature. Emphasis on the writing of Bialik, Tchernichovsky, Agnon, Hazaz, Greenberg and Shlonsky.

**FL 3325 The Holocaust Literature in Translation (3)**

Reading, interpretation and analysis of Holocaust Literature. Emphasis on such writings as Agnon, Greenberg, Ringelblum, Kaplan, Huberban, Lazar, and Wiesel. Course includes readings based on memoirs, testimonies and diaries of victims as well as survivors of the Holocaust.

**FL 3400-3405 Italian Literary Heritage I & II (3,3)**

Course designed to acquaint students with the development of Italian literature through the study of some of its most important and representative works.

Prerequisites: It 1101-1102 or Eng 2201-2202 or permission of instructor.

**FL 3510-3515 The Literature of the Spanish People I & II (3,3)**

Course designed to acquaint students with the development of Spanish literature through the study of some of its most important and representative works.

## Interdisciplinary Courses

*The following are found under Interdisciplinary Courses. (See Index.)*

**ID 3600 The Romance of Words (3)**

*Aleman*

**ID 3660 Continental and American Realism (3)**

*Gnarra*

## French Courses

## Language

**Fr 1101-1102 Elementary French (6)**

Designed to enable the student to achieve a ready comprehension of spoken French, ability to speak in clear, simple sentences and considerable ease in reading French. Credit given only upon completion of both semesters.

**Fr 1110-1115 French Abroad (Summer Program at Angers, France) (6)**

A four-week program of intensive practice in spoken and written French at the Centre International d'Etudes Francaises de l'Universite Catholique de l'Ouest in Angers, France. Excursions to the castles of the Loire Valley, Brittany and Paris are included. Open to students with very elementary or no experience in the language.

Prerequisite: Age eighteen or over, regardless of educational affiliation.

**Fr 2101-2102 Intermediate French (6)**

Designed to expand the student's competence and fluency in speaking, understanding, reading and writing French, and to acquaint the student with various aspects of the literature and culture of France. Credit given only upon completion of both semesters.

Prerequisite: Fr 1102 or permission of instructor.

**Fr 2105 Practical Conversational French (3)**

A course designed to increase proficiency in speaking French, stressing practical daily conversation.

Prerequisite: Fr 1102 or equivalent.

**Fr 2110-2115 French Abroad—Summer Program (6)**

A four-week program of intensive practice in spoken and written French at the Centre International d'Etudes Francaises de l'Universite Catholique de l'Ouest in Angers, France. Excursions to the castles of the Loire Valley, Brittany and Paris are included.

Prerequisite: One year of college French.

**Fr 3100 Advanced French Composition (3)**

An intensive review of grammar and study of the problems of written composition in the French language.

Prerequisite: Fr 2102 or permission of instructor.

**Fr 3105 Advanced French Conversation (3)**

Intensive concentration on vocabulary building, pronunciation, diction, phonetics, through oral discussions. Not open to native speakers.

Prerequisite: Fr 2102 or permission of instructor.

**Fr 3110-3115 French Aboard (Summer Program at Angers, France) (6)**

A four-week program of intensive practice in spoken and written French at the Centre International d'Etudes Francaises de l'Universite Catholique de l'Ouest in Angers, France. Excursions to the castles of the Loire Valley, Brittany and Paris are included.

Prerequisite: Two years of college French.

**Fr 3120 French Phonetics (3)**

Comprehensive study of French speech sounds, problems of articulation, rhythm, accentuation and intonation. Intensive language laboratory work.

Prerequisite: Fr 2102 or permission of instructor.

**Fr 3125 Applied Linguistics in Teaching and in Structural Literary Criticism (3)**

Linguistic analysis of current French speech based on historical evolution of the language. Analysis of the major problems encountered by English-speaking people in learning French. Structuralism and structuralist literary criticism.

Prerequisite: Fr 2102 or permission of instructor.

**Fr 3150 French for Business I (3)**

Introduction to mercantile practices, documents and terminology needed for understanding of the business usages of French in France and French speaking countries. Course conducted in French.

Prerequisite: French 2102 or permission of instructor.

**Fr 4100 French Grammar: Morphology and Syntax (3)**

An in-depth study of the morphological and structural features of French grammar with special emphasis on those areas of interference with the English language that present the greatest difficulties to the student of French.

Prerequisite: Fr 3100 or permission of instructor.

**Fr 4105 Translation (French-English) (3)**

Designed to teach the student the basic techniques of oral, literal and literary translation from French into English and from English into French.

Prerequisite: Fr 3100 or permission of instructor.

**Survey**

**Fr 3200 Masterpieces of French Literature I (3)**

Reading, interpretation and analysis of selected texts in French literature, from medieval times. Course conducted in French. Prerequisite: Fr 2102 or permission of instructor.

**Fr 3205 Masterpieces of French Literature II (3)**

Continuation of Fr 3200. Prerequisite: Fr 2102 or permission of instructor.

**Fr 3210 French Civilization I (3)**

An illustrated lecture course on the culture and civilization of France from the Middle Ages to modern times. Emphasis on geography, history, arts and letters, economic and social problems, philosophy and education. Conducted in French.

Prerequisite: Fr 2102 or permission of instructor.

*Markle*

**Fr 3215 French Civilization II (3)**

Continuation of Fr 3210, with emphasis on the nineteenth and twentieth centuries.

Prerequisite: Fr 2102 or permission of instructor.

*Markle*

**Periods**

**Fr 4300 French Medieval Literature (3)**

A study of selected works illustrating the development of French literature from its first manifestations to the fifteenth century. Course conducted in French.

Prerequisite: Fr 2102 or permission of instructor.

*Markle*

**Fr 4305 French Literature of the Renaissance (3)**

A study of selected readings illustrating the evolution of the literary esthetics of the sixteenth century. Course conducted in French. Prerequisite: Fr 2102 or permission of instructor.

*Wendell*

**Fr 4311-4312 The Classical Age I & II (3,3)**

A study of the classical literary movement of the seventeenth century and its impact on all subsequent writers. Course conducted in French.

Prerequisite: Fr 2102 or permission of instructor.

*Markle*

**Fr 4315 The Age of Enlightenment (3)**

Introduction to eighteenth century French literature with the emphasis on the participation of Montesquieu, Voltaire, Diderot and Rousseau in the intellectual and aesthetic currents of the period. Conducted in French.

Prerequisite: Fr 2102 or permission of instructor.

*Wendell*

**Fr 4320 Twentieth Century French Literature I (3)**

Introduction to the expression of the various philosophical, religious and esthetic tenets in the poetry, plays and fiction from the beginning of the twentieth century to the end of World War II. Course conducted in French. Prerequisite: Fr 2102 or permission of instructor.

*Gnarra*

**Fr 4325 Twentieth Century French Literature II (3)**

Introduction to existentialist and avant-garde literature. Course conducted in French. Prerequisite: Fr 2102 or permission of instructor.

*Gnarra*

**Genres**

**Fr 4400 Introduction to the History of French Drama (3)**

The major developments of French dramatic literature from its origin to the present times, studied through the most representative plays of the various periods. Conducted in French. Prerequisite: Fr 2102 or permission of instructor.

*Gnarra*

**Fr 4405 The French Novel (3)**

In-depth study and analysis of the narrative techniques and informing ideas of representative novels of the major French literary periods. Course conducted in French. Prerequisite: Fr 2102 or permission of instructor.

*Wendell*

**Fr 4410 The Poetry of France (3)**

Study of the form and content of the French poetic tradition, analysis of selected poems, representative of significant formal and thematic developments. Course conducted in French.

Prerequisite: Fr 2102 or permission of instructor.

*Wendell*

**Themes**

**Fr 4600 Pre-Romanticism and Romanticism (3)**

Reading, analysis and interpretation of the poetry, drama and novel of the pre-romantic and romantic period. Course conducted in French.

Prerequisite: Fr 2102 or permission of instructor.

*Gnarra*

**Fr 4605 Realism and Naturalism (3)**

A study of the movement of ideas, the evolution of literary esthetics and the material and scientific progress of the French society in the second part of the nineteenth century. Course conducted in French.

Prerequisite: Fr 2102 or permission of instructor.

*Gnarra*

**Seminars and Independent Study**

**Fr 4700 Seminar in French Literature (3)**

A carefully delimited, concentrated study of a single author, genre, theme, literary technique or problem as selected by the instructor. Course conducted in French.

Prerequisite: Nine hours in French literature.

**Fr 4710 Independent Study in French Language or Literature (3)**

The opportunity for students of advanced ability on any level of matriculation to pursue in a concentrated, but informal manner a specific area of study in foreign language or literature not available through current course offerings with a member of the department's faculty. The maximum opportunity for student initiative and individual attention. Prerequisite: Fr 3100 or permission of instructor.

**German Courses**

**Language**

**Ger 1101-1102 Elementary German I & II (6)**

Designed to enable the student to achieve a ready comprehension of spoken German, an ability to speak in clear, simple sentences and considerable ease in reading German. Credit given only upon completion of both semesters.

**Ger 2101-2102 Intermediate German I & II (6)**

Designed to expand the student's competence and fluency in speaking, understanding, reading and writing German, and to acquaint the student with various aspects of the literature and culture of Germany. Credit for graduation given only upon completion of both semesters.

Prerequisite: Ger 1102 or permission of instructor.

**Ger 3100 Advanced German Conversation and Composition I (3)**

Intensive practice in spoken and written German, stressing verbal fluency, accurate and idiomatic expression. Discussions and compositions based on selected readings in the various areas of German culture.

Prerequisite: Ger 2102 or permission of instructor.

*Salins*

**Ger 3105 Advanced German Conversation and Composition II (3)**

A continuation of Ger 3100.

Prerequisite: Ger 2102 or permission of instructor.

*Salins*

**Survey**

**Ger 3200 Masterpieces of German Literature I (3)**

Reading, interpretation and analysis of selected texts of representative authors of the German literature. Course conducted in German.

Prerequisite: Ger 2102 or permission of instructor.

*Salins*

**Ger 3205 Masterpieces of German Literature II (3)**

A continuation of Ger 3200.

Prerequisite: Ger 2102 or permission of instructor.

*Salins*

**Ger 3210 German Civilization I (3)**

An illustrated lecture course on the cultural and social history of Germany from the Reformation to Romanticism. Conducted in German.

Prerequisite: Ger 2102 or permission of instructor.

*Salins*

**Ger 3215 German Civilization II (3)**

Continuation of Ger 3210, with emphasis on the nineteenth and twentieth centuries. Conducted in German.

Prerequisite: Ger 2102 or permission of instructor.

*Salins*

**Seminars and Independent Study**

**Ger 4710 Independent Study in German Language or Literature (3)**

The opportunity for students of advanced ability on any level of matriculation to pursue in a concentrated, but informal manner a specific area of study in foreign language or literature not available through current course offerings with a member of the department's faculty. The maximum opportunity for student initiative and individual attention.

Prerequisite: Ger 3100 or 3105 or permission of instructor.

**Hebrew Courses**

**Language**

**Heb 1101-1102 Elementary Hebrew I & II (6)**

An introductory course in modern spoken and written Hebrew which is geared to students who have no previous knowledge of modern Hebrew. Initially, stress is placed on oral Hebrew and basic vocabulary building with gradual introduction of fundamental rules of grammar necessary for written communication. Both semesters must be taken in order to receive course credit.

**Heb 2101-2102 Intermediate Hebrew I & II (6)**

Designed to expand the student's competence and fluency in speaking, understanding, reading and writing Hebrew, and to acquaint the student with various aspects of the literature and culture of the Jewish people and Israel. Credit given only upon completion of both semesters.

Prerequisite: Heb 1102 or permission of instructor.

**Heb 3100 Advanced Hebrew Conversation and Composition I (3)**

Intensive practice in spoken and written Hebrew, stressing verbal fluency, accurate and idiomatic expression. Discussions and composition based on selected readings in the various areas of Hebrew literature and culture.

Prerequisite: Heb 2102 or permission of instructor.

**Heb 3105 Advanced Hebrew Conversation and Composition II (3)**

Intensive practice in spoken and written Hebrew, stressing verbal fluency, accurate idiomatic expression. Discussions and composition based on selected readings in modern Hebrew literature and poetry.

Prerequisite: Heb 2102 or permission of instructor.

**Survey**

**Heb 3200-3205 History of Hebrew Literature I & II (3,3)**

Introduction to representative masterpieces and major movements of Hebrew literature from the Biblical, Mishnaic, Talmudic, Medieval to the contemporary period.

Prerequisite: Heb 2102 or the permission of the instructor.

**Italian Courses**

**Language**

**It 1101-1102 Elementary Italian I & II (6)**

Designed to enable the student to achieve a ready comprehension of spoken Italian, an ability to speak in clear, simple sentences and considerable ease in reading Italian. Credit given only upon completion of both semesters.

**It 2101-2102 Intermediate Italian I & II (6)**

Designed to expand the student's competence and fluency in speaking, understanding, reading and writing Italian and to acquaint the student with various aspects of the literature and culture of Italy. Credit given only upon completion of both semesters. Prerequisite: It 1102 or permission of instructor.

**It 3100 Advanced Italian Composition (3)**

An intensive review of grammar and study of the problems of written composition in the Italian language.

Prerequisite: It 2102 or permission of instructor.

**It 3105 Advanced Italian Conversation (3)**

Concentration on vocabulary building, pronunciation, diction and phonetics through oral discussions.

Prerequisite: It 2102 or permission of instructor.

**Survey**

**It 3210 Italian Civilization I (3)**

An illustrated lecture course on the culture of Italy from its Roman origin through the Renaissance. Topics to be viewed are the geography, arts and letters, economic and social developments, philosophy of life and education, with emphasis on their interrelationships. Conducted in Italian.

Prerequisite: It 2102 or permission of instructor.

**It 3215 Italian Civilization II (3)**

An illustrated lecture course on the culture of Italy after the Renaissance until and including the twentieth century. Geography, arts and letters, economic and social developments, philosophy of life and education, with emphasis on their interrelationships. Course conducted in Italian.

Prerequisite: It 2102 or permission of instructor.

**Periods**

**It 4305 Humanism and the Renaissance of Italy (3)**

A study of the emergence of the ideal Renaissance man in the humanist movement and its realization in the literature of the Italian Renaissance. Course conducted in Italian.

Prerequisite: It 2102 or permission of instructor.

**It 4320 Italian Literature of the Twentieth Century (3)**

Twentieth century Italian Literature studied from D'Annunzio through post-World War I writers, tracing new concepts such as *crepuscularismo*, *decadentismo*, *futurismo*, *neorealismo* and considering each movement as a particular expression of modern society. Course conducted in Italian.

Prerequisite: It 2102 or permission of instructor.



## Russian Courses

### Rus 1101-1102 Elementary Russian I & II (3,3)

Designed to enable students to achieve a ready comprehension of spoken Russian and ability to express themselves in clear, simple sentences and considerable ease in reading simple texts. Credit given only upon completion of both semesters.

### Rus 2101-2102 Intermediate Russian I & II (3,3)

Designed to expand the students' competence and fluency in speaking, understanding, reading and writing Russian and to acquaint them with various aspects of the culture of the Soviet Union. Credit for graduation given only upon completion of both semesters. Prerequisite: Rus 1102 or permission of instructor.

## Spanish Courses

### Language

#### Sp 1101-1102 Elementary Spanish I & II (6)

Designed to enable the student to achieve a ready comprehension of spoken Spanish, an ability to speak in clear simple sentences, and considerable ease in reading Spanish. Credit given only upon completion of both semesters.

#### Sp 2101-2102 Intermediate Spanish I & II (6)

Designed to expand the student's competence and fluency in speaking, understanding, reading and writing Spanish, and to acquaint the student with Spain and the Spanish way of life. Credit given only upon completion of both semesters. Prerequisite: Sp 1102 or permission of instructor.

#### Sp 3100 Advanced Spanish Composition (3)

An intensive review of grammar and study of the problems of written composition in the Spanish language. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3103 Spanish Conversation (3)

Aspects of Hispanic life and customs through intensive oral and aural practice in discussions and reports and occasional field trips. Intended for students who wish to increase their fluency in the colloquial language. Not open to native speakers. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3105 Advanced Spanish Conversation (3)

Intensive concentration in vocabulary building, pronunciation, diction, phonetics, through oral discussions. Not open to native speakers. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3110 Commercial Spanish (3)

Designed to acquaint the student with the mercantile practices, documents and terminology needed for the understanding of the business usages of the Spanish speaking countries. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3115 Spanish Phonetics (3)

An in-depth study of Spanish phonetics, covering certain necessary aspects of historical phonetics. Prerequisites: Sp 3100 and Sp 3105 or permission of instructor.

#### Sp 3120 Special Problems in Spanish Grammar (3)

Students will study the grammatical problems which confront native Spanish speakers raised and educated in an English speaking community. Prerequisite: Open only to native speakers.

#### Sp 3125 Contrastive Applied Linguistics in Spanish (3)

Linguistic approach to the teaching of Spanish. Required of majors in the secondary collateral program. Course conducted in Spanish. Prerequisite: Permission of instructor.

#### Sp 3130 Intensive Spanish Language (6)

Complete review of Spanish grammar, phonology and practical conversation geared to the needs of the non-native teacher of Spanish. Not open to the native speaker. Prerequisites: Sp 3100 and 3105 or permission of instructor.

#### Sp 4100 Spanish Grammar: Morphology and Syntax (3)

An in-depth study of the most important morphological and structural features of Spanish grammar with special emphasis in those areas of interference with the English language that present the greatest difficulties to the student of Spanish. Prerequisite: Sp 3100 or permission of instructor.

#### Sp 4105 Translation (Spanish-English) (3)

Designed for the instruction of useful techniques in translation and interpretation from Spanish into English and English into Spanish. Prerequisite: Sp 3100 or permission of instructor.

## Survey

### Sp 3200-3205 History of Spanish Literature I & II (3,3)

An introductory study of representative masterpieces and major movements of Spanish literature from its beginnings to the contemporary period. Course conducted in Spanish. Prerequisite: Sp 3100 or permission of instructor.

#### Sp 3210 Spanish Civilization I (3)

An illustrated lecture course on the culture and civilization of Spain, from the Middle Ages to the Renaissance. Emphasis will be placed on history, geography, arts and letters, economic and social problems, philosophy and education. Conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3215 Spanish Civilization II (3)

A continuation of Spanish Civilization I. Deals with the Spanish history and culture from the Renaissance to present day Spain. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3220 Colonial Spanish-American Literature (3)

Reading, interpretation and analysis of selected authors and texts in Colonial Spanish-American Literature from its origins to 1832. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3225 Latin American Civilization I (3)

An illustrated lecture course on the culture of Latin America from the Pre-Colombian times to Independence. Emphasis will be placed on the geographical and historical background, arts and letters, economic and social problems, philosophy and education. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3230 Latin American Civilization II (3)

A continuation of Latin American Civilization I. Deals with the culture and civilization of Latin America from the time of the Independence to the present day. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 3240 Development of Puerto Rican Culture (3)

A study of Puerto Rico, its people and customs, and the development of Puerto Rican culture since the discovery to the present. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4200 Islamic Spain (3)

A study of the impact of Islam in Spain, its peculiar development in the peninsula from 711 A.D. to 1492, and its importance in the formation of the Spanish character and culture. The overall importance of Islamic Spain with respect to European Medieval culture. Prerequisite: Sp 3210 or permission of instructor.

## Periods

#### Sp 4301 Spanish Medieval Literature I (3)

A study of selected works illustrating the development of Spanish literature from its first manifestations to the 14th century. Includes both prose and poetry, introducing the student to old Spanish texts. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4302 Spanish Medieval Literature II (3)

A study of selected works illustrating the development of Spanish literature from its first manifestations in the 14th century to the end of the Middle Ages. Includes both prose and poetry, introducing the student to old Spanish texts. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4303 The XVIII Century in Spain: Literature and Culture (3)

Literature and intellectual life of Spain during the 18th century through the reading, interpretation and analysis of selected authors and texts. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4305 Literary Currents in Nineteenth Century Spain (3)

Reading, interpretation and analysis of selected authors and texts in 19th century Spain, with an in-depth study of the major literary movements during that period. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4310 The Generation of '98 (3)

A study of selected works of the Generation of '98 through the analysis of representative authors. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4315 Twentieth Century Literature in Spain (3)

Reading, interpretation and analysis of selected authors and texts in twentieth century literature in Spain. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

## Genre

#### Sp 3400 Theory of Literature (3)

Fundamental approaches to prose and poetry; literary theory and criticism. Course conducted in Spanish. Prerequisite: Sp 3100 or permission of instructor.

#### Sp 4400 Spanish Renaissance and Baroque Theatre (3)

A study of the Spanish theater during the Golden Centuries, through the analysis of representative plays and authors. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4405 Spanish Renaissance and Baroque Prose (3)

A study of the prose of Spain during the Golden Centuries through the analysis of representative works of the most important plays and authors. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4410 Spanish Renaissance and Baroque Poetry (3)

A study of the poetry of Spain during the Golden Centuries through the analysis of representative works of the most important poets. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4415 The Spanish-American Novel (3)

A study of the main novelistic currents in Spanish-America from its origins to the twentieth century. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4420 Twentieth Century Spanish-American Poetry (3)

Reading, interpretation and analysis of selected authors and texts from post-modernism to present time. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4425 Essay in Spanish-American Literature (3)

A study of the genre from its beginning to the present time through the analysis of representative authors. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

## Figures

#### Sp 4500 Cervantes (3)

In-depth study and analysis of the literary techniques of Cervantes and of his most representative works. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

## Themes

#### Sp 4600 Modernism (3)

A study of the origins and development of Modernism through the analysis of representative authors. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4605 Gauchesca Literature (3)

A study of selected works illustrating the development of the "gaucho" literature from its first manifestations to the twentieth century. Course conducted in Spanish. Prerequisite: Sp 2102 or permission of instructor.

#### Sp 4610 Romanticism (3)

Study of the origins and development of Romanticism through the analysis of representative authors in Spain and Spanish America. Course conducted in Spanish. Prerequisite: Sp 2101 or permission of instructor.

## Seminars and Independent Study

#### Sp 4700 Seminar in Spanish Literature (3)

A carefully delimited, concentrated study of a single author, genre, theme, literary technique or problem, as selected by the instructor. Course conducted in Spanish. Prerequisite: Nine hours in Spanish Literature.

#### Sp 4710 Independent Study in Spanish Language or Literature (3)

The opportunity for students of advanced ability on any level of matriculation to pursue in a concentrated, but informal manner a specific area of study in foreign language or literature not available through current course offerings with a member of the department's faculty. The maximum for student initiative and individual attention. Prerequisite: Sp 3100 or permission of instructor.

## History Courses

## Introductory

**His 1020 Roots of the Present (3)**

Historical approach to the origins of current world, national and local problems. Historical approach to analyses of and written exercises about current problems.

Prerequisites: Limited to Developmental students and/or permission of chairperson.

**His 1030 History of Western Civilization I (3)**

A survey of the historical development of modern civilization from early times. Special attention given to cultural diffusion and integration, to institutions and ideas.

**His 1040 History of Western Civilization II (3)**

A continuation of His 1030 from mid-17th century to the present.

**His 1050 Origins of Political and Social Values: The Judeo-Christian-Classical Fusion (3)**

A study of the development in ancient times of the great ethical and political traditions of the Jews, Greeks and Romans. The role of Christianity in assimilating these values and transmitting them to later ages.

*Goldberg, Letterese*

**His 1051 The Processes of Civilization: Cultural Borrowings and the Emergence of Western Man (3)**

The significance of the interaction of Byzantine, Islamic and Western European cultures in the emergence of Western man.

*Spaulding*

**His 1052 The Grand Design of the Modern State: The Formation of the European Community (3)**

A survey of the development of the individual European governments from feudal monarchies. Their attempts to transcend nationalism by inter-state cooperation, from 400 to 1453.

*Higgins, Zimmer*

**His 1053 Capitalism, Technics and Culture: European Reconnaissance and Expansion (3)**

Survey of the developments in European history which led to European expansion into Asia, Africa and the Americas. Assessment of the character of European dominance of these areas and the disengagement from European dominance.

*Higgins, Lutz, Strauss*

**His 1060 From Scientific Revolution to Democratic Revolutions**

The Intellectual Revolution of the 17th and 18th centuries with special emphasis on the resultant revolutionary upheavals from England to Russia.

*Siegel, Strauss*

**His 1061 Freedom and Organization: Nationalism, Imperialism and Industrialism (3)**

The events of the century and a half since the end of the Napoleonic Wars which illuminate the problems of Western man. The contemporary search for balance between individual freedom and submission to authority is the lens through which the course is focused.

*Goldberg, Lutz, Zimmer*

**His 1062 Modern World Civilization: Crises of the Contemporary World (3)**

A survey of world civilization in modern times stressing the geopolitical, economic, and social inter-connections among the major regions of the globe.

*Staff*

**His 1070 Women in Western Civilization (3)**

Role of women in Western civilization. Contributions of women as individuals and as a group.

*Strauss*

**His 2000-2001 Historical Explorations with Film: Scientific Discovery and the Ascent of Man (3,3)**

Using the widely acclaimed *Ascent of Man* film series created by the late Jacob Bronowski, course explores the great moments of scientific discovery against an historical perspective which spans over two million years of human history from the earliest flint tools to the theory of relativity. Special reading materials developed for the films utilized along with lectures and discussions by guest specialists from the humanities and the sciences.

*Siegel*

**His 2050 History of Western Medicine (3)**  
History of social progress of medicine, until 1900, in the Western World. Special emphasis on scientific and technological advancement, care of the sick, treatment of diseases, and the training of medical practitioners.

## Ancient

**His 2120 World Archaeology (3)**

Archaeology as a method of historical inquiry; relationship of archaeological and literary evidence; survey of major archaeological sites.

**His 3110 Greek Civilization (3)**

Hellenic history and culture from prehistoric origins to the creation of the Graeco-oriental or "Hellenistic" civilization. Political experience of the Greeks and their intellectual and artistic contribution to Western civilization. Formation of the Polis, Greek imperialism, the heroic and tragic world-view and the development of philosophic method.

Prerequisite: Six hours of history.

**His 3120 Roman Civilization (3)**

Rome's growth and decline from Etruscan times to the Barbarian invasions. Rome's success in creating a government unity throughout the Mediterranean world. The internal consequences of the acquisition of empire.

Prerequisite: Six hours of history.

**His 3121 The Ancient City (3)**

Urbanization from the beginning of history to the fall of the Roman Empire. Study of the problems faced by early city dwellers as related to the modern urban situation.

Prerequisite: Six hours of history.

**His 3150 A Greek Adventure (3)**

A three-week archeological and historical tour of Greece with emphasis on the Bronze Age and the Classical Age. Visits to important archaeological sites and museums on the mainland, Crete and the Aegean Islands. Continuity of cultural institutions from the past to the present. Travel costs vary. Check with instructor or Director of International Studies. May only be used as a free elective. Graded on pass/fail basis only.

Prerequisite: Permission of instructor.

**His 4110 The Roman Revolution: 133 B.C.-A.D. 14 (3)**

A study of the social and political upheavals of the late Roman Republic, 133 B.C.-A.D. 14, commonly referred to as the Roman Revolution; in-depth study of some personalities of the last generation of the republic; causes of the fall of republican form of government and the rise of autocracy.

Prerequisite: Six hours of history.

**His 4120 Archaeology (3)**

Introduction to the methods of archaeology and survey of recent archaeological excavation. Emphasis on classical archaeology but study of other cultures included.

Prerequisite: Six hours of history.

**His 4150 Athens in the Age of Pericles (3)**

The history of Athens during the height of its greatness, the fifth century, B.C.; the origins and development of Athenian democracy and empire; surviving monuments, both literary and artistic, as sources for Athenian history; the war with Sparta as precursor to the degeneration of 5th century values and culture; acknowledgement of the legacy of Athens.

Prerequisite: Six hours of history or permission of instructor.

## European

**His 3231 Medieval Europe: History and Civilization I (3)**

Europe from the Barbarian invasions to the renaissance of the 12th century. A survey of the history, institutions and culture of the middle centuries of Western civilization.

Prerequisite: Six hours of history.

*Zimmer*

**His 3232 Medieval Europe: History and Civilization II (3)**

A continuation of His 3231 which is not prerequisite. The height of the Middle Ages; the decline and end of medieval civilization.

Prerequisite: Six hours of history.

*Zimmer*

**His 3233 England in the Middle Ages (3)**

England from the coming of the Anglo-Saxons to the Tudor Era; Pre-Christian English society, the Danish and Norman conquests and occupations, fruition under the early Plantagenets. The development of Parliament, the Hundred Years War and the War of the Roses.

Prerequisite: Six hours of history or permission of instructor.

*Zimmer*

**His 3234 Europe in the 17th Century (3)**

An analysis of the political, economic, military, and intellectual trends in Europe from the end of the Reformation period to the end of the reign of Louis XV. Special emphasis on developments in science and philosophy and in political and social thought.

Prerequisite: Six hours of history.

*Higgins*

**His 3235 Europe in the 18th Century (3)**

An analysis of the intellectual, political, economic, and social developments in 18th century Europe before the French Revolution. Special attention given to the concept of the Enlightenment.

Prerequisite: Six hours of history.

*Zimmer*

**His 3236 The Tudor-Stuart Age: Society in Conflict (3)**

Study of 16th and 17th century England as a period of ferment and revolution. Focus will be on the political and religious upheavals, cultural achievements, economic changes and overseas expansion which characterized the Age.

Prerequisite: Six hours of history.

*Strauss*

**His 3237 The Emergence of Modern England: 1689-1815 (3)**

England's progress during the 17th and 18th centuries toward big power status. Cultural, political and social developments discussed with emphasis on England's emergence as a modern industrial power. Literary as well as historical sources used.

Prerequisite: Six hours of history.

*Strauss*

**His 3238 The Age of Reform: England Since 1815 (3)**

Describes the political and social reform movements in England: the emergence of liberalism and the fight for an extended suffrage; the conflicts between laissez-faire and state intervention; isolationism and interventionism. Literary as well as historical sources used.

Prerequisite: Six hours of history.

*Strauss*

**His 3239 France and the Revolutionary Tradition Since Napoleon (3)**

History of modern France, highlighting the impact of modern ideologies of social change and revolution upon French politics and culture since 1815. Emphasis placed on the uniquely French responses to the great social transformations which have fashioned contemporary world society.

Prerequisite: Six hours of history.

*Siegel*

**His 3240 Renaissance and Reformation (3)**

An analysis of the development of the Renaissance and Reformation in their relation to the formulation of a base for the building of contemporary secular society.

Prerequisite: Six hours of history.

*Zimmer*

**His 3241 The Wealth of Nations: Roots of the 20th Century World Economy (3)**

The development of modern capitalism and "economic man" up to the twentieth century. Analysis of the history of trade, empire, banking and material civilization which form the essence of our contemporary capitalistic world system.

Prerequisites: Six hours in history or junior standing or permission of instructor.

*Siegel*

**His 3244 The Nazi Era: Germany Before the Holocaust (3)**

The period in which the political and social history of totalitarian Germany under Hitler which led to world war and attempts at genocide. Does not fulfill major requirements.

Prerequisites: Sophomore standing or permission of instructor.

*Goldberg*

**His 3252 European Intellectual History in the 19th and 20th Centuries (3)**

An examination of the main currents of European thought in the 19th and 20th centuries. Emphasis on source readings and discussion in philosophy, literature, science, political, literary and artistic theory. Some attempt is made to estimate the degree of penetration into the masses of the theories of the intellectuals.

Prerequisite: Six hours of history.

*Lutz*

**His 3273 Ireland: Mystique and History (3)**

Struggle of a national and religious group to gain independence will be related to the role played by an Irish leavening in the web of Western civilization. The fratricidal conflict in Northern Ireland viewed as a harsh relevancy.

Prerequisite: Six hours of history.

*Higgins*

**His 3274 Ireland: Mystique and History: Union to Disunion, 1801-1977 (3)**

The struggle of a national and religious group to gain independence related to the role played by the Irish in Western civilization. In our era of confrontation, the fratricidal conflict in Northern Ireland viewed as a harsh relevancy.

Prerequisite: Six hours in history.

*Higgins*

**His 3280 Spain: The Rise of the First World, Power (3)**

The historical development of the Iberian peninsula from the earliest times to the moment of emergence of Spain as a unified state.

Prerequisite: Six hours of history or permission of instructor.

*Socarras*

**His 3281 Imperial Spain (3)**

The Spanish Empire and its development from 1516 to 1700; the social, political, economic and religious factors that contributed to its development and eventually to its downfall.

Prerequisite: Six hours of history or permission of instructor.

*Socarras*

**His 4220 The Revolutionary Era, 1789-1870 (3)**

A detailed examination of the French Revolution of 1789 is followed by a study of its legacy. The role of nationalism, the development of socialism in 19th century Europe, the unification of Italy and Germany and the emergences of *realpolitik*.

Prerequisite: Six hours of history.

*Higgins*

**His 4233 Tsarist Russia: From the  
Moscovite Period to the Great  
Emancipation (3)**

Imperial Russia under the Rurik and Romanov Tsars studied as an important aspect of the growth of European Absolutism and the social system of the Old Regime. The unique problems of the Moscovite state traced to the eve of the Russian Revolutionary Movement. Culture, personalities and institutions critically evaluated by readings in the classic and contemporary literature.

Prerequisite: Six hours of history.

*Siegel*

**His 4234 Revolutionary and  
Soviet Russia (3)**

Modernization and revolution in modern Russia from the first liberal reforms of Alexander II to the contemporary developments in the U.S.S.R. Russia's participation in the critical moments of the last century; the industrial revolutions, world wars, and the continuing ideological struggle between varying forms of liberalism and communism. The problems of continuity and change in modern Russia since 1917 highlighted by readings and discussions.

Prerequisite: Six hours of history.

*Siegel*

**His 4235 Industrial Revolution: Topics in  
the History of Technological  
Society (3)**

Selected topics in the social history of machines, their inventors, and industrial revolutions which have transformed world societies with increasing power since the end of the Middle Ages. Extensive investigations of conditions for technological innovation such as war.

Prerequisites: His 2000, 2001 or junior standing or permission of instructor.

*Siegel*

**His 4237 Europe Since 1870 (3)**

Changes in European societies since the unification of Italy and Germany, with particular attention to nationalism and imperialism, democracy and dictatorship. Post-war trends toward European integration assessed in terms of Europe's position in the late 20th century world.

Prerequisite: Six hours of history.

*Letterese*

**His 4238 History of Germany, 1805 to  
Present (3)**

Internal contradictions which have taken the German people through international aggression, dictatorship and then to affluence in a challenging democratic environment.

Prerequisite: Six hours of history or permission of instructor.

*Goldberg*

**His 4239 The Hapsburg Empire and the  
Nationality Problem, 1804-1918 (3)**

A study of the Hapsburg Empire from its formal establishment in 1804 to its dissolution in 1918; economic, social, and political developments related to the problems of nationality and the multi-national state; interplay between Hapsburg policies and the ambitions of Central Europe's Germans, Italians, Hungarians, Czechs, Serbs, etc., which weakened the Empire, led it into World War I, and contributed to its disintegration along national lines.

Prerequisite: Six hours of history.

*Lutz*

**His 4240 History of Ethnic Minorities in  
Europe (3)**

A comparative-historical approach to Europe's ethnic minorities. Distinctive characteristics of ethnic minorities studied. Close attention given to relations between Europe's smaller ethnic groups and its larger, more powerful ethnic groups. Rapid review of ethnic origins and pre-modern period, with chief attention given to developments in the 19th and 20th centuries.

Prerequisite: Six hours of history.

*Lutz*

**His 4241 German Culture Between  
the Wars: A View from  
"The Cabaret" (3)**

A reflection of the ideas and activities of Germany's thinkers, artists and writers who were part of an extremely varied cultural life centered in Berlin between the World Wars.

Prerequisite: Six hours of history or permission of instructor.

*Goldberg*

**His 4242 Twentieth Century France:  
Imperial Glory to Identity Crisis (3)**

Twentieth century France traced from the aftermath of the Dreyfus Affair to the present. The struggles of a declining European "great power" to preserve its historical role, cultural "mission," and national identity amidst the catastrophic transformations of the twentieth century, the decline of imperial Europe and the restructuring of the world into ideological spheres controlled by superpowers.

Prerequisite: Six hours of history.

*Siegel*

**His 4250 The Papacy and Its History**

The political development of the Papacy and its role and influence in shaping Western history and civilization.

Prerequisite: Junior level or permission of instructor.

*Socarras*

**American**

**His 2303 United States History to 1877 (3)**

A comprehensive study of the American people, including the colonial period, the struggle for independence and the national period through Reconstruction.

**His 2304 United States History—  
1877 to Present (3)**

A study of the development of American industrialism, westward expansion, the reform impulse and foreign affairs to the present day.

**His 2381 History of Latin America  
to 1825 (3)**

An historical survey of the peoples and cultures of Latin America from the pre-Columbian periods to the wars of independence.

Prerequisite: Six hours of history.

*Socarras*

**His 2382 History of Latin America:  
1825 to Present (3)**

An historical survey of the peoples and cultures of Latin America beginning with the wars of independence and concluding with the role of Latin America in the present day.

Prerequisite: Six hours in history.

*Socarras*

**His 3300 Public History I (3)**

An introduction to the new studies in applied history which focuses upon techniques and materials to prepare students for alternative careers for historians in government, corporate, and private organizations.

Prerequisite: Sophomore standing.

*Zimmer*

**His 3301 Public History II (3)**

Studies in the management and technology of cultural resource preservation, with emphasis on historic preservation and archival techniques.

Prerequisite: His 3300.

*Zimmer*

**His 3305 The History of the Black  
American—to 1900 (3)**

The role of Black persons in the United States from the colonial period to 1900, stressing African roots, slavery, Reconstruction and the era of Jim Crow.

Prerequisite: Six hours of history.

*Rice*

**His 3306 20th Century Black History (3)**

The development of the Black community during the 20th century, from the Age of Accommodation to the rise of Black militancy in the 1960s.

Prerequisite: Six hours of history.

*Rice*

**His 3323 Progress of American  
Medicine (3)**

A survey history of the development of the medical profession in the United States. Medical education and practice, scientific research, public health and their institutions.

*Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

*Goldberg*

**His 3324 The American West (3)**

History of the advancing frontier in the United States from colonial times through the nineteenth century with an analysis of its effect upon the institutional and intellectual development of the American people. Emphasis on the historiography of the American frontier.

Prerequisite: Six hours of history.

*Fridlington*

**His 3326 History of New Jersey (3)**

Social and political development of New Jersey within context of American history.

Prerequisite: Six hours of history.

*Fridlington*

**His 3330 The Labor Movements in  
America: 1864 to Present**

Analysis of the reaction of the American working class to the rise of the industrial state. Examination of the trade union movement and the millenarian movements.

Prerequisite: Six hours of history.

*Raichle*

**His 3331 The History of Sports in the  
United States (3)**

The history of the United States during the two hundred years of this nation's existence; the birth and phenomenal growth of sports in the United States and the relationship of sports to American society.

*Furer*

**His 3340 20th Century America (3)**

An examination of the major economic, social, political and diplomatic trends in the 20th century, with emphasis on the quest for social justice at home and abroad.

Prerequisite: Six hours of history.

*Raichle, Rice*

**His 3341 The End of American  
Innocence (3)**

The 1920's: emergence of flappers, flivvers, prosperity, prohibition, conservatism, jazz, the Ku Klux Klan, Republican dominance and a literary renaissance.

*Raichle*

**His 3353 The History of American  
Childhood since 1890 (3)**

The study of recent American child rearing in the context of constantly accelerating dynamics in American society. The maturing of the social sciences, the dissipation of absolute values and the impact of "crisis" situations emphasized.

Prerequisite: Six hours of history.

*Mayer*

**His 3354 The Private Life of the American  
People (3)**

The past of the American family, 1607 to the present: child-rearing, courtship, dating and mating, marriage and sexual behavior.

Prerequisite: Junior standing.

*Raichle*

**His 3360 History of Business in America (3)**

Survey of rise of American business institutions and practices from colonial times to present. Emphasis on influence of businessmen in shaping of American values and role of American businessmen in contemporary society. *Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

*Fridlington*

**His 3363 America in the 1960's: The  
Turbulent Decade (3)**

Study of the social, political, economic, philosophical and religious tensions in America in the 1960's including involvement in Vietnam and role of the media. Special attention to the dynamic influence of American youth. *Credit will not be given for this course and mid-year study program course, His 7014.*

Prerequisite: Junior standing or permission of instructor.

*Raichle*

**His 3370 Canadian History:  
1534 to Present (3)**

Events and institutional developments involved in the emergence of the Dominion of Canada as a contributor to both American history and world history.

Prerequisite: His 2303 or 2304.

*Higgins*

**His 3381 Cuba and the Modern World (3)**

History of Cuba from discovery to present, with close examination of the formation of the Cuban nationality and factors that have shaped the island's present situation.

Prerequisite: Junior standing or permission of instructor.

*Socarras*

**His 4319 The British Colonies and the  
American Revolution (3)**

An examination of the basis of American society covering the colonial period of American history and the American Revolution. Social, economic and political origins and events treated in relation to modern American practices and institutions.

Prerequisite: Six hours of history.

**His 4321 American Liberty and Law (3)**

After a brief introduction to the Supreme Court and Constitution, a detailed analysis of the growth and development of the Bill of Rights. In effect, the course attempts to probe how free speech is; what religious liberty means; what the right of privacy is; and what rights the accused person has.

Prerequisites: His 2303-2304.

*Raichle*

**His 4361 The American City (3)**

The growth of urban America, beginning with the colonial seaports through the 20th century, including the spread of industrialization, transportation and communication. The impact of the city on American culture. Present day problems—race relations, the population explosion, the rise of suburbia, and the development of megalopolis.

Prerequisite: Six hours of history.

*Furer*

**His 4362 Pre-Columbia Civilizations:  
The Andean Region (3)**

Examination of the pre-Hispanic civilizations that developed in the Andean region of South America with special attention to their influence in the present day culture of the area.

Prerequisite: Six hours of history or permission of instructor.

*Socarras*

**His 4363 Pre-Columbian Civilizations:  
Mesoamerica (3)**

Examination of the pre-Hispanic civilizations that developed in Mexico and Central America with special attention to their influence in the present day culture of the area.

Prerequisite: Six hours of history or permission of the instructor.

*Socarras*

**His 4365 American Foreign Affairs I:  
1775-1899 (3)**

A basic survey of American diplomatic history to 1899 dealing with the formation and implementation of American foreign policy with a view to its effect on the world situation and domestic developments.

Prerequisites: His 2303-2304.

*Mayer*

**His 4366 American Foreign Affairs II: 1899 to Present (3)**

The emergence of the United States as a world power examined with particular attention to imperialism, World Wars I and II, and the Cold War.

Prerequisites: His 2303-2304.

Mayer

**His 4367 The History of American Immigration (3)**

The society of the United States as a mosaic made up of various immigrant groups. Each successive wave of newcomers treated separately: their origins and character; their settlement and reception in the United States; their reaction to the new world; their impact on their adopted country; the effect of the exodus on their homelands; and United States immigration policies.

Prerequisite: Six hours of history.

Furer

**His 4368 The Civil War and Reconstruction (3)**

Inquiry into social classes in the Old South; slavery as an institution; the Civil War on the military, home, and diplomatic fronts; Reconstruction; Grantism. Emphasis on the study of various schools of historical thought on the character of slavery, on the causes of the Civil War, and on the nature of Reconstruction.

Prerequisite: Six hours of history.

Rice

**His 4384 The Emergence of Brazil (3)**

The historical and cultural development of Brazil from its discovery to the present.

Prerequisites: Six hours of history.

Socarras

**Asian**

**His 2471 History of Far Eastern Civilization to 1600 (3)**

Survey of the major historical developments in China, Korea, Japan and Vietnam, from earliest times to the seventeenth century.

Didsbury, Leonard

**His 2472 Modernization of China and Japan, 1600 to Present (3)**

The major developments in the recent history of China and Japan with particular reference to changes in institutions and values resulting from Western imperialism in East Asia in the nineteenth and twentieth centuries.

Didsbury, Leonard

**His 3400 Diplomatic History of the Far East in the 19th and 20th Centuries (3)**

A survey of the diplomatic relations and power politics of the Western powers in the Far East; the rise of the Japanese Empire as a world power, and its repercussions on China in particular.

Prerequisite: Six hours of history.

Leonard

**His 3410 China in the 20th Century (3)**

A study of Nationalist and Communist China with special emphasis upon the rise of nationalism and the problems of industrialization.

Prerequisite: Six hours of history.

Leonard

**His 3415 Vietnam's Struggle for Autonomy (3)**

Study of the origins of Vietnamese political life, the nature of early Vietnamese relations with Imperial China, the impact of French domination, the nature of Vietnamese nationalism in the 20th century through the second Indo-China War. *Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

Leonard

**His 3416 The Asian Woman (3)**

The history of women's involvement in politics, economics and society in Asia. Special attention to women in China and India in the traditional and modern periods. The evolution of the female's position during the process of modernization. *Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

Leonard

**His 4410 The Rise of Modern Japan, 1600-1970 (3)**

Focus on Japan's transition to modernity and its rise to world power status in the twentieth century.

Prerequisite: Six hours of history.

Leonard

**African**

**His 2500 Survey of African Prehistory and History (3)**

A survey of Africa's prehistory and history from earliest times to the 20th century in the light of archaeological and anthropological findings as well as written documents. Attention focused on the development of African contacts with Asia, Europe, and the Americas, and on Africa's internal history.

Spaulding

**His 2510 Political History of Africa in the 20th Century (3)**

A study of the development of African nationalism in the 20th century and its emergence from European colonial domination.

Spaulding

**Middle Eastern**

**His 3600 Historical Survey of Islamic Civilization in the Near East (3)**

From the emergence of Islam until the dissolution of the Caliphate in the 20th century.

Prerequisite: Six hours of history.

Spaulding

**His 3610 The Ottoman Empire (3)**

A study of the rise and decline of Ottoman power, from vibrant conqueror to "the sick man of Europe."

Prerequisite: Six hours of history.

Spaulding

**His 3620 Modern Israel (3)**

Development of Zionism from the era of the French Revolution through the establishment and development of the State of Israel.

Prerequisite: Sophomore standing or permission of instructor.

Zimmer

**Comparative**

**His 3843 Sex in History (3)**

Sexual codes and customs and how they affected relationships between men and women throughout the ages; consideration of sexual attitudes in the context of social, economics and political change. *Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

Strauss

**His 3850 Explorations in Psychohistory (3)**

Assessment of various writings in the field of psychohistory, a discipline which combines the art of psychoanalytic and historical interpretations. *Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

Mayer

**His 3851 Alienated Youth, Past and Present (3)**

An historical approach to the youth movements of alienation, from the Goliards of the 11th and 12th centuries to the New Left of the 20th century.

Prerequisite: Six hours of history.

Lutz

**His 3860 Jewish History (3)**

Beginning with the period of the Patriarchs, an overall picture of the most important eras in the history of the Jewish people. *Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

Zimmer

**His 3861 Modern Jewish History (3)**

The survival of the Jewish People and culture in the Enlightenment and the era of nationalism; the problems and crises posed by pogroms and the Dreyfus Affair with the attendant birth of political Zionism; the emergence of the State of Israel in the aftermath of the Holocaust. *Does not fulfill major requirements.*

Prerequisite: Sophomore standing or permission of instructor.

Zimmer

**His 4840 Women in History (3)**

The role of women in different cultures throughout the ages. The lives of outstanding women and movements seeking "liberation" of women.

Prerequisite: Six hours of history.

Leonard, Strauss

**His 4841 Women in the Modern Age (3)**

The advances women have made through protest movements and reform activities; their changing conceptions of themselves and goals of the future through "Liberation."

Prerequisite: Six hours of history.

Strauss

**His 4870 Planning for Tomorrow Today: Alternative Futures (3)**

Introduction to a number of the more significant current "alternative futures" studies produced by scientific and academic research groups around the world. In addition to this examination of key futurist research, the methods employed by futurists to arrive at their forecasts are studied.

Prerequisites: Junior standing or permission of instructor.

Didsbury

**His 4875 The Emergence of Law in Society (3)**

Development of the legal norm from the primitive stages of society to the organization of the first legal systems before modern times.

Prerequisites: Six hours of history and/or political science or permission of instructor.

Socarras

**His 4882 The Modern Scientific and Technological Impact on Culture (3)**

A comparative study of the impact of modern science and technology upon Western Christian, Far Eastern, Islamic and Hindu Civilizations, showing their uniform, varied and unsettling effects upon traditional cultural patterns and ideals.

Prerequisite: Six hours of history or permission of instructor.

Didsbury

**Seminars and Independent Study**

**His 4990 Senior Seminar in History (3)**

Open only to senior history majors. Geared to the highest competency. Staffed by department members who will give insights into the problems of historical methodology and research.

Prerequisite: Twelve hours of history.

**His 4991 Field Work and Seminar in Urban Studies (3)**

Provides direct participation in the urban process through supervised placement two full days per week in a public or private agency in a city during one semester of the junior or senior year. Seminar held each week to discuss the field experience and general urban problems. Internship planned individually to fit student program.

Prerequisite: Fifteen hours of the Collateral Program in Urban Studies.

Furer

**His 4995 Independent Study in History (3)**

Opportunity for history majors to develop independent research projects in particular fields under the guidance of members of the department. Meeting hours arranged by student and advisor and consist of at least thirty fifty-minute periods. The student is responsible for the plan of work, its development, and a final presentation in conformity with standards set by the advisor.

Prerequisite: Six hours of history.

**Interdisciplinary Courses**

The following are found in the Interdisciplinary courses section. (See Index.)

**ID 3100 Greek and Roman Mythology (3)**

**ID 3900 Interdisciplinary Seminar on Futurism (3)**

Didsbury

**ID 4001 Myth and Symbolism in Pre-Hispanic Mexico (3)**

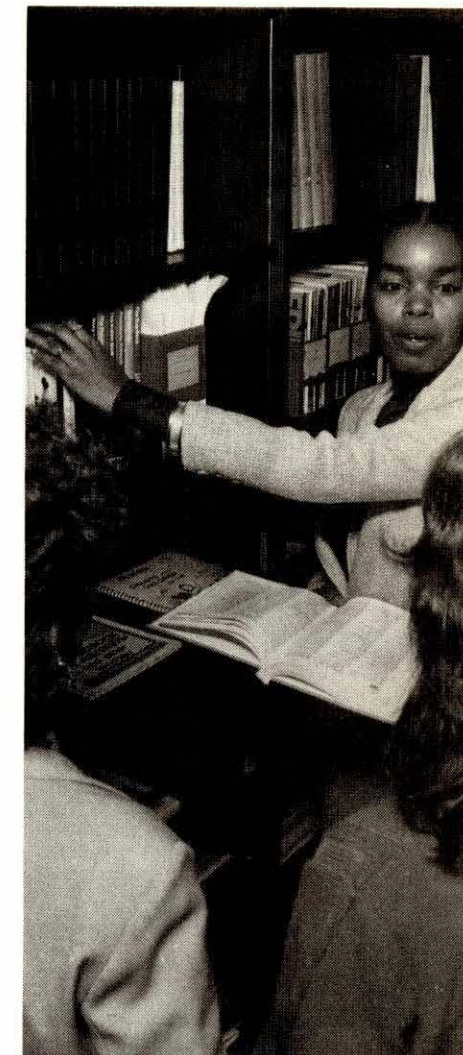
Socarras

**ID 4002 Egyptian Mythology (3)**

Socarras

**ID 4100 China During the Age of Confucius (3)**

Leonard



## Music Courses

## Survey and Introduction

**Mus 1000 Music Survey (3)**

Understanding of music through study of music elements, forms, terms, styles, composers, and representative compositions in class, outside listening and music performance attendance.

**Mus 1050 Music Fundamentals (3)**

Introduction to rudiments of music and notation. Developing understanding of the music language and facility in music reading and aural perception, through class and individual vocal and instrumental practice and written work. This course is designed as preparation for Mus 2305, 2310 music education courses required of early childhood and elementary education majors.

## Theory and Musicianship

**Mus 1101-1102 Music Theory I & II (3,3)**

Review of music fundamentals, notations and grammar, written and keyboard harmony, ear training, sight singing and dictation. Prerequisite: Music major curriculum or department consent.

**\*Mus 1201 Basic Sight-singing and Ear-Training (3)**

Review of music rudiments, aural recognition of melodic and harmonic components and intensive sight-singing activities, using both fixed and movable "Do."

**\*Mus 2103-2104 Music Theory III & IV (3,3)**

Continuation of Mus 1101-1102, including chromatic and post-functional harmony, possibly counterpoint and the beginning of original creative work. Prerequisite: Mus 1102 or equivalent.

**Mus 3101 Counterpoint (2)**

Species and free 2- and 3-part counterpoint. Prerequisite: Mus 2104 or equivalent. *Montgomery*

**Mus 3102 Fugue (2)**

Invertible counterpoint and writing of complete 3- and 4-voice fugues. Prerequisite: Mus 3101 or equivalent. *Montgomery*

**Mus 3104 Advanced Sight-singing and Ear-training (3)**

Course designed to further develop sight-singing and ear training skills. May be repeated once for credit. Prerequisite: Mus 1201 or consent of department chairperson.

**Mus 3111 Form and Analysis (3)**

Tonal and structural analysis and study of formal design in music of different styles. Prerequisite: Mus 2104 or equivalent.

**Mus 3112 Analytical Techniques (3)**

Analysis and study of large, complex contemporary works, possibly individual creative work. Prerequisite: Mus 3111 or equivalent.

**\*Mus 3121 Conducting (4)**

Course is designed to provide the student with the basic techniques of conducting, with the emphasis on their practical application through the medium of choral music. Concurrent with enrollment in the conducting course, membership in the concert chorus is required. Prerequisite: Mus 2103 or permission of instructor.

**Mus 3131 Orchestration I (3)**

Instrumental ranges and playing characteristics, principles of scoring, reductions from full scores, and scoring for small instrumental ensembles. Prerequisite: Mus 2104 or equivalent.

**Mus 3133 Instrumental Arranging (2)**

Scoring for various instrumental combinations other than orchestra, including concert, stage, dance, jazz, band, chamber groups or various combos. Prerequisite: Mus 3131 or equivalent. *Zimmer*

**Mus 3134 Choral Arranging (2)**

Arranging for various vocal combinations with or without accompaniment, using works by others or original compositions. Prerequisite: Mus 3131 or equivalent. *Cullen*

**Mus 3135 Introduction to Electronic Music (3)**

An introduction to electronic music, including its history, compositional techniques employed, the electronic synthesis of sound, music synthesizers, and the computer. Prerequisite: Music Theory II or permission of instructor.

**Mus 3140 Composition (2)**

Technique and problems of composition for various performing media. May be repeated for credit. Prerequisites: Mus 2140 and submission of original compositions.

## History and Literature

**Mus 2201 Music History I (3)**

Development of music in primitive, ancient and exotic cultures, and in Western civilization from the beginning of Christianity through Classicism. Prerequisite: Mus 1000, 1202 or department consent.

**Mus 2202 Music History II (3)**

Historic development of music from the culmination of the Classic Era to the present. Prerequisite: Mus 1000, 2201 or department consent.

**Mus 2230 African Music Tradition (2)**

Music of Black Africa and its influence in shaping the music heritage of Black Americans: plantation, gospel, spirituals, blues, jazz, rock and soul.

**Mus 3201 History of Musical Instruments (3)**

An examination of musical instruments found in both primitive, tribal and modern societies. Emphasis upon the European tradition, tracing its development from the Middle Ages to the modern era.

Prerequisite: Mus 1000, 2201 or consent of instructor. *Grace*

**Mus 3210 Baroque Music (3)**

Study of the music style and characteristic forms with examples from a cross-section of major composers and works of the period 1600-1750.

Prerequisite: Music major curriculum, Mus 1000 or department consent.

**Mus 3220 Music in the Classical Era (3)**

Study of the music style and characteristic forms with examples from a cross-section of major composers and works during the rococo and classical periods in music: 1750-1820's.

Prerequisite: Music major curriculum, Mus 1000 or department consent.

**Mus 3230 Music in the Romantic Era (3)**

Study of the music style and characteristic forms with examples from a cross-section of major composers and works of the 19th century.

Prerequisite: Music major curriculum, Mus 1000 or department consent.

**Mus 3240 Contemporary Music (3)**

Study of the main trends in the 20th century music with examples from representative contemporary composers and works.

Prerequisite: Music major curriculum, Mus 1000 or department consent.

**Mus 3245 Sacred Music (3)**

A chronological study of twenty centuries of the sacred music of Western civilization, the significance of this music as a reflection of contemporaneous societies and its uses in those societies.

Prerequisite: Mus 1000 or consent of department chairperson. *Cullen*

**Mus 3250 Jazz in American Culture: From Dixieland to Rock (3)**

The development and influence of American Jazz from its beginnings in New Orleans to the present highlighting the musical styles of innovative vocalists and instrumentalists and their influence upon American culture.

*Yurochko*

**Mus 3255 Music of the American Theatre (3)**

The evolution of theater music in the United States from the nineteenth century minstrel shows to the musicals of the present.

*Feldman*

**Mus 4200 Solo Voice Literature (3)**

Study of representative concert works for solo voice of various periods, styles and national origins.

Prerequisite: Music major curriculum, Mus 1000 or department consent.

**Mus 4210 Choral Literature (3)**

Study of representative choral works, unaccompanied and accompanied, from the Middle Ages through the present, and characteristic forms used in the choral medium. Prerequisite: Music major curriculum, Mus 1000 or department consent. *Cullen*

**Mus 4211 Songs of Sorrow and Solace (3)**

A detailed study of monumental and miniature masterpieces of musical settings of poetry, prose and prayer expressing various reactions to the universal experiences of death, grief and consolation.

Prerequisite: Mus 1000 or consent of department chairperson. *Cullen*

**Mus 4220 Opera Literature (3)**

Development of opera since baroque through the present with detailed study of representative works and composers within the genre and references to other music stage works in various periods, styles and civilizations.

Prerequisite: Music major curriculum, Mus 1000 or department consent.

**Mus 4230 Keyboard Literature (3)**

Study of keyboard literature with emphasis on major keyboard works for piano and its predecessors from early organ music through the present.

Prerequisite: Music major curriculum, Mus 1000 or department consent. *Feldman*

**Mus 4240 Chamber Music Literature (3)**

The evolution of small instrumental ensembles from Middle Ages through the present, with emphasis on the development of chamber music starting with the baroque, and study of representative works in the medium. Prerequisite: Music major curriculum, Mus 1000 or department consent. *Hoyle*

**Mus 4250 Symphonic Literature (3)**

Development of the orchestral literature since the Baroque through the present, with the study of characteristic forms and representative works for orchestra.

Prerequisite: Music major curriculum, Mus 1000 or department consent.

**Mus 4260 Indian Classical Music (Sitar) (3)**

The development of Indian classical music from antiquity to the present day, with the study of characteristic forms and representative works for the Sitar.

Prerequisite: Mus 1000 or department consent.

**Mus 4265 J.S. Bach (3)**

An examination of the life, times, and music of Bach especially in relationship to the music of the entire Baroque era.

Prerequisite: Mus 1000 or 2202 or consent of department chairperson. *Grace*

**Mus 4268 Ludwig Van Beethoven (3)**

A detailed study of the life and works of Beethoven showing his stylistic development from the early piano sonatas through the last string quartets.

Prerequisite: Mus 1000 or 2202 or consent of department chairperson. *Golub*

**Mus 4269 Richard Wagner (3)**

A detailed study of the life and works of Richard Wagner showing his stylistic development from the early works through the last operas. Prerequisite: Mus 1000 or 2202 or consent of department chairperson. *Golub*

**Mus 4270 Gustave Mahler (3)**

A detailed study of the life and works of Gustave Mahler showing his stylistic development from the early songs through the last symphonies.

Prerequisite: Mus 1000 or 2202 or consent of department chairperson. *Golub*

**Mus 4271 Debussy and Ravel (3)**

Detailed study of selected representative works of Debussy and Ravel. Emphasis on selected readings and major masterworks of both composers.

Prerequisite: Mus 1000 or consent of department chairperson. *Hoyle*

**Mus 4272 Igor Stravinsky (3)**

A detailed study of the life and works of Igor Stravinsky, showing his development from his early post-romantic nationalistic style through his last serial compositions.

Prerequisite: Mus 1000 or consent of department chairperson. *Golub*

**Mus 4274 Scriabin, Delius and Ives (3)**

Detailed study of three turn-of-the-century composers; their very dissimilar careers and compositions; the remarkable correspondence of their creative inspirations.

Prerequisite: Mus 1000, 2202 or consent of department chairperson. *Hoyle*

**Mus 4277 Giuseppe Verdi (3)**

A detailed study of the life and operas of Giuseppe Verdi showing his stylistic development from the early works through Falstaff. Prerequisite: Mus 1000, 2202 or consent of department chairperson. *Golub*

## Education

**Mus 2305 Early Childhood Music Education (3)**

Music activities and materials for nursery school through grade 3. Direct participation in singing and rhythmic activities, playing and reading music with simple melody instruments, use of the autoharp and rhythm instruments, use and evaluation of books, curriculum materials and recordings. Emphasis on activities and materials for gifted and talented students, ethnically diverse groups, mainstreaming and special education classes. Prerequisite: Mus 1050 or permission of instructor. *Engelhard, Price*

**Mus 2310 Elementary School Music Education (3)**

Music activities and materials for children in the elementary grades. Direct participation in singing and rhythmic activities, playing and reading music with simple melody instruments, use of the autoharp, rhythm instruments and recordings, use and evaluation of books and materials for music education on the elementary and grade school level. Prerequisite: Mus 1050 or permission of the instructor. *Engelhard, Price*

**Mus 2900 Foundations and Principles of Music Education (3)**

An observational and analytical study of music education programs, K-12 in multi-cultural urban and suburban educational settings. Approximately one-third of the course involves a supervised field-based experience. Required of all students in music education before admission to the program. Prerequisite: Sophomore music education level.

**Mus 3310 Elementary School Music (3)**

Music activities and materials, classroom music procedure and beginning choral techniques for the elementary school. Guided class observations and a supervised 40 hour field experience to be assigned by the Teaching Performance Center are required. Emphasis on activities and materials for gifted and talented students, ethnically diverse groups, mainstreaming and special education classes.

Prerequisite: Music education major curriculum. *Engelhard*



**Mus 3320 Secondary School Music (3)**  
Course development, organization problems, music in world cultures, instrumental and choral groups, voice classification, show production and music clubs. Study and evaluation of texts and materials. Emphasis on activities and materials for gifted and talented students, ethnically diverse groups, mainstreaming and special education classes. Guided class observations and a supervised 40 hour field experience to be assigned by the Teaching Performance Center are required. Prerequisite: Music education major curriculum.

*Engelhard*

**Mus 3330 Choral Methods (2)**  
Administration of choral program: organization, procedures, rehearsal techniques regarding voice production, diction, repertory, program planning, performance problems of style and interpretation, special needs of gifted and handicapped persons. Prerequisites: Conducting I, choral singing experience or permission of chairperson or instructor.

**Mus 3341 Instrumental Repair (3)**  
Study of the proper techniques used in the repair and maintenance of string, brass, percussion and woodwind instruments.

**Mus 4300 Student Teaching (10)**  
Students will teach for a fifteen week period in both elementary and secondary school under the direction of a college supervisor and cooperating teacher. The experience will include work with normal students, gifted and talented students, special education classes, mainstreaming, and ethnically diverse groups. Prerequisites: Music education core requirements.

#### Therapy

**Mus 3400 Therapeutic Use of Music (3)**  
A study of music as a therapeutic means of dealing with exceptional children and adults. Prerequisite: SpE 2052 or permission of instructor.

*Zimmer, L. J.*

**Mus 3410 Music in Physical Therapy (3)**  
Use of music in various rhythmic movements, dealing with all parts of the body. Theoretical musical notation. Use of instruments for the handicapped. Prerequisite: Mus 3400 or permission of instructor.

*Zimmer, L. J.*

**Mus 4400 Music for the Child in Special Education (3)**  
Use of music in learning other subjects, i.e., mathematics, English and speech and development of conceptual learning. Prerequisite: Mus 3410 or permission of instructor.

*Zimmer, L. J.*

#### Class Lessons

*Class lessons in basic performance technique, once a week (75 minutes). Required for music education majors, but open to others by department consent if space is available.*

- Mus 1501-1502 Voice I-II (½ ½)**
- Mus 1511-1514 Piano I-IV (½ ½ ½ ½)**
- Mus 1551-1552 Strings I and II (½ ½)**
- Mus 1560 Woodwinds (½)**
- Mus 1570 Brass (½)**
- Mus 1590 Percussion (½)**

*For non-music majors only:*

**Mus 1517-1518 Elementary Piano I & II (3,3)**  
A beginner's course for non-majors to develop general keyboard facility through sight reading, harmonizing well-known melodies, and the performance of easy classics. Mus 1517 is prerequisite to 1518. *Music majors may not take this course for credit.*

#### Private Studio Lessons

*One private 50 minute lesson, per week, each semester, required of and reserved for music majors. May be repeated for credit.*

- Mus 3600 Voice (2)**
- Mus 3610 Piano (2)**
- Mus 3620 Organ (2)**
- Mus 3630 Harp (2)**
- Mus 3640 Guitar (2)**
- Mus 3650 Violin (2)**
- Mus 3651 Viola (2)**
- Mus 3652 Cello (2)**
- Mus 3653 Double Bass (2)**
- Mus 3660 Flute (2)**
- Mus 3661 Oboe (2)**
- Mus 3662 Clarinet (2)**
- Mus 3663 Saxophone (2)**
- Mus 3664 Bassoon (2)**
- Mus 3670 Trumpet or Cornet (2)**
- Mus 3671 French Horn (2)**
- Mus 3672 Trombone or Euphonium Baritone Horn (2)**
- Mus 3673 Tuba (2)**
- Mus 3690 Percussion (2)**

#### Performance and Repertory

**Mus 2701-2702 Score Reading I & II (1,1)**  
Reading of all clefs and transposing instruments, written and sight transposition at keyboard, condensed score reduction, playing from the open scores, progressing from simpler and shorter to full orchestral passages. Prerequisite: Demonstrated keyboard proficiency.

**Mus 2710 Accompanying (½)**  
Study and practice of piano accompanying, including sight-reading and transposition, for vocal and instrumental works. Two semesters required for piano majors. Prerequisite: Demonstrated piano proficiency.

#### Mus 2879 Jazz Ensembles (1)

The study, rehearsal, playing and performance of representative musical compositions in the various jazz and jazz/rock styles. Prerequisite: Permission of instructor.

#### Mus 3700 Voice Repertory (½)

Study and performance of representative cross-section in the solo voice repertory. Corequisite: Private or class voice. May be repeated for credit.

#### Mus 3710 Piano Repertory (½)

Study and performance of representative cross-section of the piano repertory. May be repeated for credit. Corequisite: Private piano lessons.

#### Mus 3720 Guitar Repertoire Class (½)

Study and performance of representative cross-section of the guitar repertory. May be repeated for credit. Corequisite: Private guitar lessons.

#### Mus 3750 Chamber Music (½)

Study and performance of representative cross-section of chamber music works. May be repeated for credit. Prerequisite: Music major curriculum or demonstrated performance proficiency.

#### Ensembles

*Study, rehearsal and performance of representative works in various styles and from different periods. May be repeated for credit. Open to all students. Attendance at all rehearsals and performances is mandatory, including those occurring at other than designated class times.* Prerequisite: Audition or consent of conductor.

- Mus 2810 Chorale (1)**  
*Bleeke*
- Mus 2820 Women's Chorus (½)**  
*Montgomery*
- Mus 2830 Men's Chorus (½)**
- Mus 2840 Opera Class (½)**
- Mus 2850 String Orchestra (½)**
- Mus 2860 Woodwind Choir (½)**  
*Zimmer, L. J.*
- Mus 2870 Brass Choir (½)**
- Mus 2879 Jazz Ensemble (1)**
- Mus 2880 Jazz Workshop (½)**
- Mus 2890 Percussion Ensemble (½)**
- Mus 2895 Guitar Ensemble (½)**  
*Perry*

*Full curricular ensembles:*

- Mus 3800 Concert Chorus (½)**
- Mus 3850 Orchestra (½)**
- Mus 3860 Band (1)**

#### Independent Study

##### Mus 4901, 4902, 4903 Independent Study in Music (1,2,3)

The opportunity for students of advanced ability to pursue in a concentrated but informal manner a specific area of study in music not available through current course offerings. Prerequisite: Consent of department chairperson.

##### Mus 4939 Elementary Classic Guitar Workshop (3)

Introductory course for those desiring to play the classic guitar. Study of the fundamental techniques used on this instrument. Class and individual instruction. Students will learn to read music. Must have nylon string guitar.

##### Mus 4940 Opera Workshop (4)

Introductory course concentrating on operatic roles and presentations. Study of the basic techniques used in opera including vocal production, staging, accompanying, and writing. Prerequisite: All candidates will be required to either audition or to provide an audition tape to determine their qualifications as to vocal and musical ability.









**PS 3680 Constitutional Law: Criminal Procedures (3)**

An analysis of the development of the Fourth, Fifth, and Sixth Amendments to the United States Constitution, the effect of the Due Process clause of the Fourteenth Amendment on the application of the Bill of Rights, and related issues revealed in leading Supreme Court decisions in Criminal Justice.

Prerequisite: PS 2600, or permission of instructor.

*Israel*

**PS 3685 Substantive Criminal Law (3)**

Common Law felonies, criminal culpability and criminal defenses.

Prerequisite: PS 2600.

*Israel*

**PS 3690 The Role of the Prosecutor (3)**

Ethical and practical considerations involved in the prosecutor's responsibility to see that justice is done. Limits of prosecutorial discretion, equal protection problems, separation of powers between the executive (prosecutor) and the judiciary, relationships with the Grand Jury, relations with defense counsel, and politics of the prosecutor's office.

Prerequisite: PS 2600 or permission of instructor.

**PS 4600 Honors Seminar in Criminal Justice (3)**

Open to advanced students in the option in Criminal Justice. Concentration on in-depth analyses of particular aspects of the American criminal justice system. As topics vary, course, where appropriate, may be taken more than once for credit.

Prerequisites and/or corequisites: PS 2600, 2100, two upper level criminal justice electives, a 3.0 overall cumulative average and a 3.2 cumulative average in political science and public administration. Prerequisites and/or corequisites may be waived by instructor.

*Israel, Sanchez*

**PS 4650 Community Based Corrections (3)**

Philosophy, theories and realities of dealing with delinquents in a community based setting. Selecting and administering the proper community based corrections for each type of client, such as the youth service bureau, group home, half-way house, non-residential group treatment center or other alternatives.

Prerequisite: PS 2600, 3650 or permission of instructor.

*Sanchez*

**Urban**

**PS 3700 The Urban Political System: Politics and Problems (3)**

The analysis of the urban political system and its relations to other community systems, with emphasis on function and dysfunction.

Prerequisite: PS 2100.

*Daly, Rubin*

**Internship**

**PS 4800 Cooperative Education in Political Science (9)**

**PS 4801 Seminar for Cooperative Education Students in Political Science (6)**

Opportunity for students to obtain practical, long-term experience in supervised governmental or public interest organization work linked to related academic seminars. Student works approximately four and one-half days each week for approximately a full semester or the equivalent and participates in regular meetings of a related academic seminar. Financial remuneration as arranged.

Six of the involved credits will count as major elective credits in political science and the remaining nine credits will count as free electives. (If a student is in a major other than political science, all 15 credits will count as free electives. However, the student's department may accept some of these credits as meeting major requirements.) No more than 40 credits in political science, including credits earned through this course, count toward the minimum requirements for graduation. PS 4800 and 4801 are taken concurrently. Students receiving credit for PS 4800 and 4801 may not also receive credit for PS 4802 and 4803.

Prerequisites: Junior status and permission of departmental selection board.

*Rubin*

**PS 4802 Cooperative Education in Political Science II (6)**

**PS 4803 Seminar for Cooperative Education Students in Political Science II (3)**

Opportunity for students to obtain practical, long-term experience in supervised governmental or public interest organization work linked to related academic seminars. Student works approximately four and one-half days each week for approximately eight weeks or the equivalent and participates in regular meetings of a related academic seminar. Financial remuneration as arranged.

Three credits count as major elective credits in political science and the remaining six credits count as free electives. (If a student is in a major other than political science, all nine credits count as free electives. However, the student's department may accept some of these credits as meeting major requirements). No more than 40 credits in political science, including credits earned through this course, count toward the minimum requirements for graduation. PS 4802 and 4803 are taken concurrently. Students receiving credit for PS 4802 and 4803 may not also receive credit for PS 4800 and 4801.

Prerequisites: Junior status and permission of departmental selection board.

*Rubin*

**Independent Study**

**PS 4990 Independent Study: Tutorial Course for Political Science Majors (3)**

A tutorial course for political science majors whose individual needs are not met by formal courses. Periodic meetings. Substantial research and reading is required.

Prerequisites: Twelve hours of political science; open only to political science majors who have made prior arrangements with a member.



**Public Administration Courses**

**Overview and Organization**

**PA 1000 Introduction to Public Administration (3)**

An introduction to the processes of administration with emphasis upon policy making in the national and state political systems and roles of groups and their impact upon administrative decision-making.

*Daly, Lederman*

**PA 3000 Public Management (3)**

Analysis and evaluation of the techniques, skills and resources necessary for the effective direction and oversight of public agencies including: leadership styles, effective supervisory practices, and political context.

Prerequisite: PA 1000 or permission of instructor.

*Daly, Kelly*

**PA 3010 Contemporary Public Organizations (3)**

Theoretical and scientific bases of public organizations. Research methods.

Prerequisite: PA 1000 or PS 2100 or permission of instructor.

*Laudicina*

**PA 3020 Public Personnel Administration (3)**

Survey of the processes of recruitment and managing personnel in public services. Philosophy of merit system, evolution of the career system, techniques of recruitment, comparative modern structures and the position classification system.

Prerequisite: PA 1000 or permission of instructor.

*Kelly*

**PA 3030 Administration of the Public Finances (3)**

How governments get and spend and handle revenue. Budgeting and taxing processes are analyzed in the dual perspective of public finance theory and political science.

Prerequisites: PA 1000. Eco 3320 or permission of instructor.

*Laudicina, Lederman*

**PA 3050 Public Policy Evaluation (3)**

Analysis and evaluation of the quantitative and qualitative techniques and skills necessary for effective planning and evaluation of programs in the public sector.

Prerequisite: PA 1000 or permission of instructor.

*Lederman*

**PA 3060 Management Information Systems in the Public Sector (3)**

Analysis and evaluation of the quantitative and qualitative techniques necessary for the utilization of management information systems in public organizations.

Prerequisite: PA 1000 or permission of instructor.

*Fahrahi*

**PA 3070 Administration of Public Policy (3)**

Examination of the administrative policy making process, involving both policy formulation and policy implementation. The demands on administrators from various sectors of the political system for policy change as well as bureaucratic influence on legislative policy making are also considered.

Prerequisite: PA 1000.

*Lederman*

**Levels of Government**

**PA 3110 American Federalism (3)**

An analysis of the constitutional and institutional relationships among federal, state and local governments. Grants-in-aid, interstate compacts and intergovernmental cooperation in health, welfare and education.

Prerequisites: PA 1000, PS 1010, 1020, 2100, or permission of instructor.

*Lederman*

**PA 3130 The Administration of Metropolitan Areas (3)**

Administration of governmental services in metropolitan regions. The governmental organizations and procedures involved in responding to the needs of a rapidly changing urban environment. The roles of different jurisdictions which may overlap or compete for fiscal resources.

Prerequisite: PA 1000 or permission of instructor.

*Daly*

**PA 3140 Administration of Local Government (3)**

The practical requirements and the political context of central direction in the management of public affairs on a local level are explained from the viewpoint of a professional administrator.

Prerequisite: PA 1000, PS 2110 or permission of instructor.

**PA 3150 New Jersey: Local and County Government (3)**

An examination of local and county governing bodies in New Jersey, political and administrative processes, current issues and controversies.

Prerequisite: Three hours in political science, public administration or permission of instructor.

**Comparative**

**PA 3210 Urbanization in Developing Countries: Administrative Aspects (3)**

Analysis of the political and administrative aspects of urbanization in developing countries. Problems of land use, housing, transportation and the financing of urban services. The role of public administrators in developed and underdeveloped nations are compared.

Prerequisite: PA 1000 or permission of instructor.

**Applied Areas**

**PA 3330 Housing and Urban Renewal (3)**

Public housing, public programs assisting private housing, and the legal, jurisdictional and administrative aspects of such programs. The role of urban renewal agencies and model cities.

Prerequisite: PA 1000 or permission of instructor.

**PA 3340 Land Use Regulation (3)**

Analysis of legal and administrative aspects of land use with emphasis on zoning, subdivision controls, eminent domain, interstate compacts and code enforcement. The interaction of various levels of government in land use regulation.

Prerequisite: PA 1000 or permission of instructor.

**PA 3350 Collective Bargaining in the Public Sector (3)**

Analysis of collective bargaining as a social and political process within an economic framework, with special emphasis on employee association in the public sector.

Prerequisite: PA 1000 or permission of instructor.

*Kelly, N. Weiss*

**PA 3370 Administrative Issues in Energy (3)**

Examination of the administrative issues which confront the U.S. with respect to the policy choices it must make regarding the use of renewable energy sources and the consumption of depletable energy reserves.

Prerequisite: PA 1000 or permission of instructor.

**PA 3380 Grantsmanship for Public Administrators (3)**

Introduction to the intergovernmental grants process; examination of American intergovernmental relations and assistance structures; techniques for researching, planning, writing, packaging and lobbying grant and contract proposals.

Prerequisite: PA 3110 or permission of instructor.

*Lender*

## Planning

### PA 3400 Principles of Planning (3)

Need for planning in urban areas. Survey of the significance of urban areas and their development in particular locations. Aspects of new town developments.

Prerequisite: PA 1000 or permission of instructor.

### PA 3420 Organizational Development in the Public Sector (3)

Analysis of the planning, theory, applications and history of organizational development of public organizations.

Prerequisite: PA 1000 or permission of instructor.

## Rule of Law

### PA 3500 Administrative Law (3)

Delegation of powers, separation of powers, rule-making by administrative agencies. Study of cases which affect the administrative process and relate to the scope of judicial review.

Prerequisite: Permission of instructor.

## Criminal Justice

### PA 3600 Police Organization and Administration (3)

An examination of the development, organization and administration of police departments and a consideration of the principle of organization best adapted to insure effective service to the community. Evaluation of line, staff and auxiliary functions, and analytic units of administration will be covered.

Prerequisite: PA 1000 or permission of instructor.

### PA 3610 Correctional Systems (3)

Post-conviction procedures and strategies in dealing with clients of the criminal justice system, with emphasis on correctional services; attention paid to the evolution of correctional services, its current organization and operation, its association with the court system, and its inter-relationships with other elements of the justice system.

Prerequisite: PS 2600 or permission of instructor.

*Sanchez*

### PA 3620 Probation and Parole (3)

A specialized approach to correctional strategies with emphasis on competencies and resources needed for effective probation and parole work and for entry into the system.

Prerequisite: PS 2600 or permission of instructor.

### PA 3640 Comparative Criminal Justice Systems (3)

A study of criminal justice systems in selected nations, analyzed in comparison to systems in the United States. Attention will be paid to

values, goals, administrative procedures and legal restraints.

Prerequisite: PS 2600 or permission of instructor.

### PA 3660 White Collar and Corporate Crime (3)

The nature, extent and impact of illicit behavior on the part of corporations, government agencies and their employees. Problems encountered in establishing criminal responsibility for prosecutions and in applying meaningful sanctions to corporate acts, in the context of the political environment.

Prerequisites: PS 2100, 2600 or permission of instructor.

*Sanchez*

## Health Care and Administration

### PA 3750 Administration of Health Organizations and Agencies (3)

The modern health care institution from the internal point of view; in depth examination of the three major organizational components of the management structure—the board, administration and organized physicians; institutional influences upon the delivery of patient care.

Prerequisite: PA 2700 or permission of instructor.

### PA 3760 Principles and Methods of Health Planning (3)

Introduction to the theories, concepts and principles upon which the practice of health planning is based, and the practice of health planning in the United States.

Prerequisite: PA 2700 or permission of instructor.

## Seminar

### PA 4700 Seminar in Public Administration (3)

A detailed examination of current issues and problems in the field of public administration; emphasis on individual student projects and research.

Prerequisites: PA 1000 plus three additional credits in public administration, junior or senior status; or permission of instructor.

*Daly, Laudicina*

## Internship

### PA 4800 Internship in Public Administration I (3)

Supervised placement one or two days per week in a public agency, offering direct participation in public administration. Concomitant one and one-half hour weekly seminar to integrate course knowledge with field experience.

Prerequisites: Six hours of Public Administration and permission of instructor.

*Daly, Lederman*

### PA 4801 Internship in Public Administration II (3)

Continuation of PA 4800.

Prerequisites: PA 4800 and permission of instructor.

*Daly, Lederman*

### PA 4810 Cooperative Education in Public Administration (9)

### PA 4811 Seminar for Cooperative Education Students in Public Administration (6)

Opportunity for students to obtain long-term experience in supervised public agency work linked to related academic seminars. Student works full-time (forty hours a week) during the full fall or spring semester and attends weekly seminar series on topics related to agency work. Six of the involved credits count as major elective credits in Public Administration; the remaining nine credits count as free electives. No more than forty credits in Public Administration, including the 15 credits that can be earned through this course, can count toward the minimum 124 credits required for graduation.

PA 4810 and 4811 must be taken concurrently.

Prerequisites: Junior or senior status, PA 1000, nine additional credits in public administration and permission of instructor. Prerequisites may be waived by instructor.

*Lederman*

### PA 4990 Independent Study in Public Administration (3)

Tutorial course for public administration majors, with required project reports. Periodic meetings, substantial research and reading required.

Prerequisites: Twelve hours of public administration. Open only to public administration majors who have made prior arrangements with a faculty member.

## Psychology Courses

### General

#### Psy 1000 General Psychology (3)

Introduction to the study of behavior; biological bases of behavior, perception, learning, cognition, motivation, development, personality, measurement, psychopathology, social behavior. Foundation for those interested in the behavioral sciences or social service occupations.

#### Psy 1001 Individualized General Psychology (3)

An alternative to Psy 1000, intended for students who desire self-paced individualized instruction. Students will be given objectives for short units. Individual evaluation for each unit will demonstrate mastery of unit objectives or the need for additional study or individual tutoring before the student proceeds to the next unit in the sequence.

## PSYCHOLOGY

#### Psy 1005 Honors General Psychology (3)

Introduction to the study of behavior; biological bases of behavior, perception, learning, cognition, motivation, development, personality, measurement, psychopathology, social behavior. Foundation for those interested in the behavioral sciences or social service occupations. Can be substituted for Psy 1000. Prerequisites: In top 25% of entering students on SAT verbal scores, in top 25% of high school graduating class and permission of psychology department honors committee.

*Kind*

### Developmental

#### Psy 2100 Child Psychology (3)

Emphasis on the major processes in human behavior which have their roots in early childhood: hereditary and environmental sources affecting social, emotional, intellectual and physical development.

Prerequisite: Psy 1000.

#### Psy 2110 Psychology of Adolescence (3)

An examination of the nature of adolescence as characterized by the group of developmental problems (biological, psychological, and social in origin) typically occurring during the second decade of life.

Prerequisite: Psy 1000.

*DiSalvi, Feigenbaum*

#### Psy 3110 Life-Span Developmental Psychology (3)

An examination of various psychological processes as they develop across the life-span. Emphasis on theories and concepts of psychological development in interaction with biological and social development.

Prerequisite: Psy 1000.

*Avioli*

#### Psy 3120 Adult Psychology (3)

Human development from young adulthood into later maturity: application of the developmental approach as a systematic framework for viewing the adult years and the aging process; interaction of psychological, social, and physiological aspects of development.

Prerequisite: Psy 2100 or 2110.

*DiSalvi*

#### Psy 3130 The Psychology of Aging (3)

Developmental processes in later life: the effects of aging on various aspects of behavior, including motivation, memory, learning, motor performance, intellectual ability, problem solving, personality, social adjustment and psychopathology.

Prerequisite: Psy 2100 or 2110.

*Avioli*

### Experimental and Measurement

#### Psy 3200 Psychological Statistics (3)

Introduction to statistical procedures by which data are described and used for inference. Measures of central tendency, variability, correlation, regression, probability, hypothesis testing and nonparametric statistics.

Prerequisite: Psy 1000.

*Bruel, S. Schwartz*

#### Psy 4200 Tests and Measurements (3)

An introduction to concepts of psychological testing and a survey of various instruments used in psychology to measure intelligence, aptitudes, achievement, attitudes and personality.

Prerequisite: Psy 3200.

*Fraunfelker*

#### Psy 4230 Experimental Psychology (4)

Systematic methods used in conducting and evaluating psychological research, primarily experimental. Topics include identifying and defining research problems, classifying variables, experimental design and analysis, collecting and evaluating data and writing research reports (includes laboratory sessions). Credit may not be received for both Psy 4230 and Psy 4235.

Prerequisite: Psy 3200.

#### Psy 4235 Honors Experimental Psychology (4)

Systematic methods used in conducting and evaluating psychological research, primarily experimental. Topics include identifying and defining research problems, classifying variables, experimental design and analysis, collecting and evaluating data and writing research reports. Major project will be proposed to be carried out in Honors Seminar. May be substituted for Psy 4230. Credit may not be received for both Psy 4230 and Psy 4235.

Prerequisites: Psy 3200; 3.5 GPA in Psychology; Interview with honors committee.

*M. Harris*

### Specialized Areas: Theoretical and Experimental

#### Psy 3310 Psychology of Learning (3)

Major principles of learning examined in terms of theoretical origins, current research and strategic applications.

Prerequisite: Psy 1000.

*Bousquet, Jaffe, Morelli*

#### Psy 3320 Theories of Personality (3)

Various systematized conceptualizations of personality including psychoanalytic, behavioral, cognitive, personalistic, phenomenological. Current areas of research including cognitive and biological factors. Relationships to clinical applications.

Prerequisite: Psy 1000.

#### Psy 3330 Psychology of Consciousness (3)

Survey of recent trends and findings in the psychological investigation of consciousness. Topical areas include theories of the mind, brain bilaterality, experienced time, dreams and hypnosis, language, meditation, biofeedback and consideration of the mind/body problem.

Prerequisites: Six hours of psychology and junior standing.

*Springer*

#### Psy 3340 Psychology of Women (3)

An exploration of the theories and research on the physiological and psychological factors affecting contemporary women. Topics of interest to both males and females.

Prerequisite: Psy 1000.

*Gonsalves, Kind*

#### Psy 3360 Theories of Motivation (3)

Motivation studied through systematic theory and current research. Topics include physiological and regulatory system, ethology, drives, arousal, hedonism, reinforcement, need-systems and motivation as related to personality theory.

Prerequisite: Psy 1000.

*Kaplowitz*

#### Psy 3380 Psychology of the Arts (3)

The psychological processes that make possible the creation of and response to the arts are explored by examining the psychology of the participants in the artistic process—the artist, the performer, the audience, and the critic.

Prerequisite: Six hours of psychology.

#### Psy 4310 History and Systems of Psychology (3)

History of psychology from its origins to its modern systematic conceptualizations. The influence of early systems, theories and schools on contemporary psychology.

Prerequisite: Psy 1000.

*Fraunfelker*

#### Psy 4360 Physiological Psychology (3)

Study of the physiological bases of behavior. Fundamentals of neuronal and synaptic activity, the nervous and endocrine systems. Traditional topics such as memory, motivation and emotion as well as current research areas covered.

Prerequisite: Psy 1000; Bio 2402 recommended.

*M. Harris*

#### Psy 4380 Psychology of Perception (3)

A review of theories of perception and a study of the environmental variables and underlying physiological processes which determine the selective human interaction with environmental events.

Prerequisite: Psy 1000.

*S. Schwartz*

**Psy 4390 Cognitive Processes (3)**

Function, structures and processes of cognition. Theories and research findings concerning cognition and related topics; learning, problem solving, concept formation, behavioral and experiential aspects of thinking, psycholinguistics, memory and creativity.

Prerequisite: Psy 3310.

*Bousquet*

**Specialized Areas: Applied**

**Psy 3400 Organizational Behavior (3)**

Psychological perspectives on aspects within work organizations. Representative aspects include basic processes and problems; motivation, personnel policies, authority issues and control, organizational information processing, productivity, job redesign, organization development and workers' participation.

Prerequisite: Psy 1000.

*Springer*

**Psy 3420 Environmental Psychology (3)**

Principles of psychology applied to experienced physical settings and their effects upon various aspects of human behavior. Selected topics include the built environment, psycho-environmental issues, environmental stresses, crowding, perceptual and motivational aspects of work, play and therapeutic environments.

Prerequisite: Psy 1000.

**Psy 4400 Principles of Behavioral Analysis (3)**

The analysis of behavior directed toward the explicit prediction and control of the behavior of humans. The detailed account of the terms, concepts, methodology and research findings of a scientific analysis of behavior according to the theory and principles of operant conditioning.

Prerequisite: Psy 3310.

*Jaffe, Morelli*

**Psy 4420 Industrial/Organizational Psychology (3)**

Principles of psychology applied to industrial problems and organization. Selected topics in personnel selection and training, human factors engineering, worker morale, consumer and organizational psychology.

Prerequisites: Psy 1000 and a course in statistics.

*Springer*

**Psy 4440 Functional Neuropsychology (3)**

Review of neurological variation and disorders associated with behavioral dysfunction or atypical development. Remediation alternatives based on neuropsychological research on such topics as brain organization, sensory-motor integration, dysphasias, bio-feedback, and behavioral controls.

Prerequisites: Bio 2402 and Psy 3540.

*Youtz*

**Psy 4450 Survey of Therapeutic Psychology (3)**

Basic principles, major theories and research in the therapeutic psychology. Includes psychoanalytic, humanistic and behavioral models.

Prerequisite: Psy 3540.

*Saperstein*

**Personality Dynamics**

**Psy 3540 Abnormal Psychology (3)**

Deviant and disordered behavior, its overt manifestations and its psychological, biological, and social origins.

Prerequisite: Psy 1000.

**Psy 4520 Psychodynamics of Individual and Group Behavior (3)**

The psychodynamic influences on individual and group behavior, as explicated in major works of psychoanalytic psychology.

Prerequisite: Psy 3320.

*N. Harris, Saperstein*

**Social Psychology and Group Processes**

**Psy 3630 Social Psychology (3)**

The social determinants of behavior. An examination of theories and current research in such areas as: aggression, attitudes, communication, conformity, group processes and interpersonal perception.

Prerequisite: Psy 1000.

*Kind*

**Psy 3650 Understanding Self and Others (3)**

Experientially based personal growth experience. Focuses on understanding and involvement and small group interaction and personal growth processes through structured exercises. Emphasis on skill building in interpersonal process.

Prerequisite: Psy 1000.

*Feigenbaum, Saperstein, F. Stern*

**Psy 3660 Community Psychology (3)**

Emphasis on the transactions between people and social systems. Methods of intervention in and evaluation of the ways persons and various levels of environment fit together. Origins and developments of community psychology examined. Applications for psychologists and other community service providers considered.

Prerequisite: Psy 1000.

**Seminars and Individualized Study**

**Psy 4930 Seminar in Advanced General Psychology for Teaching Assistants (3)**

A seminar for advanced students in psychology interested in acting as teaching assistants in Psy 1001. Seminar discussions analyze problems encountered by beginning students and serve as comprehensive review of major topics in general psychology for students who desire firm basis for advanced studies in psychology. Provides experience in developing interpersonal skills required for scholastic advisement.

Prerequisites: Psy 3200, 3310, 3320 and permission of instructor.

**Psy 4940 Seminar: Issues in Contemporary Psychology (3)**

Synthesis of student's previous course work in psychology, with consideration of significant current developments in theory, research and practice. *Credit cannot be received for both Psy 4940 and 4945.*

Prerequisite: Open only to senior psychology majors.

**Psy 4945 Honors Seminar: Issues in Contemporary Psychology (3)**

Synthesis of student's previous course work in psychology with a consideration of significant current developments in theory, research and practice. Completion of senior research project: data collection and analysis, oral and written presentations. May be substituted for Psy 4940. *Credit cannot be received for both Psy 4940 and 4945.*

Prerequisite: Psy 4235 and permission of honors committee.

*M. Harris*

**Psy 4950 Field Experience in Psychology (3)**

A learning experience derived from a field experience, usually off-campus, related to the major. Specific job or volunteer work in institutional, industrial, governmental or social setting to be arranged in conference with course instructor. Weekly seminar to integrate course knowledge with field experience.

Prerequisites: Junior or senior psychology major. 3.00 GPA or better in psychology, courses appropriate to specific placement and permission of instructor.

**Psy 4970 Independent Study in Psychology (3)**

In-depth study of an appropriate topic of individual interest under the supervision of a member of the department. Meeting hours arranged by the student and the instructor to consist of the equivalent of thirty 75-minute periods. Content not to duplicate any existing course.

Prerequisites: Senior psychology major, 3.00 GPA in major, permission of instructor and department chairperson.

**Sociology Courses**

**General and Conceptual**

**Soc 1000 Social Life and Society: Introduction to Sociology (3)**

Social life, society, and the individual. An introduction to the viewpoints of sociology.

**Theory and Method**

**Soc 2050 Social Statistics (3)**

An analysis of the measurement problems involved in the treatment of sociological data. An introduction to statistical techniques most frequently used in sociological research.

Prerequisites: Knowledge of high school algebra sufficient and Soc 1000 or permission of department chairperson.

*Stimson*

**Soc 2052 Methods of Social Research (3)**

The collection, organization, analysis and reporting of problem-centered social data, including sampling, interview techniques, the construction of questionnaires and the conduct of surveys.

Prerequisite: Soc 1000.

*Stimson*

**Soc 3050 Development of Sociological Theory (3)**

A critical survey of the major theoretical viewpoints in nineteenth and early twentieth century sociological thought.

Prerequisite: Six hours of sociology or permission of department chairperson.

*Wase, Yellin*

**Soc 3052 Qualitative Methods in Social Research (3)**

An introduction to the qualitative aspects of research with emphasis on the theory and practice of the techniques of content analysis, participant observation and interviewing.

Prerequisites: Soc 2050 and 2052.

*Stimson*

**Soc 3060 Society and Self (3)**

Analysis of the influence of social factors on the nature of self-attitudes. Beliefs and values. Review of theory and research on the nature of the socialization process.

Prerequisite: Soc 1000 or permission of department chairperson.

*Kammerman, Stimson*

**Soc 4051 Contemporary Sociological Theory (3)**

An investigation of various theoretical frameworks utilized by sociologists in viewing societies, social institutions and social interaction. An analysis of the major work of a number of twentieth century theorists.

Prerequisite: Six hours of sociology or permission of department chairperson.

*Wase*

**Soc 4052 Evaluation Research (3)**

An introduction to the direct application of research methods to the evaluation of any purposive change plan; a social program, and advertising campaign, job training.

Prerequisites: Soc 2050 and 2052 or permission of department chairperson.

*Stimson*

**Soc 4054, 4055 Advanced Research Seminar I, II (3,3)**

Direct involvement in the methodological and statistical techniques needed to collect and analyze "real-life" quantitative data. Large scale data analysis techniques. Experience in preparing data results for application to ongoing policy processes.

Prerequisites: Soc 2050 and 2052 or their equivalent and permission of department chairperson. CpS 1931 is recommended. Soc 4054 is prerequisite for Soc 4055.

*Stimson*

**Soc 4060 Personal and Social Interaction (3)**

Face-to-face interaction, how the individual relates to others at work, in friendships, and in intimate relationships.

Prerequisite: Soc 1000 or permission of department chairperson.

*Kammerman, Stimson*

**Soc 4090 Independent Study (3)**

An opportunity for the senior sociology student to develop and carry out an individual project subject to the permission of an advisor and the department chairperson. Meetings arranged by the student and advisor.

**Institutions**

**Soc 2100 Sociology of the Family (3)**

Analysis of sociological factors in marriage and the family in modern society, with cross-cultural comparisons.

Prerequisite: Soc 1000.

*Mayo*

**Soc 2150 Sociology of Sport (3)**

Sport as a major institution in modern society and a significant aspect of popular culture: the relation of sport to other institutions (government, culture, education), social processes and cultural values.

Prerequisite: Soc 1000.

**Soc 3110 Sociology of Education (3)**

Education as a social institution and an organizational complex. The relationship between educational objectives and cultural values, manifest and latent functions of education.

Prerequisite: Soc 1000.

*Wase*

**Soc 3150 Urban Sociology (3)**

Analysis of the process of urbanization, urban settlement patterns, social structure, and life styles. Consideration of the particular problems posed by the urban setting.

Prerequisite: Soc 1000.

*Mayo, Naughton*

**Soc 3151 The Community (3)**

An analysis of human communities studied in relationship to the global processes of industrialization and urbanization. Review of the theories and research on various types of communities with a focus on changing bases for the construction of community and inter-community relationships.

Prerequisite: Soc 1000.

*Mayo, Naughton*

**Soc 3404 Society and Computer Culture (3)**

Sociological investigation of relationships among computers, culture, and society. Social effects of the computer as an example of technological expansion within societies. The social bases for computer development. Familiarity with computers helpful.

Prerequisite: Soc 1000 or permission of department chairperson.

*Naughton*

**Soc 4100 Sociology of Religion (3)**

A comparative and analytical treatment of religion as a social institution. The relation of religion to family, government economy and other structures. Religion considered as an agent of change and stability in society.

Prerequisite: Soc 1000.

*Yellin*

**Soc 4110 Political Sociology (3)**

A review and analysis of theory and research on the nature and distribution of power in society. A study of the social variables and processes determining stability and change in the political institution.

Prerequisite: Soc 1000.

*Yellin*

**Soc 4150 Sociology of Death (3)**

Examination of the social aspects of death and dying. An analysis of cultural factors involved in death-related behavior through the use of a cross-societal perspective. Discussion of mutual relationships between an individual's death and social systems.

Prerequisite: Soc 1000 or permission of department chairperson.

*Kammerman, Yellin*

**Soc 4300 Sociology of Health Care (3)**

An examination of the influence of social and cultural phenomena on sickness and health. Analysis of the organization of medical care and medical institutions.

Prerequisite: Soc 1000 or permission of department chairperson.

*Kammerman*

**Formal Organizations**

**Soc 3200 Work and Careers:**

**A Sociological Approach (3)**

The world of work in modern industrial society examined and analyzed in terms of management theory, human relations and occupations.

Prerequisite: Soc 1000 or permission of department chairperson.

*Wheeler*

**Soc 4200 Complex Organizations (3)**

A survey of theory and research on complex or formal organizations. Major emphasis on the bureaucratic model, its modifications and special adaptations.

Prerequisite: Soc 1000.  
*Wase, Wheeler*

**Social Differentiation****Soc 2300 American Ethnic & Racial Groups (3)**

The cultural traditions and social relations among ethnic and racial groups in American society.

Prerequisite: Soc 1000.  
*Naughton*

**Soc 2305 Hispanic Americans in Contemporary Society (3)**

An intensive investigation of Hispanic ethnic groups in modern United States society, with attention focused on the dynamics of migration and settlement, enduring socio-cultural patterns, and the processes and problems of inclusion and assimilation.

Prerequisite: Soc 1000.  
*Naughton*

**Soc 2308 The Female World: Fairy Tale and Fact (3)**

Women as members of a society; how their life chances are influenced by how societies define women and how these societies act toward women. Emphasis on society in the United States.

Prerequisite: Soc 1000.  
*Wase*

**Soc 2350 Sociology of Dress and Adornment (3)**

The examination of dress as a social phenomenon; the ways in which dress has been and is used to maintain society's social, economic and political structures; use of dress by subcultures and individuals.

Prerequisite: Soc 1000.  
*Kamerman*

**Soc 3170 Japanese Challenge: Lessons for America (3)**

A comparative study of Japanese society: the family, community, workplace, politics, and government. An evaluation of the claim that Japan is "number one" in crucial areas challenging America today such as worker productivity, crime control, quality and equality in education, and industrial policy.

Prerequisite: Soc 1000.

**Soc 3350 Social Inequality in America (3)**

An analysis of wealth, power, and prestige in America. Comparisons with other societies.

Prerequisite: Soc 1000 or permission of department chairperson.  
*Wheeler, Yellin*

**Soc 3360 Population (3)**

An investigation of the composition and distribution of the population in the United States and selected countries. An analysis of the determinants and consequences of change in the basic processes of fertility, mortality and migration.

Prerequisite: Six hours of sociology or permission of department chairperson.  
*Mayo*

**Soc 3370 Sociology of the American Jewish Community (3)**

Sociological analysis of the American Jewish Community; historical evolution of the community; social structure and religious movements; Jewish demography and politics; patterns of Jewish identification; anti-semitism and Jewish reactions; future trends in the American Jewish community.

Prerequisite: Six hours of sociology or permission of department chairperson.  
*Langer*

**Soc 4301 Sex and Society (3)**

An analysis of the social and cultural determinants of sexual behavior. Examination of the social roles of men and women and the possible influence of sex differences on the organization of society.

Prerequisite: Soc 1000.  
*Yellin*

**Soc 4350 Sociology of Aging (3)**

Aging as a social process at the individual and the societal level. The demography of age strata, strata boundaries and age related experience in American society.

Prerequisite: Soc 1000.  
*Wase*

**Social Dynamics****Soc 3400 Collective Behavior (3)**

A review of concepts about human interaction in unstructured situations as in a panic, craze, a riot. The role of rumor, propaganda and public opinion in such phenomena. Studies in depth of selected contemporary examples.

Prerequisite: Soc 1000 or permission of department chairperson.  
*Wheeler*

**Soc 3410 Social Movements (3)**

An examination of sociological and social psychological theories of the origins and career patterns of social movements. Study in depth of selected examples.

Prerequisite: Soc 1000 or permission of department chairperson.  
*Wheeler*

**Soc 4401 Social Change (3)**

An investigation of various theoretical frameworks utilized by sociologists in viewing social change. An analysis of numerous case studies of change in modern societies.

Prerequisite: Soc 1000 or permission of department chairperson.  
*Naughton*

**Soc 4450 Sociology of Extreme Situations (3)**

A sociological analysis of extreme situations. Emphasis on the mass murder and death camp experiences of Jews during World War II; comparisons with other extreme situations such as trench warfare, the bombing of Hiroshima and its aftermath, institutionalization in asylums and prisons, and mass suicide. Social problems of survivors and their families.

Prerequisite: Soc 1000 or permission of department chairperson.  
*Langer*

**Deviance and Disorganization****Soc 2710 Crime and Delinquency (3)**

An analysis of crime and delinquency as social phenomena. The relationship of crime and delinquency to various social institutions such as the economy, the family, the law.

Prerequisite: Soc 1000 or permission of department chairperson.  
*Langer*

**Soc 4700 Sociology of Deviance (3)**

Analysis of deviant behavior as a general characteristic of social systems. Critical review of various sociological theories concerning the nature and functions of deviance.

Prerequisite: Soc 1000 or permission of department chairperson.  
*Langer*

**Anthropology Courses****Ant 1800 Cultural Anthropology (3)**

The structures and functions of the culture systems of both simple and complex societies, employing the methods and concepts of anthropology.

*White*

**Ant 2810 Physical Anthropology (3)**

A systematic examination of theories of human evolution; an investigation into genetic processes and the physiological basis for racial origins and variations. A consideration of natural and cultural selection, ethnology and eugenics.

**Ant 2820 Urban Anthropology (3)**

An analysis of the city as a cultural setting using anthropological methods including ethnographic field work.

Prerequisite: Ant 1800 or permission of instructor.  
*White*

**Ant 3820 Dynamics in Tribal and Peasant Economic Life (3)**

Anthropological perspective on the dynamics of tribal and peasant economies.

Prerequisites: Soc 1000, Ant 1800 or Eco 1020 or 1021.

**Ant 3830 Anthropology of North American Indian Cultures (3)**

Study of North American Indian cultures 35,000 B.C.-1800 A.D. concluding with the disruptive effect of European settlements on these cultures.

Prerequisite: Ant 1800 or permission of department chairperson.  
*White*

**Social Work Courses****SW 2900 Introduction to Social Work (3)**

An historical overview of the societal patterns of dealing with man's problems, from ancient to modern times, as reflections of changing values, institutions, and philosophies.

Prerequisite: Soc 1000 or permission of instructor.  
*Graves, Williams*

**Soc 2950 Human Behavior and Social Environment (3)**

An analysis of human functioning from the perspectives of developmental, family group and large system influences.

Prerequisites: SW 2900, Psy 2100 or permission of department chairperson.  
*Elias, Schreiber, Herina*

**SW 3901 Comparative Social Welfare (3)**

A study of social welfare programs outside the United States with particular emphasis on policies developed to meet recurring social welfare problems.

Prerequisite: SW 2900.  
*Graves*

**SW 3902 Social Welfare in Scandinavia (3)**

A critical analysis of the social welfare structure of selected Scandinavian countries through active participation in a study tour to those countries. Course does not count toward Social Work Major requirements.

Prerequisites: SW 2900 or permission of department chairperson.  
*Herina*

**SW 3950 Methods of Social Work I (3)**

Examination of the major methods of social intervention with individuals, groups, and communities, with focus on the values, ethics and skills of the social work profession. Case analysis and observation of helping techniques are utilized. Taken concurrently with SW 3951.

*Elias, Herina, Schreiber*

**SW 3951 Field Experience I (2)**

Supervised field experience for development of beginning social work skills and theory. Taken concurrently with SW 3950. Pass/fail basis only.

**SW 3952 Methods of Social Work II (3)**

A continuation of SW 3950. Development of the theoretical framework of the integrated approach to social work practice. Methods, goals and skills of social work practice. Taken concurrently with SW 3953.

Prerequisite: SW 3950.  
*Elias, Herina, Schreiber*

**SW 3953 Field Experience II (2)**

Supervised field experience for further development of social work skills and theory. Taken concurrently with SW 3952.

Prerequisites: SW 3950 and 3951.

**SW 3954 Methods of Social Work III: Macro Practice (3)**

Generic social work practice enlarged with focus on intervention on group, organizational, community and institutional levels.

Prerequisites: SW 3950 and 3951.  
*Graves, Williams*

**SW 4000 Contemporary Social Policy and Services (3)**

Study of current social welfare programs in relation to the policies and provisions required to meet the various social needs of the people in this and other countries.

Field observations of selected community helping programs: (limited to second semester juniors or seniors).

*Graves, Schreiber*

**SW 4900 Field Experience III (4)**

Supervised placement two days per week in a community welfare or social service setting, offering direct participation in the helping process. Concomitant two hour weekly seminar to integrate course knowledge with field experience.

Prerequisites: SW 3952 and 3953; Corequisite: 4910.

**SW 4901 Field Experience IV (4)**

Continuation of field experience seminar on an advanced level. Supervised field experience in a community social agency offering increased opportunity for primary direct services to clients.

Prerequisites: SW 4900 and 4910; Corequisite: 4911.

**SW 4910 Senior Integrative Seminar I (2)**

Weekly seminar to integrate social work content and theory with field experience.

Corequisite: SW 4900.  
*Graves, Herina, Schreiber*

**SW 4911 Senior Integrative Seminar II (2)**

Continuation of weekly seminar to help students integrate theory and practice.

Corequisite: SW 4901.  
*Graves, Herina, Schreiber*

**SW 4950 Organization and Delivery of Social Services (3)**

Structure and setting of social services from the vantage point of the social problems to which such services are addressed.

Prerequisites: SW 3952 and 3953.  
*Graves, Williams*

**SW 4960 Social Work with Groups (3)**

A specialized method course in deepening understanding of and to facilitate skills in working with groups to bring about planned change effort.

Prerequisite: SW 3951.  
*Schreiber*

**SW 4970 Social Work with Individuals (3)**

A specialized methods course deepening the understanding of skills in social work study, diagnosis and treatment. Emphasis on the individual adult and child as well as the family unit in order to engage the client(s) in the planned change effort.

Prerequisite: SW 3951.  
*Herina*

**SW 4971 Practice and Issues in Service to Children (3)**

A comprehensive study of current trends and issues in the field of child welfare including focus on the nature of services, the kinds of problems they are designed to meet and evaluation of the services.

Prerequisites: SW 3952 and 3953.  
*Herina*

**SW 4980 Community Organization (3)**

A specialized method course deepening understanding of the principles, methods and integration of community practice in social work.

Prerequisite: SW 3951.  
*Graves, Williams*

**SW 4990 Independent Study in Social Work (3)**

Individual student's involvement in a project or readings; unique learning opportunity for the student who can proceed in educational growth at his/her own pace.

Prerequisites: SW 2052, 3953 and permission of instructor and department chairperson.

# SCHOOL OF NATURAL SCIENCES, NURSING AND MATHEMATICS

## Academic Programs

### Degrees

- B.A. in Biology, Preprofessional Option
- B.A. in Biology, Teacher Certification Option
- B.A. in Chemistry, General Option
- B.A. in Chemistry, Preprofessional Option
- B.S. in Chemistry, Expanded Option
- B.A. in Chemistry-Physics
- B.A. in Chemistry-Physics, Teacher Certification Option
- B.S. in Computer Science, Information Processing Option
- B.S. in Computer Science, Technology Option
- B.A. in Earth Science, General Option
- B.A. in Earth Science, Geology Option
- B.A. in Earth Science, Meteorology Option
- B.A. in Earth Science, Teacher Certification Option
- Health Professions:
  - B.S. in Medical Record Administration
  - B.S. in Medical Technology
  - B.S. in Medical Technology, Cytotechnology Option
  - B.S. in Medical Technology, Histotechnology Option
  - B.S. in Nursing
  - B.S. in Occupational Therapy
  - B.S. in Physical Therapy
- B.A. in Mathematical Sciences
- B.A. in Mathematical Sciences, Teacher Certification Option

## Faculty

### BIOLOGICAL SCIENCES

Faculty: Bardell, Butler, Hayat, Hennings, Kmetz, Linden, Madison, Mahoney, Mancarella, Osborne (Chairperson), Reid, Rosenthal, Schuhmacher, A. Smith, Virkar

### CHEMISTRY-PHYSICS

Faculty: Bailey, Blount, Criasia (Chairperson), Dorn, Getzin, Kampa, Leeds, Lees, Luther, Saba, Silano, Struyk, Vitale, Wieck

### GEOLOGY AND METEOROLOGY

Faculty: Hall, Krall, Kroll, Meyerson (Chairperson), Murphy, Rockman, Zois

### MATHEMATICS AND COMPUTER SCIENCE

Faculty: Abeles, Arnow, Bernstein, Butcher, Cinque, Deavours, Giegerich, Goldberg (Chairperson), Gordon, Hahn, Hothersall, Krantz, Lehmann, J. Levine, Lipson, Malbrock, Marchand, Piegari, Rabinowitz, Ray, Santomauro, Thornton, Watkins, Woubneh, Zoll

### MEDICAL RECORD ADMINISTRATION

Faculty: Pizzulli, Sheffield, Weber (Chairperson)

### MEDICAL TECHNOLOGY

Coordinator: J.M. Kmetz

### NURSING

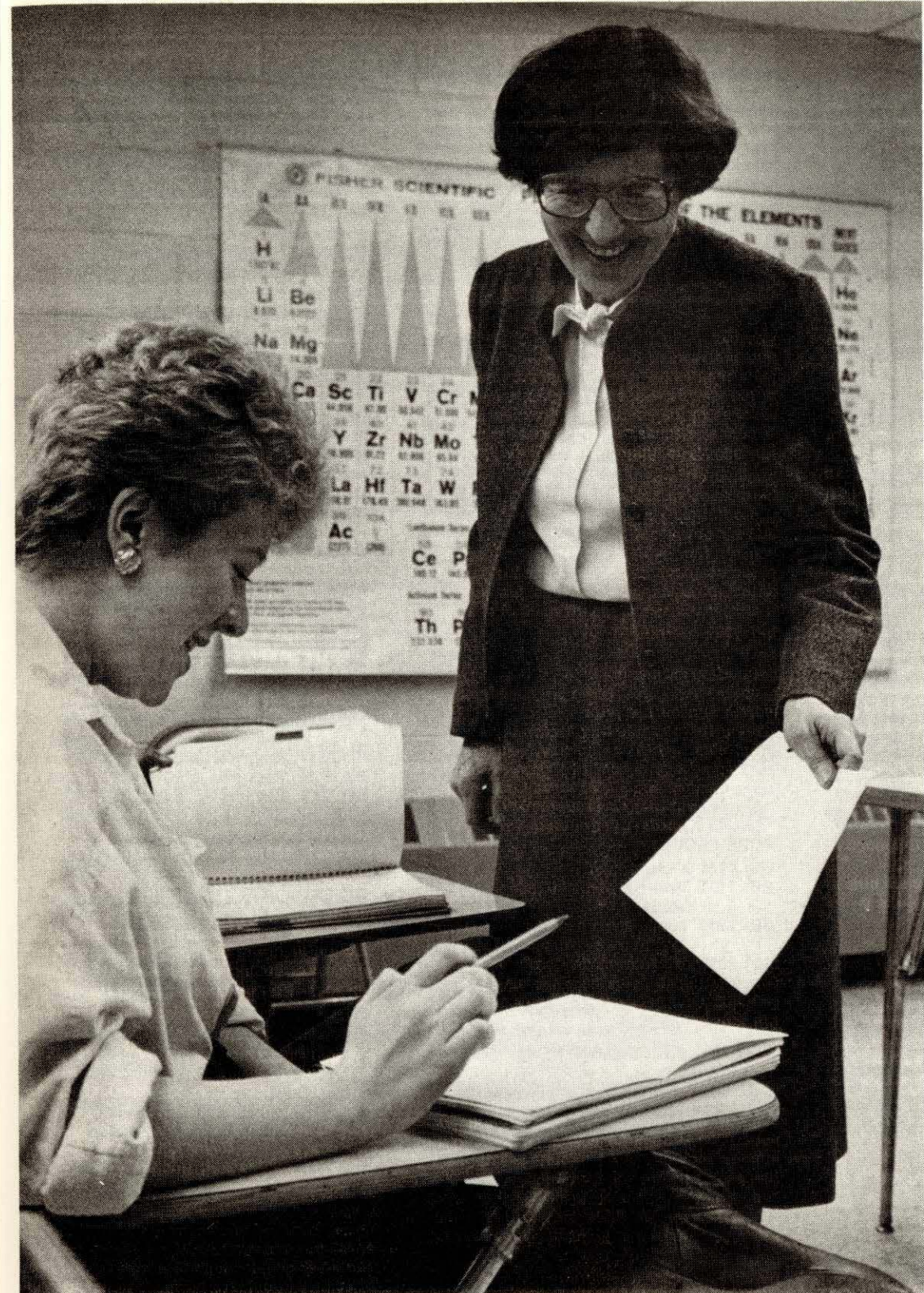
Faculty: Fitzsimons (Chairperson), Howard, Neville, Salmond, Warren

### OCCUPATIONAL THERAPY

Faculty: Kramer (Chairperson), Glasser, Oyer, Poole, Richard

### PHYSICAL THERAPY

Faculty: LeGuin (Coordinator), Glasser, Kirsch, Merians, Wollins



**Option: Preprofessional**

Chairperson: Dr. Frank Osborne  
C123 Ext. 2012

The preprofessional program in biology is designed to prepare the student for graduate study in various fields of biology, medicine, dentistry, chiropractic medicine, veterinary medicine and for positions in industry related to the biological sciences. The student should consult with his/her preprofessional advisor to select appropriate electives for the respective area of interest.

**GENERAL EDUCATION 52-53**

**CORE REQUIREMENTS 19**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Che 1083	Chemistry I	4

**BREADTH REQUIREMENTS 33-34**

*Humanities 12*  
Select from at least three of the following five areas:

- \*\*English (2000 level literature or drama) or Speech/Theatre/Media
- Foreign Languages
- †Fine Arts or Art History
- †Music
- Philosophy or Religion

*Social and Behavioral Sciences 12*  
(courses must be selected from at least three disciplines)

- Economics or Geography
- History
- Political Science
- Psychology
- Sociology or Anthropology

*Biological and Physical Sciences 4*

Che 1084	Chemistry II	4
<i>Mathematical Sciences 3</i>		
Mat 1052	College Algebra and Trigonometry	3

*Health and Physical Education 2-3*  
Health Education  
Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**MAJOR REQUIREMENTS 53**

*Required Courses in Biology 24*

Bio 1000	Principles of Biology	4
Bio 2200	Cell Biology	4
Bio 2500	Principles of Botany	4
Bio 3414	The Invertebrates—Form and Function or	
Bio 3425	The Vertebrates—Form and Function	4
Bio 3614	Principles of Ecology	4
Bio 3704	Principles of Genetics	3
Bio 4905	Seminar in Biology I	1

*Major Electives 8*

8 s.h. taken at the 3000-4000 level, selected with departmental advisement

*Supporting Courses in Related Disciplines 21*

Che 3181	Org. Chem. Lec. I	3
Che 3182	Org. Chem. Lec. II	3
Che 3183	Org. Chem. Lab. I	2
Che 3184	Org. Chem. Lab. II	2
Mat 2411	Calculus I	3
Phy 2091	General Physics I	4
Phy 2092	General Physics II	4

**FREE ELECTIVES 18-19**

TOTAL 124

**Option: Teacher Certification**

The following program meets the standards for state approval of teacher education in Biology, K-12.

**GENERAL EDUCATION 59**

**CORE REQUIREMENTS 19**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Che 1083	Chemistry I	4

**BREADTH REQUIREMENTS 40**

*Humanities 9*

STM 1900 Speech Communications  
Select two courses from the disciplines listed below. Both courses may not be from the same discipline.

- †Fine Arts or Art History
- Foreign Languages
- †Music
- Philosophy or Religion

*Social and Behavioral Sciences 9*

Psy 1000	General Psychology	3
Psy 2110	Adolescent Psychology	3
Select one of the following:		
Soc 1000	Social Life & Society	
Ant 1800	Cultural Anthropology	

*Physical and Biological Sciences 4*

Che 1084	Chemistry II	4
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*Mathematical Sciences 3*

Mat 1052	College Algebra and Trigonometry	3
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*Health and Physical Education 4*

ID 1225	Issues/Values Contemp. Health	3
Physical Education Course		1

†Excluding teaching methods courses

*Additional General Education Courses 11*

Phy 2091-2092	General Physics I & II	8
Select one of the following courses in mathematics:		
Mat 1016	Statistics	3
Mat 1053	Analytic Geometry	3
Mat 2411	Calculus I	3
Mat 2412	Calculus II	3

**ACADEMIC SEQUENCE 36**

*Biology Courses Required for Major in Biology, Preprofessional Option*

Bio 1000	Principles of Biology	4
Bio 2200	Cell Biology	4
Bio 2500	Principles of Botany	4
Bio 3414	The Invertebrates—Form and Function or	
Bio 3425	The Vertebrates—Form and Function	4
Bio 3614	Principles of Ecology	4
Bio 3704	Principles of Genetics	3
Bio 4905	Seminar in Biology	1
Major electives at the 3000/4000 level		8

*Supporting Course in Chemistry*  
Che 2180 Principles of Org. Chem. 4

**BEHAVIORAL SCIENCES 6**

ID 3201	Educational Psychology	3
ID 2200	Teacher, School & Society	3

**PROFESSIONAL EDUCATION 27**

*Sophomore Level*

ICA 2801	Introductory Field Experience for Subject Area Instruction K-12	3
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*Junior Level*

ICA 3230	Introductory to Science Education with Directed Field Observation	6
CS 340-	Reading in Content Areas	2
CS 340-	Advanced Reading Technique	2

*Senior Level*

ICA 4802	Professional Internship for Subject Area Teachers K-12	10
ICA 4230	Science Curriculum & Methodology	4

TOTAL 128

**Option: General**

Chairperson: Dr. Ronald Criasia  
C220 Ext. 2497

This program is designed to prepare the student for graduate study in the various fields of chemistry and for positions in related industries.

**GENERAL EDUCATION 52-53**

**CORE REQUIREMENTS 19**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2095	Physics I	4

**BREADTH REQUIREMENTS 33-34**

*Humanities 12*

Select courses from at least three of the following five areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media

- Foreign Languages
- †Fine Arts or Art History
- †Music
- Philosophy or Religion

*Social and Behavioral Sciences 12*  
(courses must be selected from at least three disciplines)

- Economics or Geography
- History
- Political Science
- Psychology
- Sociology or Anthropology

*Biological and Physical Sciences 4*  
Phy 2096 Physics II 4

*Mathematical Sciences 3*  
#Mat 1052 College Algebra and Trigonometry 3

*Health and Physical Education 2-3*  
Health Education  
Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**COGNATE COURSES 13**

##Mat 2411	Calculus I	3
Mat 2412	Calculus II	3
Mat 3451	Calculus III	3
Phy 2098	General Physics III	4

**MAJOR REQUIREMENTS 42**

Che 1083	Gen. Chem. I	4
Che 1084	Gen. Chem. II	4
Che 2283	Quant. Analysis	4
Che 2491	Inorganic Chem.	3
Che 3181	Org. Chem. Lec. I	3
Che 3182	Org. Chem. Lec. II	3
Che 3183	Org. Chem. Lab I	2
Che 3184	Org. Chem. Lab II	2
Che 3284	Instrumental Analysis	4
Che 3381	Physical Chem. Lec. I	3
Che 3382	Physical Chem. Lec. II	3
Che 3383	Physical Chem. Lab I	2
Che 3384	Physical Chem. Lab II	2
Che 4481	Adv. Inorganic Chem.	3

**FREE ELECTIVES 16-17**

TOTAL 124

#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.  
##Not required if an equivalent course has been completed at the high school level. In that case, the student may enter Mat 2412 directly and take an additional free elective course.

**Option: Preprofessional**

The following program is designed for students planning to apply to medical or dental schools. Since many medical schools prefer a core of courses in the humanities, students are advised to consult the catalogs of medical schools to which they will apply and to select courses with departmental advisement which will insure meeting entrance requirements.

**GENERAL EDUCATION 52-53**

**CORE REQUIREMENTS 19**

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Bio 1000	Principles of Bio.	4

**BREADTH REQUIREMENTS 33-34**

*Humanities 12*

Select from at least three of the following five areas:

- \*\*English (2000 level literature or drama) or Speech/Theatre/Media
- Foreign Languages
- †Fine Arts or Art History
- †Music
- Philosophy or Religion

*Social and Behavioral Sciences 12*  
(courses must be selected from at least three disciplines)

- Economics or Geography
- History
- Political Science
- Psychology
- Sociology or Anthropology
- Biological and Physical Sciences 4*
- Bio 2200 Cell Biology 4
- Mathematical Sciences 3*
- #Mat 1052 College Algebra and Trigonometry 3
- Health and Physical Education 2-3*
- Health Education
- Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**COGNATE COURSES 9**

##Mat 2411	Calculus I	3
Mat 2412	Calculus II	3
Mat 3451	Calculus III	3

**MAJOR REQUIREMENTS 45**

*Courses in Chemistry 29*

Che 1083	Gen. Chem. I	4
Che 1084	Gen. Chem. II	4
Che 2283	Quant. Analysis	4
Che 3181	Org. Chem. Lec. I	3
Che 3182	Org. Chem. Lec. II	3
Che 3183	Org. Chem. Lab I	2
Che 3184	Org. Chem. Lab II	2
Che 3284	Instrumental Analysis	4
Che 3381	Phys. Chem. Lec. I	3

*Supporting Courses in Related Disciplines 16*

Phy 2095	Physics I	4
Phy 2096	Physics II	4
Phy 2098	General Physics III	4
Bio 4105	Essentials of Biochemistry	4

**FREE ELECTIVES 17-18**

TOTAL 124

#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take an additional three credits in free electives.

##Not required if an equivalent course has been completed at the high school level. In that case, the student may enter Mat 2412 directly and take an additional free elective course.

Option: Expanded  
(ACS Certified)

For students who plan to enter professional careers immediately after graduation or who plan to undertake graduate study, the American Chemical Society (ACS) requires a curriculum for professional training that includes a series of advanced courses. The curriculum for this option is based upon the ACS guidelines. Students completing this program are certified by the ACS and may become members of the ACS immediately upon graduation. Students desiring to complete the expanded option should consult the department chairperson.

## GENERAL EDUCATION 52-53

## CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2095	Physics I	4

## BREADTH REQUIREMENTS 33-34

*Humanities 12*  
Select courses from at least three areas of the following five areas:

\*\*English (2000 level literature or drama) or Speech/Theatre/Media

Foreign Languages  
†Fine Arts or Art History  
†Music

Philosophy or Religion

*Social and Behavioral Sciences 12*  
(courses must be selected from at least three disciplines)

Economics or Geography  
History

Political Science

Psychology

Sociology or Anthropology

*Biological and Physical Sciences 4*

Phy 2096 Physics II 4

*Mathematical Sciences 3*

#Mat 1052 College Algebra and Trigonometry 3

*Health and Physical Education 2-3*

Health Education

Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the humanities requirement

†Excluding teaching methods courses

This program is designed for students who wish to obtain a strong background in Physics in order to pursue graduate studies and to prepare them for careers in related fields.

## GENERAL EDUCATION 52-53

## CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Che 1083	Chemistry I	4

## BREADTH REQUIREMENTS 33-34

*Humanities 12*

Select courses from at least three of the following five areas:

\*\*English (2000 level literature or drama) or Speech/Theatre/Media

Foreign Languages  
†Fine Arts or Art History

†Music  
Philosophy or Religion

## COGNATE COURSES 13

##Mat 2411	Calculus I	3
Mat 2412	Calculus II	3
Mat 3451	Calculus III	3
Phy 2098	General Physics III	4

## MAJOR REQUIREMENTS 51

Che 1083	Gen. Chemistry I	4
Che 1084	Gen. Chemistry II	4
Che 2283	Quant. Analysis	4
Che 2491	Inorganic Chem.	3
Che 3181	Org. Chem. Lec. I	3
Che 3182	Org. Chem. Lec. II	3
Che 3183	Org. Chem. Lab. I	2
Che 3184	Org. Chem. Lab. II	2
Che 3284	Instrumental Anal.	4
Che 3381	Phy. Chem. Lec. I	3
Che 3382	Phy. Chem. Lab. I	3
Che 3383	Phy. Chem. Lab. II	2
Che 3384	Phy. Chem. Lab. III	2
Che 4481	Adv. Inorg. Chem.	3
4000 level Chem. lab course		3
Two 4000 level lecture courses		6

in Chem., Physics, Math, or Earth Sci.

## FREE ELECTIVES 11-12

## TOTAL 128

#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.

##Not required if an equivalent course has been completed at the high school level. In that case, the student may enter Mat 2412 directly and take an additional free elective.

*Social and Behavioral Sciences 12*  
(courses must be selected from at least three disciplines)

Economics, Geography  
History

Political Science

Psychology

Sociology, Anthropology

*Biological and Physical Sciences 4*

Che 1084 Chemistry I 4

*Mathematical Sciences 3*

#Mat 1052 College Algebra and Trigonometry 3

*Health and Physical Education 2-3*

Health Education

Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

## COGNATE COURSES 9

##Mat 2411	Calculus I	3
Mat 2412	Calculus II	3
Mat 3451	Calculus III	3

## MAJOR REQUIREMENTS 40

*Required Courses 32*

Phy 2095-2096	Physics I & II	8
Phy 2098	General Physics III	4
Che 3381-3382	Physical Chemistry I & II	6
Che 3383	Physical Chemistry Laboratory and Recitation I	2
Phy 3191	Mechanics	4
Phy 3392	Magnetism and Electricity	4
Phy 4592	Modern Physics	4

*Major Electives 8*

Select 8 s.h. of upper division courses in Chemistry or Physics

## FREE ELECTIVES 22-23

## TOTAL 124

#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.

##Not required if an equivalent course has been completed at the high school level. In that case, the student may enter Mat 2412 directly and take an additional three credits in free electives.

Coordinator: Prof. Dennis Santomauro  
CSS Ext. 2666

The courses of instruction in computer science are designed to provide for a major program with various emphasis so that a student may select a background for the options of Information Processing and Technology.

Option: Information  
Processing

Information processing, related to business, economics and/or management science.

## GENERAL EDUCATION 51-52

## CORE REQUIREMENTS 18

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
*GE 2400	Science and Technology in the Modern World	3

## BREADTH REQUIREMENTS 33-34

*Humanities 12*

Select from at least three of the following five areas:

\*\*English (2000 level literature or drama) or Speech/Theatre/Media

Foreign Languages  
†Fine Arts or Art History

†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*  
(courses must be selected from at least three disciplines)

Economics or Geography  
History

Political Science

Psychology

Sociology or Anthropology

*Biological and Physical Sciences 4*

Astronomy Geology

Biology Meteorology

Chemistry Physics

*Mathematical Sciences 3*

††CpS 1031 Comp. Arith. Alg. 3

*Health and Physical Education 2-3*

Health Education

Physical Education

\*A Science course may be substituted for this Core Course

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

## COGNATE COURSES 12

#Mat 1052	College Algebra and Trigonometry	3
MgS 2030	Bus. Org. & Mgmt.	3
MgS 3310	Mgt. of Corp. Fin. I	3
Acc 2200	Prin. of Acct. I	3

## MAJOR REQUIREMENTS 54

*Core Requirements 15*

CpS 2341	Comp. Org. & Prog. Lang.	3
CpS 2342	Dynamic Programming Techniques	3
CpS 2390	Computer Assembly Lang.	3
CpS 2440	Data Structures	3
CpS 3250	Computer Operating Systems	3

*Concentration Requirements 15*

CpS 2351	Business Orient. Prog. Tech. I	3
CpS 2352	Business Orient. Prog. Tech. II	3
CpS 3962	Computer Based Accounting Systems	3
CpS 4760	Large-Scale Inf. Proc. Systems	3
##CpS 4---	Data Base Mgt. Systems	3

*Major Electives 9*

Three additional courses in Computer Science, selected with approval of departmental advisor

*Supporting Courses in Related Disciplines 15*

Mat 2026	Stat. Decision Theory	3
Mat 2110	Discrete Structures	3
Mat 2411	Calculus I	3
Mat 2995	Matrix & Linear Algebra	3

Select one course from among the following three:

Acc 2210	Principles of Account. II	3
MgS 3410	Basic Marketing	3
MgS 3040	Management Inform. Systems	3

## FREE ELECTIVES 6-7

## TOTAL 124

††Students who have had prior programming experience may enter CpS 2341 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.

#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. These students may substitute another free elective course for the cognate requirement.

##Course under development.

**B.S. IN COMPUTER SCIENCE**

**Option: Technology**

Technology related to physics, electronics and/or mathematics with investigations related to computer architecture; mathematics with computer applications; graduate studies in computer science.

**GENERAL EDUCATION 52-53**

**CORE REQUIREMENTS 19**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3

The first semester in a two semester sequence in a physical science. Physics is recommended. 4

**BREADTH REQUIREMENTS 33-34**

**Humanities 12**  
Select courses from at least three of the following five areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media Foreign Languages  
†Fine Arts, Art History  
†Music  
Philosophy or Religion

**Social and Behavioral Sciences 12**  
(courses must be selected from at least three disciplines)  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology  
**Biology and Physical Sciences 4**  
Must be fulfilled with second semester of two-semester sequence in a physical science; physics is recommended.

**Mathematical Sciences 3**  
††CpS 1031 Computer Arithmetic Algorithms 3  
**Health and Physical Education 2-3**  
Health Education  
Physical Education  
\*\*Only one course may be used from English and STM toward the humanities requirement  
†Excluding teaching methods courses

**COGNATE COURSES 11**

- #Mat 1052 College Algebra & Trigonometry 3
- IS 2501 Circuit Analysis I 4
- IS 2502 Circuit Analysis II 4

**MAJOR REQUIREMENTS 63**

- Core Requirements 15**
- CpS 2341 Comp. Org. & Prog. Lang. 3
  - CpS 2342 Dynamic Programming Techniques 3
  - CpS 2390 Computer Assembler Language 3
  - CpS 2440 Data Structures 3
  - CpS 3250 Computer Operating Systems 3
- Concentration Requirements 15**
- CpS 2373 Scientific Programming 3
  - CpS 3310 Computer Programming Languages 3
  - CpS 4130 Data Communication Systems 3
  - CpS 4200 Systems Programming 3
  - ##CpS ---- Computer Architecture 3

**Major Electives 9**  
Three additional courses in Computer Science, selected with approval of departmental advisor

**Supporting Courses 24**

- IS 4505 Digital Circuit Concepts 3
- IS 4509 Microprocessor Theory & Application 3
- Mat 2026 Stat. Decision Making 3
- Mat 2110 Discrete Structures 3
- Mat 2411 Calculus I 3
- Mat 2412 Calculus II 3
- Two courses from among those listed below: 6
- Mat 2995 Mat 3155 Mat 3225 Mat 3247
- Mat 3248 Mat 3455 Mat 3544 Mat 3570
- Mat 3940 Mat 4404 Mat 4545 Mat 4800

**FREE ELECTIVES 5-6**

**TOTAL 132**  
††Students who have had prior programming experience may enter CpS 2341 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.  
#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. These students may substitute another free elective course for the cognate requirement.  
##Course under development.

**NOTE CONCERNING COURSE NUMBERS IN COMPUTER SCIENCE**

The numbers for all courses in computer science recently have been changed. In this *Catalog*, the *new* numbers appear for all courses. A list showing the new numbers and the former numbers is provided below.

New Number	Title	Former Number
CpS 1031	Computer Arithmetic Algorithms	CpS 1931
CpS 1032	Electronic Data Processing	CpS 1932
CpS 2341	Computer Org. and Programming	CpS 1941
CpS 1248	Computer Based Business Systems	CpS 1948
CpS 1958	Computer Based Health Systems	CpS 1958
CpS 2679	Combinatorics	CpS 1979
CpS 2351	Bus. Oriented Prog. Tech. I	CpS 2931
CpS 2352	Bus. Oriented Prog. Tech. II	CpS 3932
CpS 2342	Dynamic Programming Techniques	CpS 2942
CpS 2390	Computer Assembly Language	CpS 2990
CpS 2383	Computer Programming I	CpS 2993
CpS 2384	Computer Programming II	CpS 3994
CpS 2440	Data Structures	CpS 4940
CpS 3100	Digital Computer Circuitry Principles	CpS 3900
CpS 3250	Computer Operating Systems	CpS 4950
CpS 3310	Computer Programming Language	CpS 4910
CpS 3391	Adv. Assembly Language Prog.	CpS 4991
CpS 3465	Problem Analysis & Solutions	CpS 4965
CpS 3498	Computer Security & Inf. Theory	CpS 3998
CpS 3962	Computer Based Accounting Systems	CpS 3962
CpS 4130	Data Communication System	CpS 4930
CpS 4200	Elements of Systems Programming	CpS 4900
CpS 4220	Compiler Construction	CpS 4920
CpS 4760	Large-Scale Information Processing Systems	CpS 4960
CpS 4980, 81, 82,	Special Topics	CpS 4980

**B.A. IN EARTH SCIENCE**

Chairperson: Dr. A. Lee Meyerson  
C323A Ext. 2064

Our programs are designed to prepare the student for graduate study in various areas of geology, meteorology, oceanography, and environmental science as well as for positions in industries related to the earth sciences.

Excellent collateral studies in geoscience technology, environmental studies and marine sciences may be elected with the Earth Science major.

**Option: General**

The following program is designed for students wishing a broad background in the earth sciences. This option covers the spectrum of earth science with emphasis on subjects which are environmentally important.

**GENERAL EDUCATION 52-53**

**CORE REQUIREMENTS 19**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- Che 1083 Chemistry I or  
Phy 2091 General Physics I 4

**BREADTH REQUIREMENTS 33-34**

**Humanities 12**  
Select courses from at least three of the following five areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media Foreign Languages  
†Fine Arts or Art History  
†Music  
Philosophy or Religion

**Social and Behavioral Sciences 12**  
(courses must be selected from at least three disciplines)  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology  
**Biological and Physical Sciences 4**  
Che 1084 Chemistry II or  
Phy 2092 General Physics II 4

**Mathematical Sciences 3**  
Mat 1052 College Algebra & Trigonometry 3

**Health and Physical Education 2-3**  
Health Education  
Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the humanities requirement  
†Excluding teaching methods courses

**COGNATE COURSES 3**

One of the following courses:  
Mat 1053, Mat 2411, or Mat 2412

**MAJOR REQUIREMENTS 31**

- Required Courses**
- Ast 1100 Introduction to Astronomy 4
  - Geol 1200 Introduction to Geology 4
  - Met 1300 Introduction to Meteorology 4
  - Met 2300 Climatology 3
  - Geol 3266 Hydrology 4
  - Oce 3453 Introduction to Oceanography 4
  - ES 4953-4954 Earth Science Seminar I & II or  
ES 4963-4964 Honors Research Seminar in Earth Science I & II 4

One of the following courses:  
Geol 3261, Geol 3263  
Geol 3264, Geol 3265

**FREE ELECTIVES 37-38**

**TOTAL 124**  
#Students whose mathematical background includes the equivalent of Mat 1052 may substitute Mat 1053 or Mat 2411 to fulfill this requirement. These students then may take an additional three credits of free electives rather than a cognate course.

**Option: Geology**

This program is for students who plan to become professional geologists. The curriculum meets the requirements of the American Institute of Professional Geologists and prepares students for both immediate employment and graduate study.

**GENERAL EDUCATION 52-53**

**CORE REQUIREMENTS 19**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- Phy 2091 General Physics I 4

**BREADTH REQUIREMENTS 33-34**

**Humanities 12**  
Select courses from at least three of the following five areas:  
\*\*English (2000 level literature or drama) or Speech/Theatre/Media Foreign Languages  
†Fine Arts or Art History  
†Music  
Philosophy or Religion

**Social and Behavioral Sciences 12**  
(courses must be selected from at least three disciplines)  
Economics or Geography  
History  
Political Science  
Psychology  
Sociology or Anthropology

**Biological and Physical Sciences 4**  
Phy 2092 Physics II 4  
**Mathematical Sciences 3**  
#Mat 1052 College Algebra and Trigonometry

**Health and Physical Education 2-3**  
Health Education  
Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement  
†Excluding teaching methods courses

**COGNATE COURSES 11**

- Che 1083-1084 Chemistry I & II 8
- ##Mat 2411 Calculus I 3

**MAJOR REQUIREMENTS 44**

- Supporting Course 4**
- Ast 1100 Introduction to Astronomy or  
Met 1300 Introduction to Meteorology 4
- Required Courses 28**
- Geol 1200 Introduction to Geology 4
  - Geol 3261 Mineralogy 4
  - Geol 3263 Structural Geology 4
  - Geol 3264 Invertebrate Paleontology 4
  - Geol 3281 Field Geology 2
  - Geol 4252 Field Geology II 2
  - Geol 4265 Petrology 4
  - ES 4953-4954 Earth Science Seminar I & II or  
ES 4963-4964 Honors Research Seminar in Earth Science I & II 4

**Major Electives 12**  
Courses selected with departmental advisement

**FREE ELECTIVES 16-17**

**TOTAL 124**  
#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.  
##Students who substitute Mat 2411 for Mat 1052 in the General Education requirements may fulfill the cognate requirements with 8 credits.



## B.A. IN EARTH SCIENCE

### Option: Meteorology

This program is for students who plan to become professional meteorologists. The curriculum meets the requirements of the National Weather Service for professional meteorologists and prepares students for both immediate employment and graduate study.

### GENERAL EDUCATION 52-53

#### CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2091	General Physics I	4

#### BREADTH REQUIREMENTS 33-34

*Humanities 12*  
Select courses from at least three of the following five areas:

\*\*English (2000 level literature or drama) or Speech/Theatre/Media

Foreign Languages  
†Fine Arts or Art History  
†Music  
Philosophy or Religion

*Social and Behavioral Sciences 12*

(courses must be selected from at least three disciplines)

Economics or Geography

History

Political Science

Psychology

Sociology or Anthropology

*Biological and Physical Sciences 4*

Phy 2092 General Physics II 4

*Mathematical Sciences 3*

#Mat 1052 College Algebra and Trigonometry 3

*Health and Physical Education 2-3*

Health Education

Physical Education

\*\*Only one course may be used from English and Speech/Theatre/Media toward the Humanities Requirement

†Excluding teaching methods courses

### COGNATE COURSES 12

##Mat 2411 Calculus I 3  
Mat 2412 Calculus II 3

Two courses in Computer Science selected with departmental advisement 6

### MAJOR REQUIREMENTS 44

#### Supporting Course 4

Ast 1100 Introduction to Astronomy or  
Geol 1200 Introduction to Geology 4

#### Required Major Courses 30

Met 1300 Introduction to Meteorology 4  
Met 3370 Atmospheric Dynamics 4  
Met 3371 Atmospheric Thermodynamics 4  
Met 3372 Physical Meteorology 3  
Met 4351 Synoptic Meteorology I 4  
Met 4352 Synoptic Meteorology II 4  
Met 4370 Advanced Atmospheric Dynamics 3

ES 4953 4954 Earth Science Seminar I & II or

ES 4963 4964 Honors Research Seminar in Earth Science I & II 4

#### Major Electives 10

Courses selected with departmental advisement from offerings in meteorology, oceanography, and hydrology

### FREE ELECTIVES 15-16

#### TOTAL 124

#Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.

##Students who take Mat 2411 as a General Education requirement may fulfill the Cognate requirements with 9 credits.

### Option: Teacher Certification

The following program combines the General Option with the courses necessary for a career in secondary education. This program meets the standards for state approval of teacher education in the Earth Sciences, K-12.

### GENERAL EDUCATION 59

#### CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Tradition	3
GE 2020	Inquiry & Research	3
Eng 2203	Landmarks of World Literature	3
Che 1083	Chemistry I	4

#### BREADTH REQUIREMENTS 40

##### Humanities 9

STM 1900 Speech Communication 3  
Select two courses from the disciplines listed below. Both courses may not be from the same discipline. 6

†Fine Arts or Art History  
Foreign Languages

†Music  
Philosophy or Religion

##### Social/Behavioral Sciences 9

Psy 1000 General Psychology 3  
Psy 2110 Adolescent Psychology 3

Select one of the following: 3

Soc 1000 Social Life & Society

Ant 1800 Cultural Anthropology

*Physical and Biological Sciences 4*

Che 1084 Chemistry II 4

##### Mathematical Sciences 3

#Mat 1052 College Algebra & Trigonometry 3

##### Health and Physical Education 4

ID 1225 Issues/Values Contemp. Health 3

Select one of the following courses: 1

PEd 1101 Beginning Modern Dance

PEd 1103 Beginning Jazz Dance

PEd 1151 Folk and Square Dance

†Excluding teaching methods courses

#### Additional General Education Courses 11

Bio 1000 Principles of Biology 4

Phy 2091 General Physics I 4

Select one of the following courses in mathematics: 3

Mat 1053 Analytic Geometry

Mat 2411 Calculus I

Mat 2412 Calculus II

### ACADEMIC SEQUENCE

#### MAJOR IN EARTH SCIENCE 31

Ast 1100	Introduction to Astronomy	4
Geol 1200	Introduction to Geology	4
Met 1300	Introduction to Meteorology	4
Met 2300	Climatology	3
Geol 3266	Hydrology	4
Oce 3453	Introd. to Oceanography	4
ES 4953	-4954 Earth Science Seminar I and II or	4
ES 4963	-4964 Honors Research Seminar in Earth Science I and II	4

one of the following courses: 4

Geol 3261 Geol 3263

Geol 3264 Geol 3265

### BEHAVIORAL SCIENCES 6

ID 3201	Educational Psychology	3
ID 2200	Teacher, School & Society	3

### PROFESSIONAL EDUCATION 27

#### Sophomore Level

ICA 2801 Introductory Field Experience for Subject Area Instructor K-12 3

#### Junior Level

ICA 3230	Introduction to Science Education with Directed Field Observations	6
CS 340-	Reading in Content Areas	2
CS 340-	Advanced Reading Technique	2

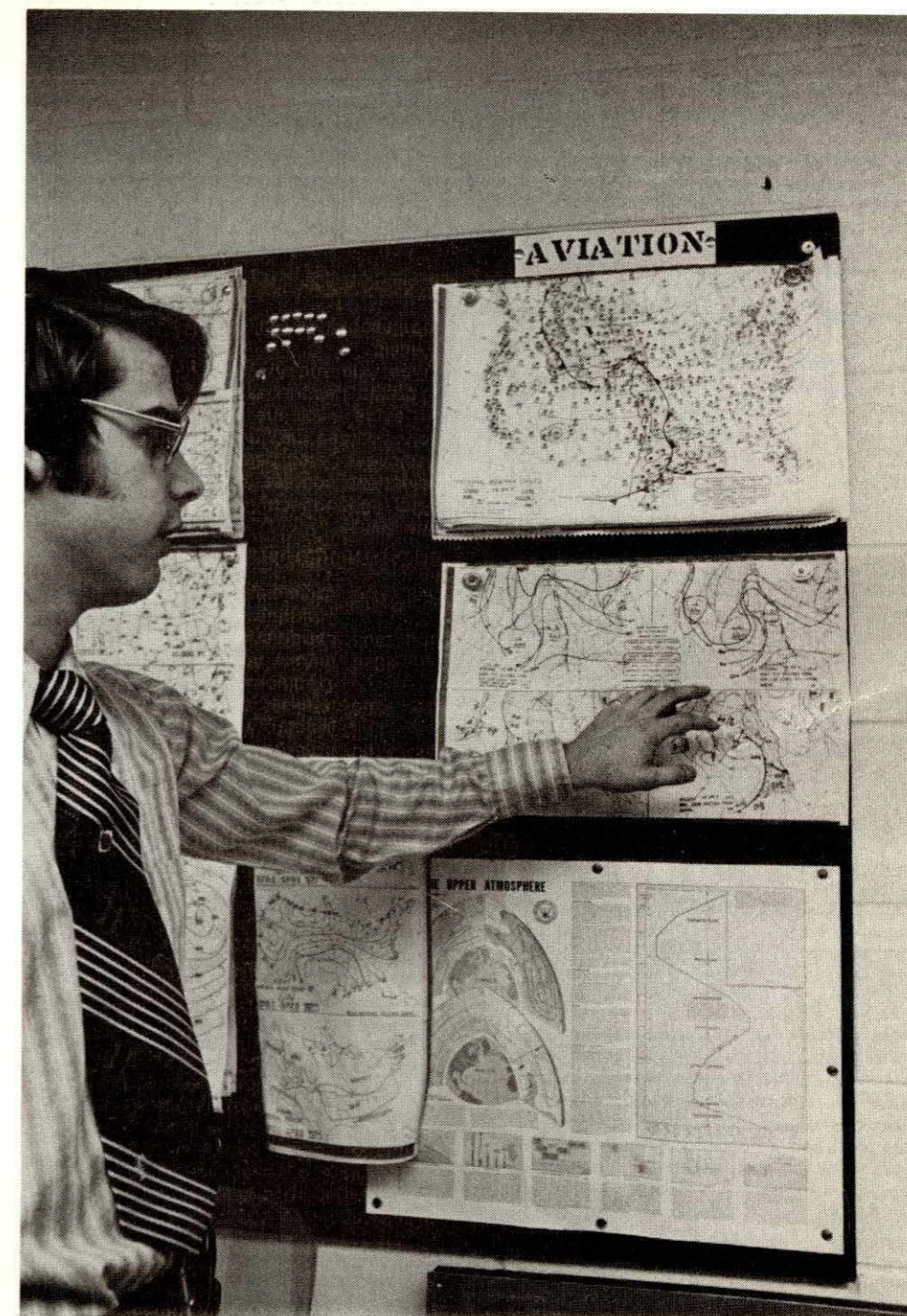
#### Senior Level

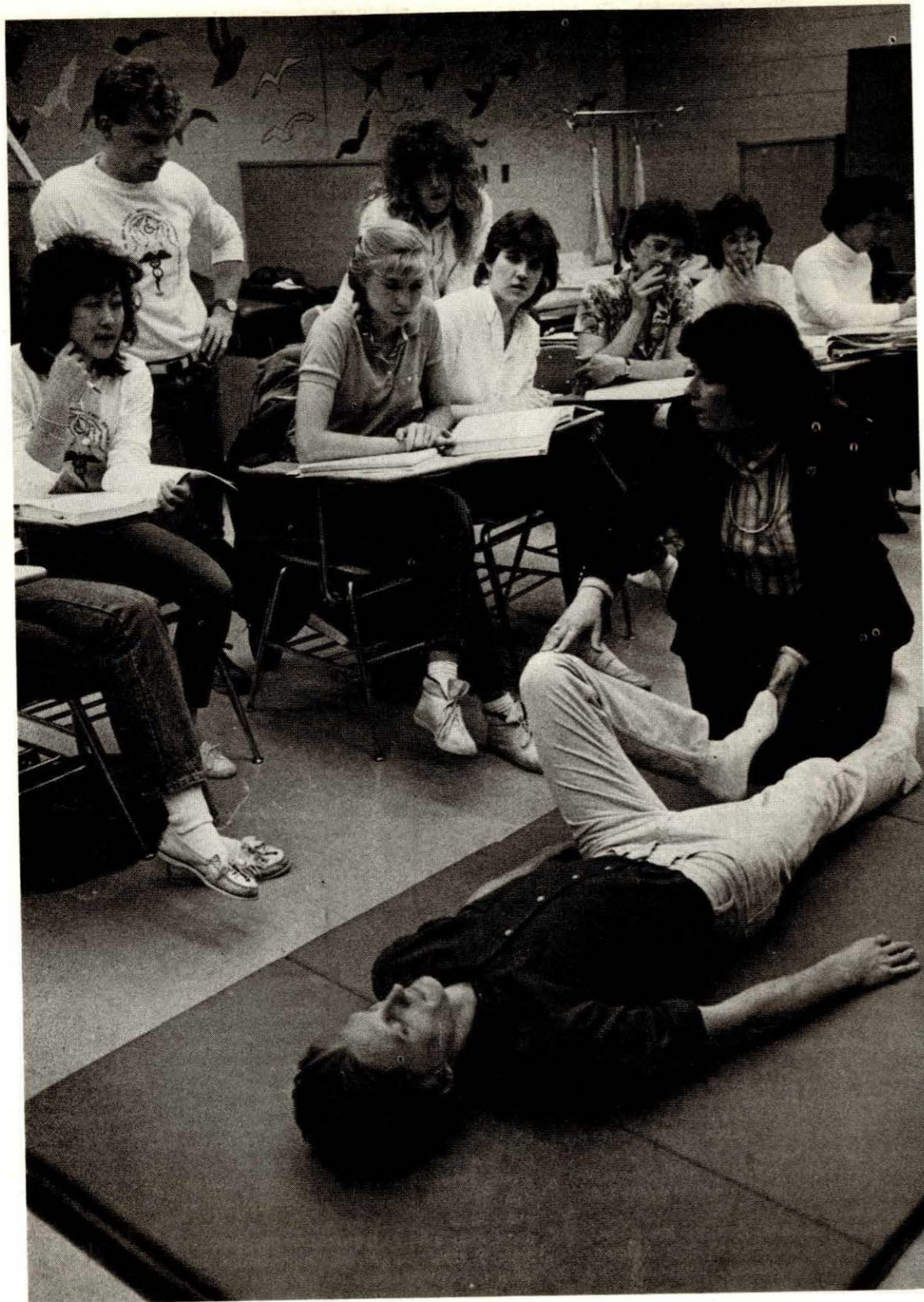
ICA 4802	Professional Internship for Subject Area Teachers K-12	10
ICA 4230	Science Curriculum & Methodology	4

### FREE ELECTIVES 5

#### TOTAL 128

#Students whose mathematical background includes the equivalent of Mat 1052 may substitute Mat 1053 or Mat 2411 to fulfill this requirement





## HEALTH PROFESSIONS

Kean College offers an array of professional programs in allied health and health care. Students with an interest in any of these programs should consult the appropriate program coordinator or the Coordinator of Allied Health Advisement in the Office of Academic Advisement, Career Planning and Placement.

### PREPROFESSIONAL MEDICAL PROGRAMS

**Premedical and Predental** Although admissions requirements are not uniform among schools of medicine and dentistry, the following two programs include the courses required for entrance by most medical and dental schools: Department of Biological Sciences—B.A. in Biology (Preprofessional); Department of Chemistry-Physics—B.A. in Chemistry (Preprofessional). Other major programs may be selected if electives are chosen to fulfill the requirements of the medical or dental school(s) to which the student plans to apply.

Entering or transfer students interested in medical or dental school should consult a member of the Pre-Medical Advisory Committee for advisement. Names of committee members may be secured from the department offices of either Biological Sciences or Chemistry-Physics.

**Other Preprofessional Medical Programs** Students with an interest in veterinary medicine, optometry, pharmacy, or other preprofessional medical programs should consult a member of the Pre-Medical Advisory Committee.

## ALLIED HEALTH PROFESSIONS

Baccalaureate programs are offered in medical technology, with options in cytotechnology and histotechnology; medical record administration; occupational therapy; and physical therapy (the latter a joint program with the University of Medicine and Dentistry of New Jersey—School of Health Related Professions).

All of the programs mentioned above can accommodate entering freshmen and transfer students from two or four-year institutions. The first two (preprofessional) years include general education requirements and basic courses in the sciences, mathematics and social sciences. The final two (professional) years include a sequence of courses and related clinical experiences in the professional area and advanced coursework in supporting disciplines. The curriculum of each program has been designed to enable the graduate to meet the requirements for eligibility for national or state certification. Each program has been accredited by the relevant professional association.

After completing the preprofessional requirements, students must apply for admission to the professional phase of the program. The number of students admitted to each program is limited by the availability of clinical placements, and the admissions process is selective. Students are advised to plan their coursework during the preprofessional two years in such a way that alternate majors are possible should they choose not to continue or should they not be admitted to the program of their choice.

## B.S.N. IN NURSING

This is an upper division program open only to registered nurses. Admission is through a departmental admission process and is competitive.

The B.S.N. in Nursing prepares registered nurses to enter professional practice and to assume new and changing roles as nursing professionals in clinical settings based in a wide range of diverse community and private agencies. The upper division curriculum includes advanced course work in nursing theory, clinical practice and related disciplines. The program accommodates the special needs of the nurse in full-time practice. The upper division course work may be completed in two years of full-time study or up to six years on a part-time basis.

## B.S. IN MEDICAL RECORD ADMINISTRATION

Coordinator: Prof. Louise Weber  
W402B Ext. 3010

The Medical Record Administrator is a member of the health care team and is the professional responsible for management of health information systems consistent with medical, administrative, ethical, and legal requirements.

The Medical Record Administration program is accredited by the Committee on Allied Health, Education and Administration (CAHEA) in cooperation with the Council on Education of the American Medical Record Association (COE-AMRA). Upon satisfactory completion of course requirements, the graduate is eligible to write the national registry examination. A passing grade on the examination establishes the graduate as a Registered Record Administrator (RRA).

For entering freshmen, the program involves two years of preprofessional coursework and two professional years. The professional component includes both didactic and clinical experiences. Transfer students (including Accredited Record Technicians) who meet all prerequisites may apply for admission directly to the professional phase.

The program admits both undergraduate and post-baccalaureate students. The undergraduates must have completed all the preprofessional coursework including program prerequisites and post-baccalaureate candidates must complete prerequisites for admission to the program. A certificate of completion is awarded to post-baccalaureate students who complete the program.

*Admissions Requirements* Please see page 14 of this Catalog. In addition to the general requirements, the MRA program requires:

1. Usually, completion of all preprofessional requirements with a grade of "C" or above.
2. Junior standing (completion of 56 semester hours).
3. An overall grade point average of 2.5 on a 4.0 scale.
4. Typing proficiency. (35 wpm)
5. Submission of a formal application to the Medical Record Administration Program by 31 March immediately preceding the intended Fall Semester enrollment.
6. Three letters of recommendation submitted at the time of application.
7. Transcripts of all previous courses. Students who have attended a foreign college or university are required to submit an official English translation of the academic charts.
8. A completed physical examination which includes current immunizations. The physical examination must be performed within three months immediately prior to enrolling in MRA 3612.

*Admissions and Program Procedures* The Medical Record Administration application form, letters of recommendation, and transcripts for student admission to the program must be submitted by 31 March immediately preceding the intended fall semester enrollment. The class will be selected by 15 May. Transportation to clinical sites is the responsibility of the student. The courses in the professional years are taught in sequence. To continue in the professional curriculum, a student must earn a grade of C or above in each course. No MRA course may be repeated more than once.

### GENERAL EDUCATION 54-55

#### CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Bio 1000	Principles of Biology	4

#### BREADTH REQUIREMENTS 35-36

<i>Humanities 9</i>		
STM 1900	Speech Communication	3
Select two courses from the disciplines listed below.		
Both courses may not be from the same discipline. 6		
Foreign Languages		
†Fine Arts and Art History		
†Music		
Philosophy or Religion		

<i>Social and Behavioral Sciences 9</i>		
Psy 1000	General Psychology	3
Eco 1021	Principles of Economics II	3
One course selected from among the disciplines listed below:		
History		
Political Science		
Sociology or Anthropology		
<i>Biological and Physical Sciences 4</i>		
Bio 2409	Essentials of Human Physiology & Anatomy	4
<i>Mathematical Sciences 3</i>		
Mat 1052	College Algebra and Trigonometry	3
<i>Health and Physical Education 2-3</i>		
<i>General Education Electives 8</i>		
Che 1031	Fund. of General Chem.	4
Che 1032	Fund. of Org. and Biochem.	4
†Excluding teaching methods courses.		

### MAJOR REQUIREMENTS 66

#### Courses in Medical Record Administration 45

MRA 2011	Intro. to Medical Record Profession	1
MRA 2013	Medical Terminology	3
MRA 3111	The Medical Staff	1
MRA 3112	Special Health Records	2
MRA 3114	Develop & Retention of Medical Records	4
MRA 3212	Health Statistics	2
MRA 3314	Classifications, Indexes, & Registries	4
MRA 3413	Fundamentals of Medical Science I	3
MRA 3423	Fundamentals of Medical Science II	3
MRA 3612	Directed Practice I	2
MRA 4113	Legal Aspects of Medical Records	3
MRA 4312	Quality Assurance	2
MRA 4512	In-Service Education in MRD	2
MRA 4514	Organization and Management of MRD	4
MRA 4523	Medical Record Administration Seminar	3
MRA 4612	Directed Practice II	2
MRA 4614	Management Affiliation	4
<i>Supporting Courses in Related Disciplines 21</i>		
Mat 1016	Statistics	3
CpS 1031	Computer Arithmetic Algorithms	3
CpS 1958	Health Information Systems	3
PA 2700	Health Care Systems in U.S.	3
MgS 2031	Health Care Organization and Management	3
MgS 3030	Personnel Management	3
Eng 3090	Business, Professional, and Technical Writing	3

### FREE ELECTIVES 11-12

TOTAL 132

## B.S. IN MEDICAL TECHNOLOGY

Coordinator: Dr. J.M. Kmetz  
C112 Ext. 2463

### Option: General

Students who successfully complete this program are eligible for national certification in medical technology. The program is affiliated with the University of Medicine and Dentistry of New Jersey—School of Health Related Professions and Barnert Memorial Hospital Center, Jersey Shore Medical Center, Monmouth Medical Center, Morristown Memorial Hospital, Muhlenberg Hospital, Orange Memorial Hospital Unit of the Hospital Center at Orange, St. Joseph's Hospital and Medical Center, Mountainside Hospital, St. Peter's Medical Center, Somerset Medical Center, and The Valley Hospital.

The medical technologist is a professional member of the health care team who participates in diagnosis of disease through the use of sophisticated instruments and techniques and trains other laboratory workers. Medical technologists are needed to fill positions in hospitals, clinics and research laboratories.

### GENERAL EDUCATION 54-55

#### CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2091	General Physics I	4

#### BREADTH REQUIREMENTS 35-36

<i>Humanities 9</i>		
Select from three of the following five areas:		
English (2000 level literature or drama) or Speech/Theatre/Media		
Foreign Languages		
†Fine Arts or Art History		
†Music		
Philosophy or Religion		
<i>Social and Behavioral Sciences 9</i>		
(courses must be selected from at least three disciplines)		
Psy 1000	General Psychology	3
Soc 1000	Social Life & Society	3
One course in one of the following disciplines: 3		
Economics, Geography, History, Political Science		

<i>Biological and Physical Sciences 4</i>		
Phy 2092	General Physics II	4
<i>Mathematical Sciences 3</i>		
Mat 1052	College Algebra and Trigonometry	3
<i>Health and Physical Education 2-3</i>		
<i>General Education Electives 8</i>		
Che 1083	Chem I	4
Che 1084	Chem II	4

†Excluding teaching methods courses

### MAJOR REQUIREMENTS 62

Bio 1000	Principles of Biology	4
Che 2180	Principles of Organic Chemistry	4
Bio 2200	Cell Biology	4
Che 2283	Quantitative Analysis	4
Bio 3305	Principles of Microbiology	4
Bio 3403-3404	Anatomy and Physiology I & II	8
Bio 4105	Essentials of Biochemistry	4
ID 4877-4878	Medical Technology Clinical Preceptorship I & II	30

### FREE ELECTIVES 7-8

TOTAL 124



## B.S. IN MEDICAL TECHNOLOGY

### Option: Cytotechnology

The option in cytotechnology leads to both a Bachelor of Science degree and eligibility for national certification in cytotechnology. Cytotechnologists are trained to scan slides of cells from body surfaces and body fluids to detect abnormalities; e.g. cancer, and to report their findings to physicians.

Students attend a cytotechnology educational program for clinical training. The hospital selects the students for training.

### GENERAL EDUCATION 54-55

#### CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2091	General Physics I	4

### BREADTH REQUIREMENTS 35-36

#### Humanities 9

Select from three of the following five areas:

- English (2000 level literature or drama) or Speech/Theatre/Media
- Foreign Languages
- †Fine Arts or Art History
- †Music
- Philosophy or Religion

#### Social and Behavioral Sciences 9

(courses must be selected from at least three disciplines)

- Psy 1000 General Psychology 3
- Soc 1000 Social Life & Society 3
- One course in one of the following disciplines: 3
- Economics, Geography, History, Political Sciences

#### Biological and Physical Sciences 4

Phy 2092 General Physics II 4

#### Mathematical Sciences: 3

Mat 1052 College Algebra and Trigonometry 3

#### Health and Physical Education 2-3

#### General Education Electives 8

- Che 1083 Chem I 4
- Che 1084 Chem II 4

†Excluding teaching methods courses

### MAJOR REQUIREMENTS 65

Bio 1000	Principles of Biology	4
Che 2180	Principles of Organic Chemistry	4
Bio 2200	Cell Biology	4
Bio 3260	Histology	4
Bio 3305	Principles of Microbiology	4
Bio 3403-	3404 Anatomy and Physiology I & II	8
Bio 3704	Principles of Genetics	3
Bio 4105	Essentials of Biochem.	4
ID 4879-	4880 Cytotechnology Clinical Preceptorship I & II	30

### FREE ELECTIVES 4-5

TOTAL 124

## B.S. IN MEDICAL TECHNOLOGY

### Option: Histotechnology

The option in histotechnology leads to both a Bachelor of Science degree and eligibility for national certification in histotechnology. Histotechnologists are trained to process body tissue sections and prepare them for examination by a pathologist. Students attend a histotechnology educational program for clinical training. The hospital selects the students for training.

### GENERAL EDUCATION 54-55

#### CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Phy 2091	General Physics I	4

### BREADTH REQUIREMENTS 35-36

#### Humanities 9

Select from three of the following five areas:

- English (2000 level literature or drama) or Speech/Theatre/Media
- Foreign Languages
- †Fine Arts or Art History
- †Music
- Philosophy or Religion

#### Social and Behavioral Sciences 9

(courses must be selected from at least three disciplines)

- Psy 1000 General Psych. 3
- Soc 1000 Social Life & Society 3
- One course in one of the following disciplines: 3
- Economics, Geography, History, Political Science

#### Biological and Physical Sciences 4

Phy 2092 General Physics II 4

#### Mathematical Sciences 3

Mat 1052 College Algebra and Trigonometry 3

#### Health and Physical Education 2-3

#### General Education Electives 8

- Che 1083 Chem I 4
- Che 1084 Chem II 4

†Excluding teaching methods

### MAJOR REQUIREMENTS 66

Bio 1000	Principles of Biology	4
Che 2180	Principles of Organic Chemistry	4
Bio 2200	Cell Biology	4
Bio 3260	Histology	4
Bio 3305	Principles of Microbiology	4
Bio 3403-	3404 Anatomy and Physiology I & II	8
Bio 3815	Microtechniques	4
Bio 4105	Essentials of Biochem.	4
ID 4881-	4882 Histotechnology Clinical Preceptorship I & II	30

### FREE ELECTIVES 3-4

TOTAL 124

## B.S.N. IN NURSING

Coordinator: Dr. Virginia M. Fitzsimons  
K-4 Ext. 2608

The upper division nursing major is open only to registered nurses. Admission is through a departmental admission process and is competitive.

The B.S.N. in Nursing prepares registered nurses to enter professional practice and to assume new and changing roles as nursing professionals in clinical settings based in a wide range of diverse community and private agencies. The upper division curriculum includes advanced course work in nursing theory, clinical practice and related disciplines. The program accommodates the special needs of the nurse in full-time practice. The upper division course work may be completed in two years of full-time study or up to six years on a part-time basis.

**Degree Requirements:** The degree requirements for the Bachelor of Science in Nursing follow. Prerequisites for admission are indicated with an asterisk (\*). These prerequisites, which include specified courses in the biological and social sciences and twenty-two credits in nursing to be granted after successful completion of a validation examination, constitute the only coursework which must be completed prior to admission. Transcripts of registered nurses accepted for the program are evaluated and credit toward the degree is granted for courses already completed in areas other than nursing in accordance with the policies of Kean College for the transfer of credit.

### GENERAL EDUCATION 52-55

#### CORE REQUIREMENTS 19

Eng 1020	Composition	3
GE 1100	Emergence of the Modern World	3
GE 1200	Intellectual and Cultural Traditions	3
GE 2020	Inquiry and Research	3
Eng 2203	Landmarks of World Literature	3
Che 1032	Fund. of Org. and Biochem.	4

### BREADTH REQUIREMENTS 33-36

#### Humanities 9

- Phi 1100 Philosophy 3
- Select two courses from the following areas. Both courses may not be from the same area.
- English (2000 level literature or drama) or Speech/Theatre/Media
- Foreign Languages
- Fine Arts or Art History
- Music

### Social and Behavioral Sciences 9

- One course in General Psychology 3
- One course in General Sociology 3
- One course selected from among the disciplines listed below: 3
- Anthropology
- Political Science
- Geography
- Economics
- History

### Biological and Physical Sciences 4

Che 1031 Fund. of General Chem. 4

### Mathematical Sciences 3

Mat 1016 Statistics 3

### Health and Physical Education 2-3

### General Education Requirements 6-8

Two courses in Anatomy and Physiology 6-8

### MAJOR REQUIREMENTS 72-73

#### Microbiology 3-4

Phy 1001 Principles of Contemporary Physics 3

Soc 2100 Sociology of the Family 3

Psy 3110 Life Span Developmental Psychology 3

Mgs 3030 Personnel Management 3

Phi 3314 Moral Problems in Medicine and Health Care 3

Psy 3630 Social Psychology 3

HEd 3635 Introduction to Public Health 3

### Lower Division Nursing by Validation 22

Nurs 3000 Conceptual Models for Professional Practice in Nursing 3

Nurs 3100 Professional Nursing Practice with the Well Family 5

Nurs 3300 Issues in Professional Practice 3

Nurs 3900 Research in Nursing 3

Nurs 4000 Professional Nursing Practice with the Family in Crisis 5

Nurs 4100 Professional Nursing Practice in Chronic Health Problems 5

Nurs 4900 Independent Practicum in Nursing 2

### FREE ELECTIVES 6-8

TOTAL 132



**B.S. IN OCCUPATIONAL THERAPY**

Chairperson: Prof. Paula Kramer  
W311 Ext. 2590

The Occupational Therapy Program requires four years of academic courses including practicum training plus six months of supervised field experience in hospitals or appropriate clinical settings. A special application and selection process is required for admission. The program is accredited by the Committee on Allied Health Education Accreditation of the American Medical Association and the American Occupational Therapy Association.

**GENERAL EDUCATION 55**

**CORE REQUIREMENTS 19**

- GE 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- Bio 1000 Principles of Biology 4

**BREADTH REQUIREMENTS 36**

- Humanities 9
- FA 3921 Art Media for Occupational Therapists 3
- Select two courses from the disciplines listed below. 6
- Both courses may not be in the same discipline.

- \*\*English (2000 level literature or drama) or Speech/Theatre/Media Foreign Languages
- †Music
- Philosophy or Religion

- Social and Behavioral Sciences 9*
- Psy 1000 General Psychology 3
- Psy 3110 Life Span Developmental Psy 3
- Soc 1000 Social Life and Society 3

- Biological and Physical Sciences 4*
- Bio 2409 Essentials of Human Physiology and Anatomy 4

- Mathematical Sciences 3*
- Mat 1052 College Algebra and Trigonometry 3

- Health and Physical Education 3*
- PEd 3505 Kinesiology 3

- General Education Electives 8*
- Che 1031 Fund. of Gen. Chem. 4
- Che 1032 Fund. of Org. & Biochem. 4

\*\*Only one course may be used from English and STM toward the humanities requirement  
†Excluding teaching methods courses

**COGNATE COURSES 6**

- Psy 3200 Psychological Statistics 3
- Psy 3540 Abnormal Psychology 3

**MAJOR REQUIREMENTS 62**

- Bio 3405 Gross Anatomy 4
- Bio 3406 Neuroscience 4
- FA 3288 Furniture Making or FA 3290 Woodworker's Art 3
- OT 2400 Introd. to Occupational Therapy 3
- OT 3301-3302 Life Tasks and Activities Throughout the Life Span, I & II 4
- OT 3410-3411 Occupational Therapy Theory, I & II 7
- OT 3610 Activity Group Process 3
- OT 3210-3211 Clinical Conditions I & II 7
- OT 4920 Seminar in OT I: Psychosocial Dysfunction 6
- OT 4921 Seminar in OT II: Physical Dysfunction 6
- OT 4922 Seminar in OT III: Developmental Dysfunction 4
- OT 4301 Orthotics, Prosthetics, and Adaptive Equipment 1
- OT 4510 Administration and Supervision 2
- OT 4610 Introduction to Research in Occupational Therapy 2
- OT 4930-4931 Advanced Fieldwork Seminar 6

**FREE ELECTIVES 5**

TOTAL 128



**B.S. IN PHYSICAL THERAPY**

Coordinator: Dr. Katherine LeGuin  
W307 Ext. 2227

Physical Therapy encompasses the study, treatment and prevention of neuromusculoskeletal dysfunctions that may occur as a result of birth, disease, injury, aging or other alterations in a person's capacity to move his/her body. The physical therapist, upon referral of a physician, after assessment of dysfunction, plans, executes and evaluates treatment programs for individuals with conditions known to respond to physical therapy methodologies.

The P.T. program at Kean College is offered jointly with the University of Medicine and Dentistry of New Jersey—School of Health Related Professions. Students who successfully complete all requirements receive a Bachelor of Science degree from Kean College and a certificate from UMDNJ-SHRP. Graduates are expected to demonstrate the competencies essential for entry level physical therapy practitioners as designated by the American Physical Therapy Association which has accredited the program.

**Admission to the Professional Phase** Each year twenty-four full-time students are selected to enter the professional phase of the program. Criteria for applications review by the program's committee on admissions and academic performance include:

Overall cumulative grade point average (GPA) of at least 2.8; grade of at least "C" in all required English composition prerequisites and 3.0 GPA in science and mathematics courses; evidence of direct knowledge of and/or experience in P.T. practice; evidence of extracurricular and/or work experience that demonstrates interpersonal skills.

Those accepted as majors must successfully complete all pre-professional courses by the end of the spring semester prior to the September entering date.

Deadline for application for each fall class is the preceding January for non-Kean students and November for Kean students. Applicants should contact the physical therapy department for specific dates.

**Professional Phase** Courses are taught at Kean College, UMDNJ, and selected clinical facilities. Attendance is required. Further information on standards of performance, transportation to and from class, laboratory and clinical learning experiences, additional expenses, etc. are available in the Office of Physical Therapy, Kean College of New Jersey, Willis Hall, 307C.

**GENERAL EDUCATION 54**

**CORE REQUIREMENTS 19**

- Eng 1020 Composition 3
- GE 1100 Emergence of the Modern World 3
- GE 1200 Intellectual and Cultural Traditions 3
- GE 2020 Inquiry and Research 3
- Eng 2203 Landmarks of World Literature 3
- Che 1031 Fund. of General Chem. 4

**BREADTH REQUIREMENTS 35**

- Humanities 9
- STM 3510 Communications for Allied Health Professionals 3
- Select two courses from the disciplines listed below. 6
- Both courses may not be from the same discipline.
- †Fine Arts or Art History 3
- †Foreign Languages 3
- Music 3
- Philosophy or Religion 3

*Social and Behavioral Sciences 9*  
(courses must be selected from at least three disciplines)

- Economics or Geography 3
- History 3
- Political Science 3
- Psychology 3
- Sociology or Anthropology 3
- Biological and Physical Sciences 4*
- Che 1032 Fund. of Organic and Biochem. 4

- Mathematical Sciences 3*
- #Mat 1052 College Algebra and Trigonometry 3

- Health and Physical Education 3*
- PEd 3510 Physiology of Exercise 3

- General Education Electives 7*
- Bio 1000 Principles of Biology 4
- One course in the mathematical sciences, selected from among those listed below: Mat 1016, CpS 1031, Mat 2411, Mat 2412 3

†Excluding teaching methods courses.

**COGNATE COURSES 12**

- Bio 2409 Essentials of Human Physiology and Anatomy 4
- Phy 2091-2092 General Physics I and II 8

**MAJOR REQUIREMENTS 58**

- Bio 3406 Neuroscience 4
- PT 3000 Dynamics of Physical Therapy Praxis I 6
- PT 3001 Dynamics of Physical Therapy Praxis II 6
- PT 4002 Dynamics of Physical Therapy Praxis III 4
- PT 4003 Dynamics of Physical Therapy Praxis IV 6
- PT 3200 Communities in Health Care 3
- PT 3500 Clinical Medicine I 3
- PT 3501 Clinical Medicine II 3
- PT 3900 Human Gross Anatomy for Physical Therapists 6
- PT 4200 Physical Therapy Praxis in the Health Care Community 3
- PT 4600 Clinical Investigation in Physical Therapy Praxis 3
- PT 4705 Innovations in Physical Therapy Praxis 3
- PT 4710 Scientific Assessment of Human Motion 3
- PT 4800 Physical Therapy Seminar 3
- PT 4900 Directed Study for Physical Therapists 2

**FREE ELECTIVES 8**

#Students whose mathematical background includes the equivalent of Mat 1052 may enter Mat 2411 directly.

TOTAL 132

**B.A. IN MATHEMATICAL SCIENCES**

Chairperson: Dr. Dorothy Goldberg  
C232 Ext. 2104

A major in the mathematical sciences is designed to fulfill several objectives: to develop mathematical reasoning through problem solving; to investigate the mathematical theory which facilitates an understanding of mathematical applications; to provide background for careers in applied mathematics and computer science or teaching of secondary school mathematics; to prepare for graduate studies in the mathematical sciences. These are achieved, with departmental advisement, through the appropriate selection of electives.

**GENERAL EDUCATION 51-52**

- CORE REQUIREMENTS 18**
- Eng 1020 Composition 3
  - GE 1100 Emergence of the Modern World 3
  - GE 1200 Intellectual and Cultural Traditions 3
  - GE 2020 Inquiry and Research 3
  - Eng 2203 Landmarks of World Literature 3
  - \*GE 2400 Science and Technology in the Modern World 3

\*A science course may be substituted for this core course.

**BREADTH REQUIREMENTS 33-34**

- Humanities 12**  
Select from at least three of the following five areas:
- \*\*English (2000 level literature or drama) or Speech/Theatre/Media Foreign Languages
  - †Fine Arts or Art History
  - †Music
  - Philosophy or Religion
  - Social and Behavioral Sciences 12**  
(courses must be selected from at least three disciplines)
  - Economics or Geography
  - History
  - Political Science
  - Psychology
  - Sociology or Anthropology

- Biological and Physical Sciences 4**
- Astronomy Geology
  - Biology Meteorology
  - Chemistry Physics
- Mathematical Sciences 3**  
#Mat 1052 College Algebra & Trigonometry 3
- Health and Physical Education 2-3**  
Health Education  
Physical Education
- \*\*Only one course may be used from English and STM toward the humanities requirement  
†Excluding teaching methods courses

**COGNATE COURSES 9**

- ##CpS 1031 Computer Arithmetic Algorithms 3
- Two additional courses to be selected with departmental advisement from computer science, physics, electronics, economics, or management science 6

**MAJOR REQUIREMENTS 42**

- Required Courses 24**
- Mat 2110 Discrete Structures 3
  - Mat 2411 Calculus I 3
  - Mat 2412 Calculus II 3
  - Mat 2995 Matrix and Linear Algebra 3
  - Mat 3451 Calculus III 3
  - Mat 3452 Calculus IV 3
  - Mat 3455 Differential Equations 3
  - Mat 3544 Probability & Mathematical Statistics 3
- Major Electives 12**  
Four courses at the 3000/4000 level to be selected with departmental advisement
- Supporting Courses in Computer Sciences 6**
- CpS 2341 Computer Org. and Prog. Languages 3
  - CpS 2342 Dynamic Programming Techniques 3

**FREE ELECTIVES 21-22**

- TOTAL 124**
- #Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.
- ##Students who have had prior programming experience may enter CpS 2341 directly. These students may substitute another free elective course for the cognate requirement.

**Option: Teacher Certification**

The following program meets the standards for state approval of teacher education in the mathematical sciences, K-12.

**GENERAL EDUCATION 59**

- CORE REQUIREMENTS 18**
- Eng 1020 Composition 3
  - GE 1100 Emergence of the Modern World 3
  - GE 1200 Intellectual and Cultural Traditions 3
  - GE 2020 Inquiry & Research 3
  - Eng 2203 Landmarks of World Literature 3
  - GE 2400 Science and Technology in the Modern World 3

**BREADTH REQUIREMENTS 41**

- Humanities**
- STM 1900 Speech Communication 3
- Select two courses from the disciplines listed below. Both courses may not be from the same discipline 6
- †Fine Arts or Art History
  - Foreign Languages
  - †Music
  - Philosophy
- Social/Behavioral Sciences 9**
- Psy 1000 General Psychology 3
  - Psy 2110 Adolescent Psychology 3
- Select one of the following: 3
- Soc 1000 Social Life & Society or
  - Ant 1800 Cultural Anthropology

**Physical and Biological Sciences 4**

- Phy 2095 Physics I 4

**Mathematical Sciences**

- #Mat 1052 College Algebra and Trigonometry 3
- Health and Physical Education 4**
- ID 1225 Issues/Values Contemporary Health 3
- Select one of the following courses: 1
- PEd 1101 Beginning Modern Dance
  - PEd 1103 Beginning Jazz Dance
  - PEd 1151 Folk and Square Dance

**Additional General Education Courses 12**

- †Excluding teaching methods courses
- ##CpS 1031 Computer Arithmetic Algorithms 3
- CpS 2341 Computer Org. and Prog. Lang. 3
  - CpS 2342 Dynamic Programming Tech. 3
  - Mat 3342 Euclidean and Non-Euclidean Geometry 3

**B.A. IN MATHEMATICAL SCIENCES**

**ACADEMIC SEQUENCE**

**MAJOR IN MATHEMATICAL SCIENCES 36**

- Requires Courses 27**
- Mat 2110 Discrete Structures 3
  - Mat 2411 Calculus I 3
  - Mat 2412 Calculus II 3
  - Mat 2995 Matrix and Linear Alg. 3
  - Mat 3247 Abstract Algebra I 3
  - Mat 3451 Calculus III 3
  - Mat 3452 Calculus IV 3
  - Mat 3544 Probability & Math. Stat. 3
  - Mat 3455 Differential Equations 3

**Major Electives 6**

- Two courses at the 3000/4000 level to be selected with departmental advisement
- Supporting Course in Related Discipline 3**  
One additional course to be selected from among computer science, physics, electronics, economics, or management science 3

**BEHAVIORAL SCIENCES 6**

- ID 3201 Educational Psychology 3
- ID 2200 Teacher, School & Society 3

**PROFESSIONAL EDUCATION 27**

- Sophomore Level**
- ICA 2801 Introductory Field Exp. for Subj. Area Inst. K-12 3
- Junior Level**
- ICA 3230 Introd. to Science Educ. with Directed Fld. Obs. 6
  - CS 340- Reading in Content Areas 2
  - CS 240- Advanced Reading Tech. 2
- Senior Level**
- ICA 4802 Professional Internship for Subj. Area Teachers K-12 10
  - ICA 4230 Science Curriculum & Methodology 4

- TOTAL 128**
- #Students who have completed the equivalent of this course in high school may enter Mat 2411 directly. In that case, Mat 2411 will be counted as a General Education requirement, and the student may take another three credits in free electives.
- ##Students who have had prior programming experience may enter CpS 2341 directly. These students may substitute another general education elective course for this requirement.

**Minor in Mathematics**

Students desiring a minor in mathematics may fulfill the requirements of a minimum of 18 semester hours, 12 semester hours of which must be at the 2000 level or above. Only Mat 1052 and 1053 may be included on the 1000 level.





# SCHOOL OF NATURAL SCIENCES, NURSING, AND MATHEMATICS

## COURSE DESCRIPTIONS

Biology			
Dr. Frank H. Osborne	C-123	2012	
Chemistry/Physics			
Dr. Ronald Criasia	C-220	2497	
Geology and Meteorology			
Dr. A. Lee Meyerson	C-323A	2064	
Mathematics and Computer Science			
Dr. Dorothy Goldberg	C-232	2104	
Medical Record Administration			
Prof. Louise Weber	W-402B	3010	
Medical Technology			
Dr. J.M. Kmetz	C-112	2463	
Occupational Therapy			
Prof. Paula Kramer	W-311	2590	
Nursing			
Dr. Virginia M. Fitzsimons	K-4	2608	
Physical Therapy			
Dr. Katherine LeGuin	W-307	2227	

## BIOLOGICAL SCIENCES

### Biology Courses

#### General

##### **Bio 1000 Principles of Biology (4)**

The course introduces the student to the nature of living forms, their interdependencies, and their adjustments to their physical environment. The fundamentals of structure and function dealt with in such primary processes as respiration, digestion, circulation, excretion, the control systems, reproduction, heredity and variation of biological form through time. (3 hr. lec./2 hr. lab.)

##### **Bio 2001 Social Implications of Biology (3)**

Consideration of the problems generated by the old and new discoveries in biology for man and society; biological factors of race and races and their social implications; the impact of overpopulation on man, society and environment. *Biology majors may not receive credit for this course.*

Prerequisite: Bio 1000 or permission of instructor.

*Linden*

##### **Bio 3000 Marine Biology (4)**

The interrelations of marine plants and animals with their environment. Topics include: primary production, symbiosis, predation, energy flow, and zonation. Effects of salinity, temperature, light, dissolved oxygen, tides and wave action studied. One weekend field trip required. (3 hr. lec./3 hr. lab.)

*Equivalent given summers at N.J. Marine Sciences Consortium field stations.*

Prerequisites: Che 1084 or equivalent; eight credits in biology or permission of instructor.

*Schuhmacher, Virkar*

##### **Bio 3005 Evolution (3)**

A study of the processes which lead to the formation of new species of animals and plants.

Prerequisites: Bio 1000; Bio 3704 is strongly recommended.

#### Molecular

##### **Bio 4105 Essentials of Biochemistry (4)**

An introduction to the chemistry of biologically important compounds and their relationship to the metabolic activity of living cells. Laboratory activities utilize the methods and techniques currently used in biochemical research. (3 hr. lec./3 hr. lab.)

Prerequisites: One semester of organic chemistry and Bio 2200, or permission of instructor.

*Mancarella*

#### Cellular

##### **Bio 2200 Cell Biology (4)**

A study of the cell as the unit of structure and function of organisms. Emphasis is placed on molecular organization, form and function of cell organelles and cell differentiation. (3 hr. lec./3 hr. lab.)

Prerequisite: Bio 1000 or permission of instructor.

*Hayat, Kmetz*

##### **Bio 3260 Histology (4)**

A laboratory oriented course dealing with the microscopic and ultrastructural anatomy of mammalian tissues and organs, with emphasis on relating structure to function. (3 hr. lec./3 hr. lab.)

Prerequisites: Bio 2200 and one of the following: Bio 2402, 3403 or 3425, or permission of instructor.

*Kmetz*

##### **Bio 4200 Preparatory Techniques for Electron Microscopy (4)**

Biochemical concepts governing the preparation of biological specimens for electron microscopy. Details of the chemistry of the interaction between various reagents and cellular substances. The laboratory covers the preparation of a wide variety of biological specimens and the study of ultrastructure and enzymatic activity.

Prerequisites: Eight hours in biology, Che 2180, and permission of instructor.

*Hayat*

##### **Bio 4225 Cell Physiology (4)**

Biochemical and electron micrographic studies of mammalian tissue subcellular organization by separation and analysis of cell molecules and organelles, and determination of their structure and function. (3 hr. lec./3 hr. lab.)

Prerequisites: Bio 2200 and Che 2180 or 3181 or permission of instructor.

*Smith*

##### **Bio 4245 Radiation Biology (4)**

A study of the fundamentals of radiation biology and the effects of ionizing radiations on macromolecules, the cell, the systems and the organism.

Prerequisites: Bio 3403-3404 and 4105 or permission of instructor.

*Smith*

##### **Bio 4250 Mammalian Endocrinology (4)**

An introduction to the endocrine system and the chemistry and biological functions of hormones. Laboratory activities involve techniques in endocrine research (3 hr. lec./3 hr. lab.)

Prerequisites: Four biology courses and Che 2180 or permission of instructor.

*Rosenthal*

#### Microbiology

##### **Bio 3305 Principles of Microbiology (4)**

A study of microorganisms with emphasis on bacteria. Morphology, physiology and metabolism, ecology, taxonomy and methods of culture and identification of some common microorganisms. (3 hr. lec./3 hr. lab.)

Prerequisite: Bio 2200 or permission of instructor.

*Bardell, Osborne*

##### **Bio 4310 Virology (4)**

An introduction to animal, plant and bacterial viruses and their interaction with the host at the cellular and organismal level. The laboratory includes methods for the detection, identification, quantitation, and propagation of viruses; and techniques for studying the effect of physical and chemical agents on viruses, and the effect of viruses on cell structure and function.

Prerequisites: Bio 2200, 3305 and Che 2180, and permission of instructor.

*Bardell*

##### **Bio 4315 Immunology (4)**

Fundamental consideration of humoral and cellular immunity including the nature and properties of antigens and antibodies, antigen-antibody interactions, structure and biosynthesis of immunoglobulins and immune responses. Consideration also given to plant immunity. (3 hr. lec./3 hr. lab.)

Prerequisites: Bio 3305, and one semester of organic chemistry.

*Bardell*





**Bio 4565 Marine Botany I—Euglenophyta, Chlorophyta and Phaeophyta (2)**

Offered at N.J. Marine Sciences Consortium field stations. Detailed consideration of the functional morphology and evolution of marine algae. Analysis of ecological and physiological adaptations of Euglenoids, Green and Brown Algae. Laboratory and field work designed to encourage individual investigations.

Prerequisites: Eight hours of biology including Bio 2500 or permission of the instructor. Bio 2650 or 3000 recommended.

**Bio 4566 Marine Botany II—Rhodophyta and Marine Fungi (2)**

Offered at the N.J. Marine Sciences Consortium field stations. Detailed consideration of the functional morphology and evolution of marine algae and fungi. Analysis of physiological and ecological adaptations of red algae and marine fungi. Laboratory and field work designed to encourage individual investigations.

Prerequisites: Eight hours of biology including Bio 2500 or permission of instructor. Bio 2650 or 3000 recommended.

**Bio 4570 Plants of the Dunes and Marshes (2)**

Offered summers at N.J. Marine Sciences Consortium field stations. Field and laboratory study of the diversity, adaptations and the ecological role of plants inhabiting sand dunes and marshes of the coastal zone.

Prerequisites: Eight hours of biology including one semester of botany, or permission of the instructor. A course in ecology is recommended.

**Bio 4575 Plant Physiology (4)**

A study of physiological mechanisms involved in the germination, growth, development and reproduction of green plants, including water relations, carbohydrate metabolism, translocation, photosynthesis, mineral nutrition, growth regulators, and growth and development. (3 hr. lec./3 hr. lab.)

Prerequisites: Bio 2200 and Bio 2500.  
*Reid*

**Community—Ecology****Bio 2650 Introduction to Marine Biology (4)**

Offered summers at N.J. Marine Sciences Consortium field stations. A field and laboratory oriented course covering the characteristics of marine plants and animals; instruction and experience in collecting and identifying examples of local marine flora and fauna. Open to all students but may not be applied toward the 32 credit major requirement in biology.

Prerequisite: Bio 1000.

**Bio 3601, 3602 Environment, Ecology and Man (4/3)**

Analysis of the interaction of humans with their environment. Basic principles of ecology, pollution, radiation, endangered species and human population pressures. This course may be taken with laboratory for 4 s.h. or without laboratory for 3 s.h. *Biology majors may not receive credits for this course.*

Prerequisite: Bio 1000 or permission of instructor.

**Bio 3614 Principles of Ecology (4)**

A study of factors affecting the distribution and abundance of organisms. Basic ecology examined at the organismal, population and ecosystem levels. Effects of human activity on the environment introduced. (3 hr. lec./3 hr. lab.)

Prerequisite: Bio 1000 or permission of instructor.

*Mahoney*

**Bio 3635 Principles of Limnology (3)**

A study of the biotic and abiotic factors affecting organisms occupying fresh water environments. Field trips to aquatic habitats.

Prerequisite: Bio 1000, one semester of chemistry, or permission of instructor.

*Hennings*

**Bio 4615 Applied Ecology (4)**

Introduction to a variety of ecological problems and examination of environmental problems and management dealt with by biologists in government and industry. Wildlife and habitat management, pesticide ecology and water pollution biology. Laboratory work centers on biologist's role in gathering data and preparing environmental impact statements. (3 hr. lec./3 hr. lab.)

Prerequisite: Bio 3614 or equivalent.

*Mahoney*

**Bio 4691,2,3,4 Cooperative Education in Ecology (1-4)**

Off-campus work experience in ecology combined with on-campus classes. Students may work part or full time by arrangement with employer.

Prerequisites: Bio 3614, junior standing and permission of instructor.

*Mahoney*

**Genetics****Bio 3704 Principles of Genetics (3)**

A modern approach to understanding the nature and functioning of hereditary material in living organisms. Content includes the biochemistry of genetic material, the physical basis of inheritance, as well as the mode of expression of genetic material in individuals and populations.

Prerequisite: Bio 2200 or permission of instructor.

*Linden*

**Bio 4700 Molecular Genetics (4)**

Molecular biology of the gene with an emphasis on current topics related to recombinant DNA and genetic engineering. Laboratory activities include methods and instrumentation used in recombinant DNA studies. (3 hr. lec./3 hr. lab.)

Prerequisites: Bio 3704 and Bio 4105 or permission of the instructor.

*Mancarella*

**Techniques and Others****Bio 3815 Microtechniques (4)**

Experience in the preparation of biological material for microscopic examination; fixing, embedding, sectioning, mounting, staining; preparation of whole amounts of small specimens. (Two 3 hr. lec./lab. periods: many procedures require the student's presence at times in addition to scheduled class hours.)

Prerequisites: One of the following: Bio 2200, 2402, or 3403; Che 1032 or 1084; or permission of instructor.

*Kmetz*

**Bio 3820 Basic Tissue Culture (4)**

Fundamentals of animal and plant tissue culture. Laboratory exercises include methods of establishing and maintaining primary tissue cultures and the culture of established cell lines. (3 hr. lec./3 hr. lab.)

Prerequisites: 16 credits of Biology including Bio 2200 or permission of the instructor.

**Bio 4825 An Introduction to the Theories and Practice of Diagnostic Radiology (4)**

Studies include fundamentals of X-ray physics, monitoring, protection, medical radiographic techniques, exposure and processing, special procedures, nuclear medicine, ultrasonics, computerized axial tomography, therapy and diagnostics. Designed for preparation for graduate studies in health delivery systems. Laboratory shall be with an accredited affiliated hospital (3 hr. lec./3 hr. lab.)

Prerequisites: Bio 3403, 3404 and Phy 2091, 2092 or their equivalent.

*Smith*

**Bio 4835 Biostatistics (4)**

Basic statistical techniques useful in scientific research including probability, frequency distributions, statistical inference, and applications of chi square, analysis of variance, and regression. Laboratory problems and computer utilization supplement lecture material. (3 hr. lec./3 hr. lab.)

Prerequisites: Bio 1000 and Mat 1052 or permission of instructor.

**Research and Seminar****Bio 4905 Seminar in Biology (1)**

A critical study of current topics in biology utilizing the original literature. The student prepares and presents a paper to the seminar group. Following the presentation, the speaker serves as moderator in a discussion of the subject. May be repeated for credit.

Prerequisite: Eight hours in biology.

**Bio 4911,2,3,4 Special Topics in Biology (1-4)**

Class work designed to provide an opportunity to study special topics in biology which are not studied in regular courses. Topics to be announced by the department. One semester hour of credit given for each 15 hours of class work.

Prerequisites: 16 semester hours of biology.

**Bio 4955 Introduction to Biological Research (3)**

The philosophy, aims and methods of biological research are developed through lectures, discussions and the execution of a research project.

Prerequisite: Permission of instructor.

**Bio 4961,2,3 Independent Research in Biology (1-3)**

Research problems in biology outlines and supervised by a faculty member. Open to senior biology majors and Dean's list juniors. May be repeated for credit.

Prerequisite: Approval of department chairperson.

**Chemistry Courses****General****Che 1000 Principles of Chemistry (4)**

A one-semester terminal course in the structure of matter, the laws that describe its transformations, and the theories that attempt to explain them. Involves symbols, formulas, equations, and computations in the study of chemical change, acids, bases, salts, solutions, and organic compounds. This course may not be submitted as a prerequisite for advanced chemistry courses or to meet the chemistry requirements of a liberal arts science major. (3 hr. lec./2 hr. lab.)

**Che 1001 Principles of Chemistry: Lecture (3)**

Duplicates the non-laboratory portion of Che 1000. A non-laboratory course restricted to non-matriculated students wishing to transfer the credits to institutions not requiring laboratory experience. Students meet with Che 1000 sections and are responsible for the same examinations and non-laboratory assignments.

Prerequisites: Che 1083-1084 or permission of instructor.

**Che 1010 Preparatory Chemistry or Foundations of Chemistry (4)**

Basic introduction to elementary chemical principles, language, calculations, and techniques. Modular approach stresses mastery of concepts. May not be used for credit toward graduation by chemistry majors. (3 hr. lec./3 hr. lab.)

**Che 1031 Fundamentals of General Chemistry (4)**

Required for students majoring in programs in all health professions (except medical technology). Fundamental concepts of general chemistry are related to biological function. Topics include: Basic stoichiometry, atomic structure and bonding, acid-base equilibria, solutions, oxidation-reduction. (3 hr. lec./3 hr. lab.)

**Che 1032 Fundamentals of Organic and Biochemistry (4)**

A continuation of Che 1031. Organic chemistry and biochemistry introduced in order that metabolic cycles and body chemistry may be considered in depth. (3 hr. lec./3 hr. lab.)

Prerequisite: Che 1031.

**Che 1083 Chemistry I (4)**

A thorough discussion of the fundamental principles of chemistry such as atomic structure, bonding, solutions, chemical equilibrium, oxidation, reduction, and descriptive chemistry. Mathematical relationships and problem-solving are stressed. It is advisable that the student have competence in elementary algebra. (3 hr. lec./3 hr. lab.)

Corequisite: Mat 1052 or equivalent or permission of instructor.

**Che 1084 Chemistry II (4)**

A continuation of Che 1083 which is prerequisite. (3 hr. lec./3 hr. lab.)

**Organic****Che 2180 Principles of Organic Chemistry (4)**

A terminal one semester course dealing with the principles involved in the elucidation of the structure of organic compounds and the nature of the reactions encountered in aliphatic and aromatic chemistry. Examples of the common functional groups. Industrial and medical applications. (3 hr. lec./3 hr. lab.)

Prerequisites: Che 1083-1084 or permission of the instructor.

*Kampa*

**Che 2181 Principles of Organic Chemistry: Lecture (3)**

Duplicates the non-laboratory portion of Che 2180. A non-laboratory course restricted to non-matriculated students wishing to transfer credits to institutions not requiring the laboratory. Students meet with Che 2180 sections and are responsible for the same examinations and non-laboratory assignments.

Prerequisites: Che 1083-1084 or permission of instructor.

**Che 3181 Organic Chemistry Lecture I (3)**

A first course in organic chemistry. The nature and reactions of organic compounds are studied via a functional group organization. Atomic and molecular orbital theory; aliphatic, aromatic, alicyclic; reaction mechanisms; resonance; stereoisomerism; conformational analysis; and free radicals. (3 hr. lec.)

Prerequisites: Che 1083-1084 at grade "C" or better.

Corequisites: Che 3183 or permission of instructor.

*Leeds, Saba, Vitale*

**Che 3182 Organic Chemistry Lecture II (3)**

A continuation of Che 3181. Prerequisites: Che 3181 and 3183 or 3185 or permission of instructor.

Corequisite: Che 3184.

*Leeds, Saba, Vitale*

**Che 3183 Organic Chemistry Laboratory and Recitation I (2)**

Reactions of organic compounds. Substances representative of the major classes of compounds prepared, purified, and verified. A literature research required. Approaches to problem-solving discussed. (4 hr. lab./1 hr. lec.)

Corequisite: Che 3181 or permission of the instructor.

*Saba, Vitale*

**Che 3184 Organic Chemistry Laboratory and Recitation II (2)**

A continuation of Che 3183. The student completes the course designing a procedure in the preparation of an organic intermediate. (4 hr. lab./1 hr. lec.)

Corequisite: Che 3182 or permission of the instructor.

*Saba, Vitale*

**Che 4150 Spectrometric Identification of Organic Compounds (3)**

Determination of the structure of organic compounds by analysis on infrared, ultraviolet, nuclear magnetic resonance and mass spectra. Use of published spectra of "unknowns."  
Prerequisites: Che 3182, 3382 or permission of instructor.

**Che 4181 Organic Chemistry Lecture III (3)**

A continuation in depth of the study of organic compounds and syntheses from a mechanistic approach.  
Prerequisite: Che 3182.

**Che 4182 Advanced Organic Preparations (3)**

A laboratory course designed to give the student a broader background in the synthesis of organic compounds. (1 hr. lec./6 hr. lab.)  
Prerequisite: Che 3184.

**Che 4183 Introduction to Physical Organic Chemistry (3)**

The application of physical chemical principles to the study of organic compounds. An introduction to conformational analysis, molecular orbital theory and resonance concepts.  
Prerequisites: Che 3182 and 3382.

**Analytical****Che 2283 Quantitative Analysis (4)**

The theory, calculations, and techniques of gravimetric, titrimetric and photometric methods of analysis. (2 hr. lec./6 hr. lab.)  
Prerequisite: Che 1084 or equivalent with a minimum grade of C.  
*Criasia, Wieck*

**Che 3284 Instrumental Methods of Chemical Analysis (4)**

General applications of modern instruments to the detection, identification and estimation of chemical elements and compounds. Laboratory exercises in the use of a variety of instruments. (3 hr. lec./3 hr. lab.)  
Prerequisites: Che 2283, Mat 2411, Phy 2098 or permission of instructor.  
*Criasia, Wieck*

**Che 4285 Chemical Separation Methods (3)**

Provides background in modern chemical separation methods. Theory, instrumentation and application of distillation, selective complexation, solvent extraction and various chromatographic methods. Emphasis on high performance, thin layer; liquid and gas chromatographic techniques. Experience with sophisticated chromatographic instruments. (3 hr. lec./lab.)  
Prerequisites: Che 3284, 3382 or permission of instructor.  
*Criasia, Wieck*

**Che 4291 X-Ray and SEM Analytical Methods (3)**

Theory, instrumentation and application of X-ray diffraction, X-ray fluorescence (wave length and energy detection), scanning electron microscopy and other related techniques to a variety of non-biological chemical systems. (2 hr. lec./4 hr. lab.)  
Prerequisite: Che 3284.  
Corequisite: Che 3382 or permission of instructor.  
*Luther*

**Physical****Che 3381 Physical Chemistry Lecture I (3)**

Basic theories behind the behavior of matter discussed in great detail for deeper understanding of thermodynamics, kinetics, solutions, states of matter, chemical equilibrium and other topics. (3 hr. lec.)  
Prerequisites: Che 1084 at grade "C" or better, Phy 2096 and Mat 3451 or permission of instructor.  
*Getzin, Lees*

**Che 3382 Physical Chemistry Lecture II (3)**

A continuation of Che 3381 which is prerequisite. (3 hr. lec.)  
*Getzin, Lees*

**Che 3383 Physical Chemistry Laboratory and Recitation I (2)**

Laboratory experience to illustrate theoretical concepts of physical chemistry through experimental measurement. Experience with a wide range of sophisticated chemical equipment. Recitation for integration of problem solving and lecture and laboratory applications. (4 hr. lab./1 hr. recitation)  
Prerequisite: Che 2283.

Corequisite: Che 3381 or permission of instructor.

*Lees, Luther*

**Che 3384 Physical Chemistry Laboratory and Recitation II (2)**

Continuation of Che 3383 with increased emphasis on spectroscopic methods for obtaining various kinetic, thermodynamic and structural information about chemical compounds and systems. (4 hr. lab./1 hr. recitation)

Prerequisite: Che 3383.

Corequisite: Che 3382 or permission of instructor.

*Lees, Luther*

**Che 4381 Physical Chemistry III—Chemical Thermodynamics (3)**

An advanced treatment of the laws of thermodynamics, and rigorous application to problems of chemical interest including heats of reaction, spontaneity of chemical reactions and phase changes. (3 hr. lec.)  
Prerequisites: Che 3382 and Mat 3452 or permission of instructor.  
*Getzin, Lees*

**Che 4382 Physical Chemistry IV—Quantum Chemistry (3)**

Development of the mathematical and physical theory of Quantum Mechanics and application to the structure and properties of atoms and molecules. The Schrodinger Equation, Variation Theory and Perturbation Theory. (3 hr. lec.)  
Prerequisites: Che 3382 and Mat 3452 or permission of instructor.  
*Getzin, Lees*

**Inorganic****Che 2491 Inorganic Chemistry (3)**

Descriptive chemistry of the Main Group elements, transition metals and rare earth metals. Emphasis on the chemical and physical properties of the elements. Discussion of periodic law, basics of nuclear chemistry and natural occurrence and industrial uses of the elements and their compounds. (3 hr. lec.)  
Prerequisite: Math 2411; "C" or better in Chem 1084; or permission of the instructor.

**Che 4481 Advanced Inorganic Chemistry (3)**

Periodicity and stereochemistry of the Main Group Elements and comparative group properties. Stereochemistry and coordination chemistry of transition metals. Discussion of the theories of bonding in transition metal complexes and the Main Group elements. Nonaqueous solvents and reaction mechanisms in inorganic chemistry. (3 hr. lec.)  
Prerequisite: Che 3284, Che 2491 or permission of instructor.

Corequisite: Che 3382 or permission of instructor.

*Luther*

**Che 4483 Inorganic Chemistry Laboratory I (2)**

Modern methods of synthesizing inorganic and organometallic compounds including electrolytic, high temperature and vacuum-line preparations. Study of the prepared compounds using a variety of techniques including spectroscopic, chromatographic and electroanalytical. (6 hr. lab.)  
Prerequisite or corequisite: Che 4481.

*Luther*

**Biochemistry****Che 4510 Special Topics in Biochemistry (4)**

Protein characterization, enzyme kinetics, action and regulation, oxygen transporters, biological oxidations, drug metabolism and drug-receptor interactions with an emphasis on energy transformation in living cells. (3 hr. lec./4 hr. lab.)  
Prerequisite: Bio 4105 or permission of instructor.  
Corequisite: Che 3381.  
*Kampa*

**Seminars and Independent Study**

*A maximum of 12 credits of chemistry research (Che 3901-4 and Che 4905-6) may be taken. Only 6 credits may be applied towards the 124 credits required for graduation.*

**Che 3901-4 Independent Chemistry Research I-IV (1-2)**

Research problems in chemistry investigated under direction of a faculty member. Students completing two semesters of independent study under the same project director must submit a written or oral report to the departmental research committee. May be taken 4 times for credit, 1-2 credits per semester.  
Prerequisites: 8 credits in chemistry plus 12 credits in 2000 level science or mathematics courses, sponsoring faculty member and approval of department chairperson.

**Che 4905-6 Senior Honors Research I & II (3,3)**

Research problems in chemistry investigated under the direction of a faculty member. A progress report must be submitted to the faculty sponsor before the end of each semester. An oral report to be made before the departmental research committee at end of second semester. Seniors wishing to qualify for honors with their chemistry degree must also submit a thesis or publishable report to the departmental research committee before completing second term.

Prerequisites: Che 3381, 3383, a sponsoring faculty member, and approval of department chairperson. Che 4905 is prerequisite to 4906.

**Che 4953 Seminar I (2)**

The student is asked to pursue a problem of current interest, prepares and presents a paper to a seminar group. Following the presentation, the speaker serves as moderator in a discussion of the subject.

**Che 4954 Seminar II (2)**

A continuation of Che 4953.  
Students emphasizing a chemistry specialization may elect Bio 4105 and Phy 4491.

**Physics Courses****General****Phy 1000 Principles of Contemporary Physics (4)**

A one-semester survey of important principles of physics with applications to a variety of disciplines in modern technological society. Designed for non-science majors. (3 hr. lec./3 hr. lab.)

**Phy 1001 Principles of Contemporary Physics (3)**

Duplicates the non-laboratory portion of Phy 1000. Designed for non-science majors.

**Phy 2030 Physics of Sound (4)**

The study of sound with applications to music and speech. Basic physical concepts, the nature and transmission of sound waves, standing waves and resonance, auditorium and room acoustics, the ear and hearing. Relation of physical phenomena to physiological response, musical intervals, scales and tuning. Musical instruments, the human voice, electronic recording and reproduction. Not to be taken by science and health related majors. (3 hr. lec./3 hr. lab.)

Prerequisite: Phy 2091 or Phy 2095.

*Blount*

**Phy 2081, 2082, 2083 Physics Lecture I, II & III (3,3,3)**

Duplicates the non-laboratory portions of Phy 2091, 2092 and 2098 respectively. Non-laboratory courses restricted to non-matriculated students wishing to transfer credits to institutions not requiring laboratory. Students meet with Phy 2091, 2092, 2098 and are responsible for all non-laboratory assignments of those courses.

Prerequisites: For Phy 2081—Mat 1052-1053, its equivalent or permission of instructor. For Phy 2082 and 2083—Phy 2081 or 2091 or permission of instructor.

**Phy 2091 General Physics I (4)**

Mechanics, heat sound. Phy 2091 and 2092 is a sequence designed to give a broad quantitative understanding of classical physics without the use of calculus. Ability in geometry, algebra and trigonometry is required. Students may not receive credit for both Phy 2091 and 2095. (3 hr. lec./3 hr. lab.)  
Prerequisites: Mat 1052 and 1053 or equivalent, or permission of instructor.

**Phy 2092 General Physics II (4)**

Continuation of the general physics sequence to cover the topics of light, electricity, magnetism and atomic physics. Students may not receive credit for both Phy 2092 and 2096. (3 hr. lec./3 hr. lab.)  
Prerequisite: Phy 2091.

**Phy 2095 Physics I (4)**

Mechanics, heat and sound. The sequence 2095, 2096 is for science majors and other students with concurrent or previous calculus training. Students may not receive credit for both 2095 and 2091. (3 hr. lec./3 hr. lab.)  
Corequisite: Mat 2411 or permission of instructor.

**Phy 2096 Physics II (4)**

Light, optics, electricity, magnetism and atomic physics. Students may not receive credit for both 2096 and 2092. (3 hr. lec./3 hr. lab.)

Prerequisite: Phy 2095.

Corequisite: Mat 2412 or permission of instructor.

**Phy 2098 General Physics III (4)**

Modern physics: topics include electricity, atomic and nuclear structure, quantum phenomena, radiation, X-rays, lasers and relativity. (3 hr. lec./3 hr. lab.)  
Prerequisite: Phy 2091 or 2095.

**Mechanics****Phy 3191 Mechanics (4)**

A rigorous approach to the problem of the statics and dynamics of particles and rigid bodies. (3 hr. lec./3 hr. lab.)  
Prerequisites: Phy 2095-2096 and Mat 2411-2412.

*Blount, Silano*

**Phy 3195 Fluid Mechanics (3)**

An introductory lecture course in the physics and applications of incompressible and compressible fluids, and of fluid power, dealing with the transmission, control, and storage of energy by means of a pressured fluid in a closed system.  
Prerequisites: Phy 2095-2096 or permission of instructor.

*Blount*

**Optics****Phy 3294 Optics (4)**

An intermediate course designed for qualified students who desire an extensive knowledge of geometrical and physical optics and who seek a rigorous and comprehensive treatment of optics. (3 hr. lec./3 hr. lab.)  
Prerequisites: Phy 2095-2096 or permission of instructor.  
*Bailey*

## Electricity—Magnetism

**Phy 3392 Magnetism and Electricity (4)**  
Theory of electrostatics, electromagnetics, d.c. and a.c. electrical and magnetic circuit analysis, electromagnetic radiation. Maxwell's equation. (3 hr. lec./3 hr. lab.)  
Prerequisites: Phy 2095-2096 and Math 2411-2412.

*Silano, Struyk*

**Phy 3393 Electronics (4)**

Designed to provide the student with a background in the theory and application of analog and digital electronics circuits and solid state devices. Laboratory work directed toward the study and understanding of electronic circuits. (3 hr. lec./3 hr. lab.)  
Prerequisites: Phy 2095-2096 and Math 2411-2412.

*Silano*

## Thermodynamics

**Phy 4491 Thermodynamics and Heat (4)**

A detailed study of thermometry, calorimetry and transfer, and heat processes. Classical approach to thermodynamics and kinetic theory. (3 hr. lec./3 hr. lab.)  
Prerequisites: Phy 2095-2096 or permission of the instructor.

*Blount*

## Modern Physics

**Phy 4592 Modern Physics (4)**

A rigorous survey of atomic and nuclear physics, early experimentation, incompatibility of experimental findings and classical theory, and quantum and wave mechanics approaches to understanding modern physics. (3 hr. lec./3 hr. lab.)

Prerequisites: Phy 2095-2096 or permission of the instructor.

*Struyk*

**Phy 4594 Quantum Mechanics (3)**

This lecture course is an introduction to the physical and mathematical formulation of quantum mechanics. After a brief historical development, topics considered are the Schrodinger Equation and its application to problems involving the free particle, potential barriers, the linear harmonic oscillator, central force motion, and the hydrogen atom. Perturbation methods are introduced.

Prerequisites: Phy 3191 and 4592, and Mat 4403 or permission of the instructor.

*Struyk*

**Phy 4595 Solid State Physics (3)**

An introductory lecture course dealing with the phenomenological and theoretical aspects of solid state physics. Areas considered in depth include symmetry, crystal structure and X-ray analysis of crystals followed by a detailed study of the thermal, optical, magnetic and dielectric properties of solids.

Prerequisite: Phy 4592 or permission of the instructor.

*Bailey, Silano*

## Radiation

**Phy 3600 Radiation Physics (3)**

Basic experimental and theoretical information relating to the production of x-rays and their interaction with matter presented with emphasis on their use in Diagnostic Radiology. Related topics of study include radiation measuring apparatus, patient dosimetry, the physical aspects of radiological procedures, and an introduction to radiation protection.

Prerequisite: Phy 2092 or 2098 or permission of the instructor.

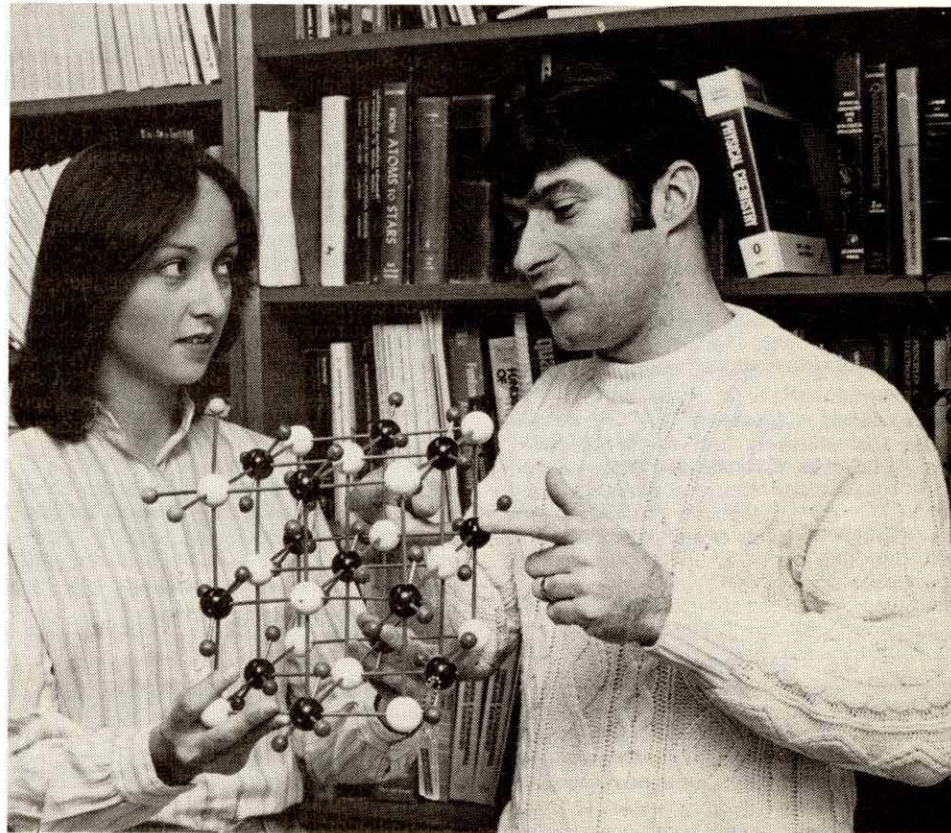
## Seminars and Independent Study

**Phy 4953 Physics Seminar I (2)**

Student pursues a problem of current interest. Preparation and presentation of paper to a seminar group. Following the presentation, the speaker serves as moderator in a discussion of the subject.

**Phy 4954 Physics Seminar II (2)**

A continuation of Phy 4953.



## Astronomy Courses

**Ast 1100 (ES 1100) Introduction to Astronomy (4)**

A study of heavenly bodies, solar systems and the sidereal universe, with emphasis on the nature of astronomical investigations. (3 hr. lec./3 hr. lab.)

**Ast 3168 (ES 3168) Practical Astronomy (3)**

Methods of determining, describing and using the positions and apparent motions of celestial bodies. Topics include fundamental position determination, time systems and standards, celestial navigation, the calendar, and related astronomical instrumentation.

Prerequisites: Ast 1100 and Mat 2412 or permission of the instructor.

**Ast 3171 (ES 3171) Solar System Astronomy (3)**

The characteristics of the individual objects and systems of objects that together comprise our solar system; theories of the origin of our planetary system.

Prerequisites: Mat 2412, Phy 2092 previously or concurrently, Ast 1000 or permission of instructor.

**Ast 3172 (ES 3172) Stellar Astronomy (3)**

A study of stellar distances and motions, stellar brightness, binary and variable stars, stellar spectra, star clusters, stellar evolution and galactic structure.

Prerequisites: Ast 1100, Mat 2412, Phy 2092 previously or concurrently or permission of the instructor.

**Ast 4181 (ES 4181) Astrophysics (3)**

Study of atomic structure and spectra, behavior of a gas under conditions of astrophysical interest, general equations of stellar structure, properties of radiation, the radiative transfer equation and formation of the stellar spectra.

Prerequisites: Mat 4403 and Phy 2092.

## Geology Courses

**Geol 1200 (ES 1200) Introduction to Geology (4)**

A study of the processes at work upon and within the earth in terms of their impact upon the preservation of the record of the history of the earth. *Credit for graduation will not be granted for both Geol 1010 and Geol 1200.* (3 hr. lec./3 hr. lab.)

**Geol 1201 (ES 1201) Geologic Hazards (3)**

An investigation of those geologic phenomena that are hazards to man's use of the land, such as earthquakes, volcanic eruptions, flooding and beach erosion. Consideration given to the normal operation of geologic activity and to the accelerated activity caused by man's interaction with the environment. Intended for non-majors. May be taken without Geol 1202 but if Geol 1202 is also taken, both must be taken concurrently. *Students who receive credit for Geol 1200 do not also receive credit for 1201 and 1202.*

*Rockman*

**Geol 1202 (ES 1202) Geologic Hazards Laboratory (1)**

Must be taken concurrently with Geol 1202.

*Rockman*

**Geol 1205 Mineral and Fossil Fuel Resources (3)**

Minerals and fossil fuels, supplies and their use. Past use and future trends in light of depletion, recycling and technological advances. *Does not fulfill major requirements.*

**Geol 1210 (ES 1210) Geology of the National Parks (3)**

An in-depth study of the depositional, tectonic and erosional processes that have produced the unique geological regions designated as National Parks by the Congress of the United States. *Does not fulfill major requirements.*

*Kroll*

**Geol 2262 (ES 2262) Geology and the Environment (3)**

Examination of the problems associated with man's urban pattern of civilization and resultant interactions with the geologic environment.

Prerequisite: Geol 1200 or permission of the instructor.

*Rockman*

**Geol 2263 (ES 2263) Geology and the Environment Lab (1)**

Must be taken concurrently with Geol 2262.

*Rockman*

**Geol 3261 (ES 3261) Mineralogy (4)**

An introductory study of minerals; their morphology, internal structure, origin, occurrence, and properties. (3 hr. lec./3 hr. lab.)

Prerequisites: Geol 1200 and Che 1083-1084, or permission of the instructor.

*Kroll*

**Geol 3263 (ES 3263) Structural Geology (4)**

A study of the architecture of the rock materials of the earth, including a description of geologic structure in terms of origin, principles and mechanics of crustal deformation. (3 hr. lec./3 hr. lab.)

Prerequisite: Geol 1200 or permission of the instructor.

*Kroll*

**Geol 3264 (ES 3264) Invertebrate Paleontology (4)**

A study of the classification, relationships, and evolutionary history of fossils. Emphasis is placed on paleoecological relationships. (3 hr. lec./3 hr. lab.)

Prerequisite: Geol 1200 or permission of the instructor.

*Metz*

**Geol 3265 (ES 3265) Geomorphology (4)**

Analysis of the various land forms of the earth's surface in terms of their nature, origin, and evolution. The influence of the different geologic and climatic environments upon the development of land form. Map interpretation. (3 hr. lec./3 hr. lab.)

Prerequisite: Geol 1200 or permission of the instructor.

*Rockman*

**Geol 3266 (ES 3266) Hydrology (4)**

The distribution and movement of water with emphasis given to surface waters, their relations to the fluvial aspects of geomorphology and to the impact of man on the hydrologic cycle. (3 hr. lec./3 hr. lab.)

Prerequisites: Geol 1200 or Met 1300 or permission of instructor.

*Rockman*

**Geol 3269 (ES 3269) Astrogeology (4)**

The geologic environments of the moon and the planets examined with emphasis on the nature of the lunar surface. Consideration given to pertinent terrestrial environments and phenomena and to the related aspects of meteoritics. (3 hr. lec./3 hr. lab.)

Prerequisites: Ast 1100 or Geol 1200 or permission of instructor.

*Rockman*

**Geol 3281 (ES 3281) Field Geology (2)**

Field practice in the methods of geological mapping including the use of pace, compass, and clinometer surveys, the plane table and alidade, and aerial photographs.

Prerequisite: Geol 1200 or permission of the instructor.

*Metz*

**Geol 4252 (ES 4252) Field Geology II (2)**

Field conference and studies of one or more selected areas with written reports and maps. Additional expenses may be incurred.

Prerequisites: Geol 3261, 3263, 4266 (may be taken concurrently), or permission of the instructor.

*Metz*

**Geol 4256 (ES 4256) Glacial and Pleistocene Geology (3)**

Analysis of the distribution, movement, and deposits of modern glaciers used to interpret glacial features formed during the Pleistocene glacial epoch. Theories concerning the cause or causes of continental glaciation.

Prerequisite: Geol 1200 or permission of the instructor.

*Kroll*

**Geol 4263 (ES 4263) Optical Mineralogy (4)**

Mineral identification through the use of the petrographic microscope by immersion and thin-section methods. (3 hr. lec./3 hr. lab.)

Prerequisite: Geol 3261 or permission of the instructor.

*Kroll*

**Geol 4265 (ES 4265) Petrology (4)**

A study of the petrologic processes at work upon and within the crust of the earth which produce and modify rock bodies. (3 hr. lec./3 hr. lab.)

Prerequisite: Geol 3261 or permission of the instructor.

Kroll

**Geol 4266 (ES 4266) Stratigraphy (4)**

Origin, composition, distribution and correlation of stratified rock. (3 hr. lec./3 hr. lab.)

Prerequisite: Twelve hours of geology or permission of the instructor.

Metz

**Geol 4268 (ES 4268) Topographic Map Interpretation (3)**

Description and interpretation of selected topographic maps chosen to illustrate variety of landforms of the United States and the influence of structure, process and time on landform development. (1 hr. lec./6 hr. lab.)

Prerequisite: Geol 3265 (may be taken concurrently) or permission of instructor.

Rockman

**Geol 4917 (ES 4917) Geoscience Technology (4)**

Development of the specific skills used in geoscience technology; rock thin sectioning; diffraction; preparation of visual aids for geoscience teaching.

Prerequisites: Geol 3261, IS 1500 and 2500. Corequisite: Geol 4263.

Kroll

**Meteorology Courses****Met 1300 (ES 1300) Introduction to Meteorology (4)**

A non-mathematical study of the atmosphere, including meteorological instruments, the general circulation of the atmosphere, fronts and air masses, cyclones, hurricanes, and the upper atmosphere. Atmospheric phenomena discussed in terms of structure and prediction. (3 hr. lec./3 hr. lab.)

**Met 2300 (ES 2300) Climatology (3)**

Global distribution of the principal climatic elements with emphasis on the physical causes of climate. Theories regarding climatic change. (Same as Geog 2300).

Prerequisite: Met 1300 or permission of the instructor.

**Met 2301 (ES 2301) Climatology Laboratory (1)**

Techniques in handling climatological data. (Same as Geog 2301).

Corequisite: Met 2300 or permission of the instructor.

**Met 2310 (ES 2310) General Meteorology (4)**

An overview of meteorology with emphasis on the dynamic aspects of atmospheric behavior. Topics include air masses, fronts, cyclones and anticyclones, winds, theoretical basis for weather forecasting, and mathematical techniques. (3 hr. lec./3 hr. lab.)

Prerequisite: Met 1300 or permission of instructor.

Prerequisite or corequisite: Mat 2412 or permission of instructor.

C. Murphy

**Met 2350 (ES 2350) Aviation Meteorology (3)**

A study and analysis of mid-latitude meteorology in the Northern Hemisphere with an emphasis on those phenomena affecting aircraft operation.

Prerequisite: Met 1300 or permission of instructor.

**Met 2360 (ES 2360) Weather Analysis (3)**

Familiarization with daily weather data which come in on facsimile and teletype; plotting and analyzing of weather maps; weather map discussion; weather forecasting; daily weather observations. (2 hr. lec./3 hr. lab.)

Prerequisite: Met 1300.

Zois

**Met 3360 (ES 3360) Air Pollution (3)**

An introduction to the problem of air pollution as seen from a meteorological viewpoint.

Prerequisite: Met 1300 or permission of instructor.

C. Murphy

**Met 3369 (ES 3369) Planetary Atmospheres (4)**

The earth's atmosphere as a planetary environment and the origin, evolution and current state of our knowledge of the atmospheres of the other planets and their prospects for harboring life. (3 hr. lec./3 hr. lab.)

Prerequisites: Ast 1100 or Met 1300 and Mat 1052.

**Met 3370 (ES 3370) Atmospheric Dynamics (4)**

A mathematical formulation of the physical laws which govern weather processes and atmospheric motion. (3 hr. lec./3 hr. lab.)

Prerequisites: Met 1300, Phy 2092, Mat 2412 or permission of instructor.

Zois

**Met 3371 (ES 3371) Atmospheric Thermodynamics (4)**

The application of thermodynamic principles to the atmosphere with particular emphasis on the thermodynamics of moist air. Related topics such as hydrostatic equilibrium, altimetry and atmospheric convection treated. (3 hr. lec./3 hr. lab.)

Prerequisites: Met 1300, Phy 2092, Mat 2412 or permission of instructor.

**Met 3372 (ES 3372) Physical Meteorology (3)**

Qualitative and quantitative description of the non-dynamic meteorological phenomena including the production of precipitation, rainbows, halos, lightning, particle pollution and the earth's radiation balance. The interaction of light, radar, sound and shock waves with the atmosphere. Use of these phenomena in remote sensing.

Prerequisites: Mat 2412, Met 1300, Phy 2092 or permission of instructor.

C. Murphy

**Met 3380 (ES 3380) Meteorological Instrumentation (3)**

Familiarization with the various instruments used to monitor the atmosphere; principles of operation, how to take readings with each instrument, instrument maintenance and repair. Students required to take instrument readings. (3 hr. lec./3 hr. lab.)

Prerequisites: Met 1300 and Mat 1052.

C. Murphy

**Met 4301-2 (ES 4301-2) Meteorology Cooperative Education I & II (3,3)**

A practical field experience. Student assigned to an organization involved in meteorological activity such as federal and state government, industry, media, etc. Cooperative employers matched with student's area of interest within field of meteorology. Working hours flexible. Credits earned count as free electives. No more than 40 s.h. in ES can be applied to the 124 s.h. required for the degree.

Prerequisite: Explicit written permission of the instructor.

Zois

**Met 4351-2 (ES 4351-2) Synoptic Meteorology I & II (4,4)**

Understanding the processes which govern the weather; practical application of the predictive equations through use of weather maps; in depth analysis of N.M.C. facsimile charts; extensive plotting and analysis of synoptic charts stressing the three dimensional nature of weather systems; weather forecasting and briefing. (2 hr. lec./6 hr. lab.)

Prerequisites: Met 3370 and 3371 or permission of instructor. Met 4351 is prerequisite to 4352.

Zois

**Met 4370 (ES 4370) Advanced Atmospheric Dynamics (3)**

Circulation, vorticity, and divergence theorems, theory of Rossby Waves, pressure coordinates, turbulence and diffusion, energy conversions, numerical weather prediction, the general circulation.

Prerequisites: Met 3370 and 3371 or permission of the instructor.

Zois

**Oceanography Courses****Ocean 3453 (ES 3453) Introduction to Oceanography (4)**

A survey of modern oceanography and its methods including characteristics of sea water, theories of ocean currents and, in general, applications of sciences to the study of the oceans. (3 hr. lec./3 hr. lab.)

Prerequisites: Two of the following: Bio 1000, Phy 2091, Che 1083, Geol 1200 or Met 1300 or permission of instructor.

Meyerson

**Ocean 4454 (ES 4454) Marine Geology (4)**

Introduction to the geology of the oceans, including tectonics, geochemistry, shoreline processes, stratigraphy, sedimentology, and related subjects. (3 hr. lec./3 hr. lab.)

Prerequisite: Ocean 3453 or permission of instructor.

Meyerson

**Ocean 4455 (ES 4455) Chemical Oceanography (4)**

Also offered at the New Jersey Marine Science Consortium field station.

Study of the properties and interactions of chemical substances present in the marine environment, including their reactions at the air-sea and sea-bottom interfaces. (3 hr. lec./3 hr. lab.)

Prerequisite: Ocean 3453 or permission of instructor.

Meyerson

**Ocean 4470 (ES 4470) Physical Oceanography (4)**

Also offered at the New Jersey Marine Science Consortium field station.

Detailed study of the physical aspects of the oceans including ocean currents, radiation, air-sea interaction, theories of the ocean circulation, geostrophic computations, vorticity. (3 hr. lec./3 hr. lab.)

Prerequisite: Ocean 3453 or permission of instructor.

Zois

**Earth Science Courses****Special Topics and Seminars****ES 4901-4902 Special Topics in Earth Science (3,3)**

Intensive study of specific topics of an advanced nature in the earth sciences. Subject of a semester's work varies.

Prerequisite: Permission of the instructor.

**ES 4953 Earth Science Seminar I (2)**

The student is asked to pursue a problem of current interest. The student prepares and presents a paper to a seminar group. Following the presentation, the speaker serves as moderator in a discussion of the subjects.

**ES 4954 Earth Science Seminar II (2)**

A continuation of ES 4953.

**Honors Program**

*The Honors Program in Earth and Planetary Environments has been developed for the twofold purposes of recognition of superior achievement and the encouragement of meaningful original research by senior majors. In order to be eligible for admission to the honors program, the student must have maintained a grade-point average of 3.0 in all courses through the end of the junior year as well as a grade-point average of 3.0 in all earth science courses through the end of the junior year.*

**ES 4963, 4964 Honors Research Seminar in Earth Science I & II (2,2)**

Individual research of an original nature under the supervision of a research sponsor. Results of the work to be presented as a seminar. May be taken in place of but not in addition to ES 4953, 4954.

Prerequisites: Earth Science majors, of senior standing, with a grade point average of 3.0 overall as well as in Earth Science courses admitted upon written nomination by a departmental research sponsor and written recommendation by one other departmental faculty member.

**Interdisciplinary Courses**

*The following are found in the Interdisciplinary Courses. (See Index.)*

**ID 3101-3102 Seminar in Environmental Studies I & II****ID 4101-4102 Seminar in Environmental Studies III & IV**

Mathematics Courses

Developmental Courses

*Degree credit not granted for these courses. See page 20.*

**Mat 0143 Introduction to Mathematics (NC)**  
A developmental mathematics course which introduces the student to a variety of topics such as the calculator, elementary number theory, basic algebra, geometric measurement, descriptive statistics, and the computer. Prerequisite: Permission of department chairperson.

**Mat 0150 Introductory Algebra (NC)**  
A developmental mathematics course which includes the operations with real numbers, simple polynomial expressions, exponents and radical expressions, solution of simple first degree equations and inequalities. Required of all students identified by the New Jersey State College Basic Skills Placement Test as being deficient in mathematics skills.

**Mat 0151 Fundamentals of College Algebra (NC)**  
Review of elementary algebra, exponents, radicals, logarithms. Introduction to functions with strong emphasis on solution and graphing of linear equations, inequalities and quadratic functions. Required as a prerequisite to Mat 1052 if student placed low on Mathematics Placement Test. Prerequisites: 1-2 years of High School algebra or the equivalent and permission of department chairperson.

Elementary Mathematics

**Mat 1010 Foundations of Mathematics (3)**  
Sets and set operations, logic, number base systems and elementary group theory. A general education course designed for the non-science major. *Credit will not be granted for both Mat 1010 and Mat 1011 nor for both Mat 1010 and Mat 1014.* Prerequisite: Fulfillment of developmental mathematics requirements.

**Mat 1013 Finite Mathematics with Applications (3)**  
Sets, counting, probability, matrices, linear programming and theory of games. Practical applications of mathematics to the behavioral, managerial and life sciences are emphasized. For non-mathematics majors.

**Mat 1016 Statistics (3)**  
Descriptive and inferential statistics: graphic treatment of data, characteristics of distributions, statistical models, correlation, regression, estimation and hypothesis testing, non-parametric techniques. Computer facilities utilized.

**Mat 1052 College Algebra and Trigonometry (3)**  
Systems of equations and inequalities solved by using the axioms of the Real Number system, matrices and determinants, and elementary theory of equations. Properties of the complex numbers, mathematical induction, and the binomial theorem. Algebraic, logarithmic, exponential and trigonometric functions with emphasis on trigonometric identities and trigonometric analysis. Prerequisites: Two years of secondary school algebra and one year of secondary school geometry or equivalent.

**Mat 1053 Analytic Geometry (3)**  
Study of algebraic representations of points, lines and conic sections; transformations, polar coordinates, parametric representations, solid analytic geometry. Prerequisite: Mat 1052 or 3½ years of high school mathematics.

Logic and Foundations

**Mat 2110 Discrete Structures (3)**  
Sets, relations, Boolean algebra, groups, monoids, machines. Applications to computing. Prerequisite: Mat 1052.

**Mat 3155 Mathematical Logic (3)**  
Simple and compound statements. Understanding tools of logic. Statement calculus and predicate calculus, their applications. Prerequisite: Mat 2412 or permission of instructor.

Algebra

**Mat 2995 Matrix and Linear Algebra (3)**  
Basic operations with matrices, eigenvalue problems, combinatorial mathematics, systems of linear equations, linear transforms and vector spaces. Computer applications in linear programming, economics and sciences. Prerequisites: Mat 2411, CpS 1031, or the equivalent. Credit will not be given for both Mat 2995 and CpS 2995.

**Mat 3225 Computational Methods in Matrix and Linear Algebra II (3)**  
Continuation of topics discussed in Mat 2995. Additional topics: inner product spaces, canonical forms, derivatives in higher dimension, systems of differential equations, spectral theory, and their applications in science and economics. Prerequisites: Mat 2412, Mat 2995. *Abeles*

**Mat 3247 Abstract Algebra I (3)**  
Elementary group theory: subgroups, cyclic and permutation groups, direct products, Lagrange's Theorem, normal subgroups and quotient groups, homomorphisms and isomorphisms, the Sylow Theorems. Prerequisite: Mat 2110 or permission of instructor. *Butcher, Goldberg*

**Mat 3248 Abstract Algebra II (3)**  
Rings, integral domains, fields, ideals and quotient rings, rings of polynomials, homomorphisms, extension field and vector spaces. Prerequisite: Mat 3247 or permission of instructor. *Butcher, Goldberg*

Geometry

**Mat 3342 Euclidean and Non-Euclidean Geometry (3)**  
Euclidean geometry, the parallel postulate, Hilbert's axioms, Saccheri-Legendre theorem, non-Euclidean geometries. *Credit for graduation will not be granted for both Mat 2341 and Mat 3342.* Prerequisite: Mat 2110 or permission of the instructor.

Analysis

**Mat Z2400 Calculus for Business and Economics (4)**  
Survey of single variable differential and integral calculus. Algebraic, exponential and logarithmic functions, derivatives, integrals. Applications of calculus to economics and managerial science. This course may not be substituted for the Mat 2411, 2412 sequence. Prerequisite: Mat 1052 or the equivalent and permission of the MSMSA Program Coordinator.

**Mat 2411 Calculus I (3)**  
Functions, limits, and continuity, derivatives and differentials of algebraic functions, tangents and normals to curves, maxima and minima problems, applications. Applications oriented sections offered for those interested in physical and biological sciences or social and management sciences. Prerequisite: Mat 1052 or equivalent or permission of instructor.

**Mat 2412 Calculus II (3)**  
Differentiation of transcendental functions, integration of algebraic and transcendental functions, curvilinear areas, rectification of arcs, volumes, applications, introduction to differential equations. Applications oriented sections offered for those interested in physical and biological sciences or the social and management sciences. Prerequisite: Mat 2411 or permission of the instructor.

**Mat 3451 Calculus III (3)**  
Multidimensional calculus: vector algebra, partial differentiation, grad, div, and curl operations. Prerequisite: Mat 2412 or permission of the instructor. *Hothersall, Krantz*

**Mat 3452 Calculus IV (3)**  
Multiple integrals, line, surface and volume integrals, infinite sequences and series, convergence tests. Taylor series, asymptotic series, numeric methods with series, indeterminate forms, differential equations. Prerequisite: Mat 3451 or permission of the instructor. *Hothersall, Krantz*

**Mat 3455 Differential Equations (3)**  
First order equations, linear equations, numerical methods, Laplace Transforms and systems of equations. Emphasis on applications of differential equations to the solution of scientific problems from such areas as physical science, biology, economics, psychology and social science. Prerequisite: Mat 2412 or permission of the instructor. *Krantz*

**Mat 3940 Numerical Analysis (3)**  
Solution of equations and systems of equations, analysis of errors in numerical methods, numerical differentiation and integration, approximation, interpolation, solutions of differential equations. Prerequisite: Mat 2412 and a college course in computer science. Credit will not be granted for both Mat 3940 and Mat 3942.

**Mat 4451 Advanced Calculus I (3)**  
Fundamental concepts of calculus. Functions of one variable, sequences, limits, continuity, differentiation and integration. Prerequisite or corequisite: Mat 3452 or permission of instructor. *Malbrock*

**Mat 4452 Advanced Calculus II (3)**  
Functions of several variables, partial differentiation, transformations, power series, uniform convergence, line and surface integrals, and vector analysis, including standard theorems and applications. Prerequisite: Mat 3452 or permission of the instructor. *Malbrock*

**Mat 4465 Complex Variables (3)**  
Complex numbers, analytic functions, elementary functions and transformations, complex integration, power series, residues, poles, conformal mapping, and applications. Prerequisite or corequisite: Mat 3452 or permission of the instructor. *Malbrock*

Probability and Statistics

**Mat 2026 Statistical Decision Theory (3)**  
An introduction to the science of decision making under conditions of uncertainty; the relationship between real situations and mathematical models. Prerequisites: Two years of high school algebra or Mat 1052. *Abeles*

**Mat 2036 Non-Parametric Statistics (3)**  
Models and statistical distributions. One, two, and k-sample techniques. Goodness of fit tests. Correlation and regression. Robustness.

**Mat 3511 Games and Gambling (3)**  
Games of chance, combinatorics, probability and game theory. Standard and unusual games are played and then subjected to rational analysis in the face of uncertainty. Historical anecdotes. Role of games in artificial intelligence. Utilization of campus computing equipment. Prerequisite: A course in statistics or computer science.

**Mat 3544 Probability and Mathematical Statistics (3)**  
Sample spaces, random variables and their probability laws, sequences and series for random variables, limit theorems, mathematical expectations, the study of the important distributions such as binomial, Poisson, normal, estimation, hypothesis testing. Applications of chi-square, student's t and F distributions. Prerequisite: Mat 2412.

**Mat 3570 Multivariate Analysis (3)**  
Primarily a second course in statistics with emphasis upon an interdisciplinary approach to modern techniques of multivariate analysis of data. Applications from psychology, sociology, economics, etc. Multiple regression analysis; path analysis; factor analysis, and discriminant analysis. Individual projects considered and computer facilities utilized. Prerequisite: One course in statistics. *Zoll*

**Mat 4545 Applications of Mathematical Statistics (3)**  
Applications of mathematical statistics to decision making, economics, quality control, psychology, and the natural sciences. Linear statistical models, designing experiments in the analysis of enumerative data, regression and variance analysis, goodness of fit tests, randomized block design, nonparametric statistics, factor analysis. Prerequisite: Mat 3544.

Number Theory

**Mat 3624 Number Theory (3)**  
Properties of the integers: divisibility, primes, theory of congruence, Diophantine equations, number theoretic functions—with an historical study of important problems. Prerequisite or corequisite: Mat 3451. *Goldberg*

Applications

**Mat 3815 Cryptography and Cryptanalysis (3)**  
Historical comments, monoalphabetic substitution, homophonic substitution, periodic polyalphabetic, columnar transposition, polyalphabetic transposition, digraphic substitution, running, autokey and other aperiodic ciphers, paracryptography, cipher machines, sympathetic inks: includes access to material of historical interest, campus computing facilities and ink lab. *Deavours*

**Mat 3891 History of Mathematics (3)**  
Evolution of the major concepts and processes associated with elementary mathematics from arithmetic through calculus. Attention to number, algebra, early Greek geometry, analytic geometry, "famous problems," and the work and lives of great mathematicians. Prerequisite: Mat 2412. *Goldberg*

**Mat 4404 Introduction to Applied Mathematics (3)**  
Study of power series solution to differential equations, Bessel functions, Legendre polynomials, partial differential equations, boundary value problems, Fourier series and integrals, the Sturm-Liouville problem and the Gamma and Beta functions. Prerequisite: Mat 3455 or permission of instructor. *Krantz*

**Mat 4800 Elements of Graph Theory (3)**  
Basic concepts and characteristics of special graphs, trees, networks, fundamental numbers and interdisciplinary applications. Prerequisite: CpS 2995 or permission of instructor.

**Mat 4805 Mathematical Modelling for the Life, Physical and Social Sciences (3)**  
Techniques of mathematical model construction. An approach for translating real-world phenomena and problems into the language of mathematics. Models from biology, ecology, economics, psychology, physics and sociology. Utilization of computer facilities. Prerequisite: Mat 3544 or permission of instructor.

**Mat 4809 Special Topics in Mathematics (3)**  
Research study of areas in mathematics influenced by contemporary developments as well as interests and needs of students majoring in mathematics. The subject of a semester's work varies, and course may be taken for credit more than once. Prerequisite: Permission of the instructor.

**Mat 4815 Advanced Cryptanalysis (3)**

Related algebraic, probabilistic, and statistical concepts, N-gram distributions, Chi, Phi, and Kappa tests, entropy and redundancy, index of coincidence, unicity point theory, isomorphisms; applications to polyalphabetic, multiplex systems, Hagelian and Hebern type cryptographs, characteristics of computer cryptology, data encryption.

Prerequisite: Mat 3815 or equivalent or permission of instructor.

*Deavours*

**Computer Science Courses****CpS 1031 Computer Arithmetic Algorithms (3)**

Historical development of computers, computer components, flow charting logic, algorithm design and analysis, programming, software and hardware in an integrated system. *Not for credit in Computer Science major.*

Prerequisites: Completion of Mat 0151 or the equivalent and all other developmental requirements.

**CpS 1032 Principles and Procedures of Electronic Data Processing (3)**

Fundamental principles and procedures of electronic data processing, machine language coding, systems analysis and procedure, flow charts, utilization of coded-data representation for arithmetic and control units, and programming information for various kinds of electronic machines.

Prerequisites: Computer program experience and advisement or CpS 1031.

*Cinque, Deavours*

**CpS 1248 Computer-Based Business Systems (3)**

Analysis design, installation and implementation of computer based business systems with examples drawn from various fields including manufacturing, management information, marketing, and accounting.

Prerequisite: CpS 1031 or equivalent.

*Arnou*

**CpS 1958 Computer-Based Health Systems (3)**

The application of business computer systems and information processing techniques to the allied health professions and in the setting of health care facilities. *Not offered for credit to Computer Science majors. Credit will not be granted for both CpS 1248 and CpS 1958.*

Prerequisites: CpS 1031 and acceptance into MRA program, or permission of the coordinator.

**CpS 2341 Computer Organization and Programming (3)**

Fundamental computing concepts and processes; use, development, analysis and style of algorithms involving a high level programming language; structured programming concepts.

Prerequisites: Computer programming experience and advisement or CpS 1031.

*Lipson, Malbrock, Zoll*

**CpS 2342 Dynamic Programming Techniques (3)**

Abstract data types, including components, domains and transforms. Transformational and data abstraction. Applications to computer structures, computer programs and non-standard types.

Prerequisite: CpS 2341.

*Lipson, Malbrock, Zoll*

**CpS 2351 Business Oriented Programming Techniques I (3)**

Higher level programming languages for commercial application. Emphasis on programming techniques and language structure. Additional topics: systems analysis, design and implementation, program definition, development and documentation.

Prerequisite: CpS 2342.

*Arnou, Bernstein, Rabinowitz*

**CpS 2352 Business Oriented Programming Techniques II**

Continuation of the topics discussed in CpS 2351 with emphasis on programming efficiency and multifile processing. Applications involving magnetic tape and direct access storage devices using index sequential files with random and sequential retrieving.

Prerequisite: CpS 2351 or equivalent.

*Arnou, Bernstein, Rabinowitz*

**CpS 2373 Scientific Programming (3)**

Emphasis on analyzing and programming scientifically oriented problems. Structured programming concepts and techniques employed with various compilers.

Prerequisites: CpS 2342 and Mat 2411.

*Giegerich, Lipson*

**CpS 2383 Computer Programming I (3)**

Concepts of functions and algorithms in writing and key-punching programs processed on an electronic digital computer. Flow-charting; single-loop and nested loop processes; arithmetic processes, fixed-point, and floating-point arithmetic and non-numeric values; iteration and approximations; and non-numeric repetitive processes as applied to numerous types of elementary mathematical problems.

Prerequisites: CpS 1031 and Mat 2411.

*Giegerich, Lipson*

**CpS 2384 Computer Programming II (3)**

Double precision, complex and logical values, predefined and written subroutines, n-dimensional arrays, subprograms, numeric, logical alphabetic, literal and blank data, mixed mode, indexing, and optimized programs used in intricate mathematical problems and non-mathematical problems.

Prerequisite: CpS 2383.

*Giegerich, Lipson*

**CpS 2390 Computer Assembly Language (3)**

Basic principles of assembly language; machine language format, input/output instructions, arithmetic statements; non-numeric, decision, and iteration procedures; subprograms, storage techniques, algorithmic designs, macros. Relationship to computer architecture; register configurations, central processor unit, storage facilities, and peripheral devices.

Prerequisites: CpS 2342, 2384 or permission of instructor.

*Santomauro*

**CpS 2440 Data Structures (3)**

Representation of external and internal data to a computer: stacks, lists, queues, strings, tree structures, storage systems of arrays, sorting, symbol tables, and applications that illustrate computer flow of information in solving problems.

Prerequisite: CpS 2342.

*Gordon, Malbrock, Santomauro*

**CpS 2679 Combinatorics (3)**

Fundamental representations and operations with fixed radix systems and residue systems. Applications to searching techniques, coding and switching theory and sort/merge operations.

Prerequisite: CpS 2341.

*Zoll*

**CpS 3100 Digital Circuitry Principles (4)**

Lecture and laboratory course emphasizing the theory and application of circuits, electronic devices as logic elements and the arrangement of integrated circuits in digital computer systems.

Prerequisite: Phy 3392, or IS 2502 or permission of instructor.

*Cokewood, Jahn*

**CpS 3250 Computer Operating Systems (3)**

An introduction to basic computer elements and logic design techniques employed in computer systems organization.

Prerequisite: CpS 2390.

*Deavours, Gordon*

**CpS 3310 Computer Programming Languages (3)**

A study of characteristics of programming languages and classifications: machine, procedure-oriented, numerical, scientific, business data processing, string and list grammars, multipurpose, control and basic compiler methods.

Prerequisite: CpS 2390.

*Zoll*

**CpS 3391 Advanced Assembler Language Programming (3)**

Assembly language instructions for multiple address and multiple register computers: indexing, bit manipulation, fixed and floating point arithmetic on two address machine, logical instruction repertoire, data structures at the machine level, core dumps and program debugging, subroutine and macro construction.

Prerequisite: CpS 2390 or permission of the instructor.

*Santomauro*

**CpS 3465 Problem Analysis and Solutions (3)**

Identification and analysis of scientific, business and/or research oriented problems. Sequential organization of computer oriented algorithms for efficient procedures involving minimization of computer time.

Prerequisite: CpS 2440.

**CpS 3498 Computer Security and Information Theory (3)**

Information and coding, measurement and transmission of information, redundancy, noise, data bank security in government and industry, computer network weaknesses, data encryption.

Prerequisite: CpS 2342 or 2384.

*Deavours*

**CpS 3962 Computer Based Accounting Systems (3)**

Development of Computer Based Accounting Systems; emphasis on design, testing and implementation of such systems. Topic will include programming and debugging techniques, storage media, file organization and system utilities.

Prerequisites: Acc 2200, CpS 2352 or permission of instructor.

*Arnou*

**CpS 4130 Data Communication Systems (3)**

A survey of machines and devices utilized to communicate with and retrieve information from a computer.

Prerequisite: CpS 3250.

**CpS 4200 Elements of Systems Programming (3)**

Computer structure, machine languages, specifications of registers, instruction codes, structure of assemblers, symbol tables for structures and techniques, macro operators, data-flow circuits, input/output control, and selected applications.

Prerequisite: CpS 3250.

*Zoll*

**CpS 4220 Compiler Construction (3)**

Techniques in analysis of a source language and the generation of an object code, construction aspects of a compiler, as well as programming applications to compiler design.

Prerequisite: CpS 4200.

*Santomauro*

**CpS 4760 Large-Scale Information Processing Systems (3)**

Data communication systems and networks; computer centers, information retrieval, real-time and time-sharing; procedures, programs, testing, documentation, and operation of components in integrated systems.

Prerequisite: CpS 3250.

**CpS 4980, 4981, 4982 Special Topics in Computer Science (3)**

Research study of areas in computer science influenced by contemporary developments as well as interests and needs of students majoring in computer science. A maximum of nine semester hours may be taken in this area towards major electives.

Prerequisite: Permission of instructor.

**CpS 4999 Cooperative Education in Computer Science (3)**

Practical field experience providing resources other than those within the college environment. These credits cannot be used towards the 39 credits of course work required for computer science majors.

Prerequisites: Minimum 15 hours in computer science selected from CpS 2351, 2390, 3100 and 2341, 2342, 2352, 2440, 3250; minimum 3.00 GPA in major; minimum 2.75 cumulative GPA; approval of advisory committee.

*Arnou, Santomauro*

**Courses for Non-Majors****CpS 3090 Personal Computing (3)**

Introduction to small computer systems for home and office. Topics include: BASIC language programming, microprocessor fundamentals, assemblers, machine language programming, file capabilities, dedicated applications, game design, graphics, current equipment availability. Hands on experience. Prerequisite: Prior computer background not required. Junior or senior status or permission of instructor.

*Deavours*

**CpS 3092 Introduction to Microcomputer Applications (3)**

Introduction and survey of microcomputer systems including manufacture, system structure, software and applications.

Prerequisite: CpS 3090.

*Deavours*

Medical Record Administration Courses

- MRA 2011 Introduction to Medical Record Profession (1)**  
Introduction to the profession of Medical Record Administration; its place in the health care system; educational requirements.  
Prerequisite: Sophomore standing.
- MRA 2013 Medical Terminology (3)**  
Word formation, derivations, and meanings of medical terms related to medical specialties health services, and health related fields with applications in the transcription of medical reports. (2 hr. lec./2 hr. lab.)  
Corequisite: Bio 2409 or permission of instructor.
- MRA 3111 The Medical Staff (1)**  
A comprehensive review of the organization of the responsibilities of a medical staff in various types of health care facilities.  
Prerequisite: Acceptance into MRA program.
- MRA 3112 Special Health Records (2)**  
A study of various types of non-hospital health facilities with an emphasis on their record-keeping systems. (1 hr. lec./2 hr. lab.)  
Prerequisite: MRA 3114.
- MRA 3114 Development and Retention of Medical Records (4)**  
A comprehensive study of the development and content of a medical record, the technical evaluation and completion, and the retention and storage of the record. (2 hr. lec./4 hr. lab.)  
Prerequisite: Acceptance into MRA program.
- MRA 3212 Health Statistics (2)**  
A comprehensive study of the principles of statistics applied to health data. Includes vital and other health statistics. (1 hr. lec./2 hr. lab.)  
Prerequisites: Mat 1016 and acceptance into MRA program.
- MRA 3314 Classifications, Indexes & Registries (4)**  
A study of the systems of classifications of diseases and operations of various medical and health organizations. (2 hr. lec./4 hr. lab.)  
Prerequisite: MRA 3114.
- MRA 3413 Fundamentals of Medical Science I (3)**  
An in-depth study of disease processes which affect the human body with applications to the operation of a medical information system.  
Prerequisites: Bio 2409, Che 1032, and MRA 2013.
- MRA 3423 Fundamentals of Medical Science II (3)**  
Continuation of MRA 3413 with emphasis on diseases of individual organs.  
Prerequisite: MRA 3413.

- MRA 3612 Directed Practice I (2)**  
Supervised learning experiences in medical record departments chosen according to the standards of the American Medical Record Association. (0 hr. lec./8 hr. lab.)  
Prerequisite: MRA 3314.
- MRA 4113 Legal Aspects of Medical Records (3)**  
A study of the importance of medical records as legal documents. Includes the legal aspects of hospital and medical staff organization, release of information and legal actions requiring evidence from medical records.  
Prerequisite: MRA 3114.
- MRA 4312 Quality Assurance (2)**  
The study of methods for the evaluation of the quality of patient care. (1 hr. lec./2 hr. lab.)  
Prerequisite: MRA 3314.
- MRA 4512 In-Service Education in Medical Record Department (2)**  
An identification of the functions of the medical record administrator for planning, conducting, and evaluating in-service education at the department level. (1 hr. lec./2 hr. lab.)  
Prerequisite: MRA 4612.
- MRA 4514 Organization and Management of a Medical Record Department (4)**  
An application of the principles of management to medical record administration. (2 hr. lec./4 hr. lab.)  
Prerequisite: MRA 4612.
- MRA 4523 Medical Record Administration Seminar (3)**  
An exploration of effective methods of identifying and solving specific types of problems encountered in the administration of medical record services. (1 hr. lec./4 hr. lab.)  
Prerequisite: MRA 4612.
- MRA 4612 Directed Practice II (2)**  
Supervised learning experiences in non-hospital health care facilities. (0 hr. lec./8 hr. lab.)  
Prerequisite: MRA 3612.
- MRA 4614 Management Affiliation (4)**  
Supervised learning experience with the registered record administration department head of an affiliated health care facility to gain experience in medical record department management. (0 hr. lec./8 hr. lab.)  
Prerequisites: MRA 4514, 4612.

Medical Technology Clinical Preceptorships

- ID 4877-4878 Medical Technology Clinical Preceptorship I & II (15,15)**  
Course offered at an affiliated medical technology program. Clinical preceptorship in medical technology for a period of one year. Instruction and clinical practice in clinical biochemistry, medical microbiology, clinical microscopy, hematology, immunohematology, immunoserology, management, records, instrumentation, radioisotopes, ethics and others.  
Prerequisites: Declared major in medical technology, acceptance by an affiliated MT program and consultation with the MT coordinator.
- ID 4879-4880 Cytotechnology Clinical Preceptorship I & II (15,15)**  
Course offered at an approved cytotechnology program. Clinical preceptorship in cytotechnology for a period of one year. Instruction and clinical practice in exfoliative cytology. Training in the microscopic study of normal and abnormal cells from body secretions and fluids, preparation and staining of cell smears, cytology of body organs, interpretation of stained cell smears for detection of malignant cells.  
Prerequisites: Declared major in medical technology; cytotechnology option; acceptance by an approved cytotechnology program; and consultation with the MT coordinator.
- ID 4881-4882 Histotechnology Clinical Preceptorship I & II (15,15)**  
Course offered at an approved histotechnology program. Clinical preceptorship in histotechnology for a period of one year. Instruction and clinical practice in the processing of body tissue sections by fixation, dehydration, embedding, sectioning, mounting and staining. Other special topics studied.  
Prerequisites: Declared major in medical technology; histotechnology option; acceptance by an approved histotechnology program; and consultation with the MT coordinator.

Occupational Therapy Courses

- OT 2400 Introduction to Occupational Therapy (3)**  
Introduction to profession of occupational therapy, its place in health care system, educational requirements; principles of rehabilitation and habilitation; consideration of ethical and legal aspects of occupational therapy. Field work requires placement in approved setting for 25 hours per semester.  
Prerequisite: Psy 1000.  
*Poolle*
- OT 3210 Clinical Conditions I: Psychosocial Dysfunctions (3)**  
Comprehensive study of major clinical conditions commonly treated in occupational therapy which impinge upon the patient's/client's capacity for psychosocial function. Emphasis placed on the probable effects of clinical conditions on the individual's ability to perform life tasks and activities through the life span and the role of the occupational therapist in treatment.  
Prerequisites: OT 2400, Psy 3540 and permission of program coordinator.  
Corequisite: OT 3410.  
*Oyer*
- OT 3211 Clinical Conditions II: Physical and Developmental Dysfunction (4)**  
Study of those pathological conditions commonly treated in occupational therapy which impinge upon the patient's/client's capacity for physical function.  
Prerequisites: OT 3410; Bio 3405 and permission of program coordinator.  
Corequisites: OT 3411; Bio 3406.  
*Poolle*
- OT 3301 Life Tasks and Activities Throughout the Life Span: I (2)**  
Life tasks and activities throughout the human developmental stages, prenatal to adolescent, within the framework of occupational performance (such as self care, work, play-leisure activities) and the performance components (such as motor, sensory-integrative, cognitive, psychological and sociological functions).  
Prerequisites: Bio 2409, FA 3921, Psy 3110 and permission of program coordinator. OT 3301 is prerequisite for OT 3302.  
*Poolle*
- OT 3302 Life Tasks and Activities Throughout the Life Span: II (2)**  
Continuation of life tasks and activities throughout the human developmental stages of young adulthood to death and dying within the framework of occupational performance (such as self care, work, play-leisure activities) and the performance components (such as motor, sensory-integrative, cognitive, psychological and sociological functions).  
Prerequisites: Bio 2409, FA 3921, Psy 3110, OT 3301 and permission of program coordinator. OT 3301 is prerequisite for OT 3302.  
*Poolle*
- OT 3410 Occupational Therapy Theory I: Psychosocial Dysfunction (3)**  
Description of the components and principles of the occupational therapy treatment process, emphasizing components of theory and practice within a theoretical frame of reference. Theories analyzed are: objects relations analysis, action-consequence, developmental, sensory-integration and occupational behavior as they relate to the treatment of patient/client with psychosocial dysfunction.  
Prerequisites: OT 2400, Psy 3540 and permission of program coordinator.  
*Oyer*
- OT 3411 Occupational Therapy Theory II: Physical and Developmental Dysfunction (4)**  
Problem-solving approach to selected occupational therapy theories and treatment approaches for the patient/client with physical and developmental dysfunction. Provides basic knowledge, understanding and skill in the application of principles and processes of treatment evaluation, planning and implementation. Lecture and laboratory.  
Prerequisites: OT 3301, 3302, 3410; Bio 3405 and approval of program coordinator.  
Corequisites: Bio 3406; OT 3211.  
*Poolle*
- OT 3610 Activity Group Process (3)**  
Comprehensive study of the concepts and principles of activity groups as applied in the practice of occupational therapy. Focus on role and function of occupational therapist in promoting, influencing or enhancing psychosocial function or remediating dysfunction in a group context. Development of basic skills in evaluation and implementation of activity groups. Development of personal and professional awareness in an interactional context. Lecture, laboratory and field experiences.  
Prerequisites: OT 3410, 3302 and permission of program coordinator.  
*Oyer*

- OT 4301 Basic Orthotics, Prosthetics and Adaptive Equipment (1)**  
Principles and biomechanical considerations using splints, prostheses and adaptive equipment; studying materials/component parts and training in their use; fabrication of splints and adaptive equipment. Lecture and laboratory.  
Prerequisites: OT 3211, 3411.  
Corequisite: OT 4921.  
*Glasser*
- OT 4510 Supervision and Administration in Health Care Settings (2)**  
Principles of supervision and administration as applied in health care settings. Administrative roles and responsibilities, including that of supervisor are explored with emphasis on problem solving.  
Prerequisites: OT 3410, 3411 and permission of program coordinator.  
*Poolle*
- OT 4610 Introduction to Research for Occupational Therapy (2)**  
Concepts and methodologies of scientific research as related to occupational therapy. Relationship to clinical practice will be stressed. (Students will propose and implement a mini-research study.)  
Prerequisites: OT 3410, 3411, Psy 3200.  
*Kramer*
- OT 4920 Seminar in Occupational Therapy I: Psychosocial Dysfunction (6)**  
Concepts, principles and objectives of occupational therapy as applied in the treatment of psychosocial dysfunction. Development of basic skills in observation, interviewing, evaluation, therapeutic relationships and program planning with client/patient. Clerkship experience requires placement in approved setting for eight hours per week.  
Prerequisites: OT 3210, 3410, 3610 and permission of program coordinator.  
*Oyer*
- OT 4921 Seminar in Occupational Therapy II: Physical Dysfunction (6)**  
Concepts, principles and objectives of occupational therapy as applied in the treatment of patients/clients with physical dysfunction. Evaluation, treatment planning, and treatment implementation. Clerkship requires placement in approved setting for eight hours per week.  
Prerequisites: OT 3211, 3411; Bio 3406 and permission of program coordinator.  
*Glasser*

**OT 4922 Seminar in Occupational Therapy III: Developmental Dysfunction (4)**

Concepts, principles and objectives of occupational therapy as applied in the treatment of patients/clients with developmental dysfunction. Evaluation, treatment planning and treatment implementation. Independent research project required.

Prerequisites: OT 3211, 3411; Bio 3406 and permission of program coordinator.

Kramer

**OT 4930 Advanced Fieldwork Seminar: Psychosocial Dysfunction (3)**

A three month full-time placement in a psychosocial dysfunction affiliation center selected according to American Occupational Therapy Association guidelines. Practical laboratory, lectures, supervision, and group sessions. Completion of OT 4930 and 4931 required to take A.O.T.A. registry examination. Prerequisites: OT 4920 and permission of program coordinator.

**OT 4931 Advanced Fieldwork Seminar: Physical Dysfunction (6)**

A three month full-time placement in a physical dysfunction affiliation center selected according to American Occupational Therapy Association guidelines. An additional affiliation in developmental dysfunction, hand, or other specialty is optional. Practical laboratory, lectures, supervision, and group sessions. Completion of OT 4930 and 4931 required to take A.O.T.A. registry examination. Prerequisites: OT 4921 and permission of program coordinator.

**OT 4933, 4934, 4935 Advanced Fieldwork Experience (1,2,3)**

A full-time placement for one, two or three months in a fieldwork setting selected according to American Occupational Therapy Association guidelines. Clinical experience in one or more of the following areas: administration, burns, cardiac rehabilitation, children's psychiatry, developmental dysfunction, gerontology and hand rehabilitation. Scheduling determined on individual basis. Course may not be counted toward degree requirements.

Prerequisites: OT 4930 or 4931 and permission of program coordinator.

## Nursing Courses

**Nurs 3000 Conceptual Models for Professional Practice in Nursing (3)**

Discussion of evolution of nursing theory with reference to selected works of major theorists. Classroom implementation of a conceptual model for nursing practice with focus on nursing process as a recurring component in all nursing models.

Prerequisites: Acceptance into the Nursing Program or permission of the chairperson.

**Nurs 3100 Professional Nursing Practice with the Well Family (5)**

Continued study of nursing models and application of relevant theories in clinical practice of the nursing process to assist essentially well families to maintain and promote health. Focus on expanding knowledge and skills requisite to comprehensive nursing assessment of the family as the basis for planning, implementing and evaluating nursing interventions in clinical experience. Attention to concepts of health, holism, and to maturational crises as well phenomena.

Prerequisite: Nurs 3000.

Pre- or corequisite: Phy 1001.

**Nurs 3300 Issues in Professional Practice (3)**

In-depth analysis of contemporary issues in nursing capitalizing on student knowledge and experience. Dialogical and dialectical approaches facilitate development of critical thinking skills and active participation in guiding outcomes of current issues.

Prerequisite: Acceptance into the nursing program or permission of chairperson.

**Nurs 3900 Research in Nursing (3)**

Introduction to systematic investigation of nursing problems includes historical overview of research in nursing and current research priorities. Classroom practice in critiquing research reports, applying findings, and using elements of the research process.

Prerequisites: Nurs 3000 and Mat 1016.

**Nurs 4000 Professional Nursing Practice with the Family in Crisis (5)**

Application of systems theory as basis for health team collaboration and client advocacy in the health care delivery system. Focus on expanding knowledge and skills requisite to intervening in family health crises, including delegation and supervision of implementation of nursing orders. Special emphasis on planning and evaluation phases of nursing process, and leading conferences as leadership strategy or nursing team.

Prerequisites: Nurs 3100, 3300, Psy 3110, Soc 2100.

Pre- or corequisites: Nurs 3900, MgS 3030.

**Nurs 4100 Professional Nursing Practice in Chronic Health Problems (5)**

Intensive study of chronicity as it affects the individual, family and community. Development of knowledge and skill requisite to intervening in clients' management of chronic health problems with emphasis on client groups as modality of care. Refinement of advocacy role in full implementation of functions of teaching, counseling, coordinating, leading, and facilitating change with clients.

Prerequisite: Nurs 4000.

Pre- or corequisites: Psy 3630, HEd 3635.

**Nurs 4900 Independent Practicum in Nursing (2)**

Concluding course in which students integrate knowledge gained to select, develop, and implement projects with clinical nursing foci. Emphasis on facilitating students' transition to role of baccalaureate prepared nurse practitioners, and preparing them for future roles in professional nursing practice.

Pre- or corequisite: Nurs 4100, Phi 3314.

## Physical Therapy Courses

**PT 3000 Dynamics of Physical Therapy Praxis I (6)**

Orientation to physical therapy practice. Biomechanics, basic patient treatment skills, massage, hydrotherapy, exercise, basic safety and patient management, evaluation skills. Prerequisite: Permission of instructor.

**PT 3001 Dynamics of Physical Therapy Praxis II (6)**

Aspects of kinesiology—functional and dysfunctional—with clinical correlations; written communication in physical therapy. Practice clinical skills in exercise, basic gait and functional training; basic evaluation skills. Prerequisites: PT 3000, 3200, 3900; STM 3150 and permission of instructor.

Corequisite: PT 3500.

**PT 3200 Communities in Health Care (3)**

The medical model and alternative interpretations of health, illness and therapeutic intervention; theories and practices of health care services in the contemporary Western world; selected Eastern influences and related health care practices. Focus on diversity and complexity of the therapeutic relationship as it is influenced by consciousness of self, time, space, body, illness and therapy.

Prerequisite: Permission of instructor.

**PT 3500 Clinical Medicine I (3)**

Clinical medical specialties (including cardiology, rheumatology, orthopedic surgery, cardiopulmonary surgery, neurosurgery, neurology, rehabilitation medicine, primary care and community health).

Prerequisites: PT 3000, 3200; STM 3510 and permission of instructor.

Corequisite: PT 3001.

**PT 3501 Clinical Medicine II (3)**

Essential pathological processes, conditions and manifestations in relationship to their influences on the patient's capacity for body movement and independent living.

Prerequisites: PT 3001, 3500; Bio 3406; PEd 3510 and permission of instructor.

Corequisite: PT 4002.

**PT 3900 Human Gross Anatomy for Physical Therapists (6)**

Advanced study of structure of human body; structural interrelationships as basis for function, dysfunction, therapeutic intervention. Emphasis on neuromusculoskeletal integrations.

Prerequisites: Bio 2409 and permission of instructor.

Corequisite: PT 3000.

**PT 4002 Dynamics of Physical Therapy Praxis III (4)**

Rehabilitation techniques and equipment, aspects of human motor development from birth to death integrated with neurodevelopmental sequence and techniques evolving from this orientation. Advanced analysis of human locomotion, gait training, advanced evaluation techniques.

Prerequisites: PT 3001, 3500; Bio 3406; PEd 3510 and permission of instructor.

Corequisite: PT 3501.

**PT 4003 Dynamics of Physical Therapy Praxis IV (6)**

Advanced analysis, integration and synthesis of physical therapy practices introduced in PT 3000, 3001, 4002; administration and supervision; joint evaluations; full time clinical affiliation; implementation of clinical investigation project planned in PT 4600.

Prerequisites: PT 3501, 4002, 4600, 4705, 4710.

Corequisite: PT 4900.

**PT 4200 Physical Therapy Praxis in the Health Care Community (3)**

Physical therapy practice as a community of individual practitioners participating in and influencing the health of individuals through pragmatic therapeutic interrelationships. Interpretations of the physical therapist and physical therapy practice through consideration of oneself as a physical therapist vis-a-vis the patient and the community of health care in contemporary America.

Prerequisites: PT 3501, 4002, 4600, 4705, 4710 and permission of instructor.

**PT 4600 Clinical Investigation in Physical Therapy Praxis (3)**

Concepts, methodologies and terminology of clinical investigation and their meaning for physical therapy practice. Clinical research design and critical scrutiny emphasized. Students plan a clinical investigation project to be implemented and reported during the next semester.

Prerequisites: PT 3900, 3001, 3500; PEd 3510; Bio 3406 and permission of instructor.

Corequisite: PT 4710.

**PT 4705 Innovations in Physical Therapy Praxis (3)**

Advanced study of assessment and/or treatment technology utilized in physical therapy practice.

Prerequisites: PT 3001, 3500; Bio 3406; PEd 3510 and permission of instructor.

**PT 4710 Scientific Assessment of Human Motion (3)**

Neurophysiological principles underlying human motion. Application of principles of assessment of motion and choice of appropriate neurophysiological techniques to improve the quality of motion.

Prerequisites: PT 3001, 3500; Bio 3406; PEd 3510 and permission of instructor.

Corequisites: PT 4002, 4600.

**PT 4800 Physical Therapy Seminar (3)**

Student directed seminar; student selected topics derived from self and program evaluation, clinical experience and clinical investigation project in PT 4600.

Prerequisites: PT 4002, 4500, 4600, 4705, 4710 and permission of instructor.

Corequisite: PT 4003.

**PT 4900 Directed Study for Physical Therapists (2)**

Special interest topics selected by students for directed, independent study with physical therapy faculty.

Prerequisites: PT 3501, 4002, 4600, 4705, 4710 and permission of instructor.

Corequisite: PT 4003.



## Interdisciplinary Courses

### College Orientation

**ID 1000 College Careers and Choices (3)**  
The purpose of higher educational and potential roles of an individual student within the college environment. Orientation to academic, social and career coping skills necessary for successful adjustment and for maximizing individual potential. Open to freshmen only. Grade on pass/fail basis.

**ID 1001Z Freshman Seminar (1)**  
Development of the student's confidence and skills in using academic, social, and career development knowledge and techniques for success. Open to freshmen only. Graded on pass/fail basis. Credit will not be granted for both ID 1000 and 1001Z.

### Allied Health Professions

**ID 1050 Orientation to Allied Health Professions (3)**  
Overview of the health care delivery system in the United States emphasizing the interrelationships among health care personnel and patients.

**ID 1225 Critical Issues and Values of Contemporary Health (3)**  
Contemporary health issues and health-related problems and exploration of selected resources/strategies designed to advance individual, familial, and community health.

### Education and Human Services

**ID 1200 Introduction to Motor Learning (3)**  
Identifies factors affecting learning and performance; theories of motivation; development and learning as they pertain to the teaching of motor skills; motor skill development in relation to open and closed skills at the learner's stage of acquisition.

**ID 1220 Introduction to the Human Services for Social Workers in Early Childhood Settings—Level I (3)**  
A course for social service workers in early childhood settings.

**ID 2200 Teacher, School and Society (3)**  
Introduction to the practice of teaching, the profession of teacher, and the functioning and the functions of schools.

**ID 2220 Introduction to the Human Services for Social Workers in Early Childhood Settings—Level II (3)**  
A skill-development course for social service personnel working with families and children in early childhood settings.  
Prerequisite: ID 1220.

**ID 2252 Introduction to Psychology of the Handicapped**  
The psychology of mental and physical disabilities; degrees of retardation—their causes and the concomitant disorders of behavior; and emotional and social adjustment of the physically handicapped. The psychological basis for appropriate education and care of all types of handicaps.

**ID 3200 The Family as Educator (3)**  
Exploration of the ways members of families educate each other and the outcomes of these efforts. Emphasis on the development of skills for observing, recording, and analyzing family educational interactions.  
Prerequisite: SOC 1000, 2100

**ID 3201 Educational Psychology (3)**  
Aspects of psychology which apply to teaching tests and measurements, thinking, and motivation. Analysis of the learning process, its theoretical foundation and its application.  
Prerequisite: PSY 1000 or PSY 2100, 2110, 3110, 3120, 3130.

**ID 3202 Understanding Parenthood**  
To help potential parents, parents of young children and those working with parents extend their parenting understandings and skills.  
Prerequisite: Psy 2100.

**ID 3204 Foundations of Reading: Theory and Process (3)**  
Theory and process applicable to learning to read and reading to learn. Major focus is on developing relevant skills, understandings and competencies in the developmental nature of the reading process. Emphasis is placed on readiness for learning to read, decoding and comprehension.

**ID 3251 Foundations of Bilingual Education (3)**  
Examination of the history, legislation and concepts of bilingual education throughout the nation and neighboring countries.

**ID 4051 Art for the Exceptional Child (3)**  
Application of theories of art, special education and related disciplines within educational settings for the exceptional child.  
Prerequisite: Undergraduate degree in one of the following: art, special education, psychology or equivalent as determined by instructor.

**ID 4200 Developing Competencies in Interdisciplinary Teamwork in the Human Services (3)**  
Training in the development of competencies to assure effective functioning as a member of an interdisciplinary team in the human services. The interdependent contributions of several relevant disciplines to enhance client service and professional growth.  
Prerequisites: Permission of relevant department chairperson. Concurrent registration in a practicum, student teaching or field work placement.

**ID 4201 Group Dynamics (3)**  
Principles of group function including types of groups, group structure, communication, leadership, membership, methods of studying groups, and techniques of working in groups and with groups. Designed for students who wish to study group processes as related to work in education, recreation, and other fields. Attendance is required.  
Prerequisite: A course in psychology.

**ID 4203 Foundation in Content Reading: Theory and Process (3)**  
Theory and process applicable to reading among adolescents. Major focus is on developing relevant skills, understanding and competencies in the developmental nature of the reading process.

**ID 4205 Evaluation in Physical Education (3)**  
Approaches to testing and evaluation, basic statistical concepts, the construction of skills and knowledge tests, and evaluation in the affective domain.

**ID 4220 Adult Protective Services (3)**  
An investigation into selected issues dealing with the vulnerable adult and the frail and older adult. Examines the emergence of this heterogeneous population as an individual, family and community problem and provides the beginning skills for understanding the individual's needs and rights based on the framework of adult protective services as a philosophy and as a social service.  
Prerequisite: SW 2900 or HEd 3325 or permission of instructor.

**ID 4240 Understanding Family and Community Involvement in Education (3)**  
For pre-service teachers and teachers in nurseries, pre-school and infant care centers, kindergarten, and primary grades to develop the knowledge, attitudes, and techniques necessary for building productive relationships with parents and community.

**ID 4250 School & Society: Cultural, Minority & Urban Perspectives (3)**  
Provides a theoretical and historical base for understanding educational needs found in multicultural school environments. Focuses on urban schools where policy issues related to school district size and economic stress factors pose special challenge. Activities include readings, films, field experience, simulations, lectures and discussions.  
Prerequisites: Sophomore Field Experience.

**ID 4251 Bilingual Child: Language and Culture (3)**  
Examination of the experiential background, the cultural heritage and the resultant attitude of the bilingual-bicultural child. Study of socio-linguistics, including the development of a vocabulary of idiomatic expressions in Spanish designed to facilitate the prospective bilingual teachers' communication with Spanish-speaking children, parents, and communities.

**ID 4252 Bilingual Child: Problems of Adjustment to American Society (3)**  
Examination and analysis of the multiple and varied types of adjustments the bilingual-bicultural child makes in the process of adapting to American schools and society.

**ID 4253 Orientation in Psychological Testing (3)**  
Overview of clinical tests and other assessment techniques used in special education. Introduction to construction and validation of instruments. Practice in the administration of supervised tests to provide familiarity with the behavior of handicapped individuals in test situations.  
Prerequisites: Spe 2051.

**ID 4279 Teaching Seminar and Practicum (6)**  
Twenty to thirty days of supervised teaching and seminar on school policies, organization and curriculum and on student population.

### Environmental Studies

**ID 3101-3102 Seminar in Environmental Studies I & II (1,1)**  
Correlation of the concepts and approaches of the concerned disciplines, the natural sciences, political science, economics, sociology and others, to environmental problems. 3101 is prerequisite to 3102.

**ID 4101-4102 Seminar in Environmental Studies III & IV (1,1)**  
A problem oriented seminar in environmental studies in which solutions to a current environmental problem will be proposed after research and analysis. 4101 is prerequisite to 4102.  
Prerequisite: ID 3102.

### Humanities

**ID 2051 Arts and Crafts in Therapeutic Recreation (3)**  
An introduction to the development of arts and crafts programs for therapeutic recreation settings. Includes concepts relating to the design and delivery of recreation program activities which enhance the creative abilities of disabled persons and promote their growth and development.

**ID 3010 Philosophy in Literature (3)**  
A collaborative interdisciplinary course in the English and Philosophy Departments whose aim is to analyze works of literature in terms of philosophical issues: identity, human nature, creativity, meaning, the limits of life, freedom and God.

**ID 3100 Greek and Roman Mythology (3)**  
A study of the myths of the Greeks and Romans with emphasis on historical origins, functions and means of expression and transmission.  
Prerequisite: Junior status or permission of instructor.

**ID 3312 Technology and Human Destiny (3)**  
An analysis of the consequences and problems involved in the development of modern technology; the impact of technology on modern culture.

**ID 3315 Ethics and Public Policy (3)**  
Examination of basic moral and philosophical theories which function as guidelines in the development and evaluation of public policies. Special attention is given to formulating policies in the areas of welfare, family planning, health distribution and national defense.  
Prerequisites: One course in philosophy and one course in public administration or political science, or permission of instructor.  
*D'Souza*

**ID 3600 The Romance of Words (3)**  
Designed to excite students' interest in the understanding of and enthusiasm of words, their origin, development and use. Course conducted in English. Not for credit in a foreign language major. Not acceptable for language requirement in the English Department or as a departmental elective of English majors.

**ID 3660 Continental and American Realism (1850-1900) (3)**  
An examination of the aesthetic theories and practices of Flaubert, Zola, Turgenev, Verga, Howells and James.  
*J. Bauer*

**ID 3700 Survival of Classical Mythology in Art (3)**  
Survey of Greco-Roman myths and their transformations in art from antiquity through the Renaissance.  
Prerequisite: ID 3100 or permission of instructor.  
*Lord*

**ID 3810 Economics of Collective Bargaining (Private Sector) (3)**  
The economic nature of the collective bargaining system in the United States and the parties who have a vital interest in the operation of the system. Deals with formal organizations designed to represent the interest of employers, workers and the general public and presents historical background on the unions and collective bargaining.  
Prerequisite: Eco 3800 or permission of instructor.

**ID 3900 Interdisciplinary Seminar on Futurism (3)**  
Emphasis placed upon integrating a wide variety of approaches and a number of disciplines focused on problems and prospects of the future. Each student pursues an appropriate project, the results of which may be expressed through a paper, film, recording or the use of other suitable media, for presentation to the seminar. Areas of special concern: computer technology and its application to learning and planning; current brain research; social change; biological breakthrough; ecological planning.  
*Didsbury*

**ID 4001 Myth and Symbolism in Pre-Hispanic Mexico (3)**  
Examination of the myths, spiritual concepts and symbolism of the peoples that developed the great civilizations of Pre-Columbian Mexico.  
Prerequisite: Junior status or permission of instructor.

**ID 4002 Egyptian Mythology (3)**  
An examination of the Egyptian mythological concepts and systems.  
Prerequisite: Junior standing or permission of instructor.  
*Socarras*

**ID 4100 China During the Age of Confucius (3)**  
Ancient China from late neolithic early imperial times with special emphasis on the Eastern Chou period (770-221 B.C.) An interdisciplinary approach to the history, geography, art, written tradition and archaeology of China in this early period of its development.  
Prerequisite: Junior status or permission of instructor.

## COLLATERAL PROGRAMS

**ID 4200 The Victorian Age, 1837-1901 (3)**  
An interdisciplinary approach to the history, art, constitutional developments, philosophical thought and scientific advances of the Victorian period.  
Prerequisite: Junior status or permission of instructor.

**ID 4850 Interrelating the Arts (3)**  
Interrelationships of form and content in the expressive arts, studied through personal involvement in the visual arts, dance, music and drama.  
Prerequisites: Two courses in the areas of art, music, dance or drama.

**ID 4900 Adventures in Ideas (3)**  
An interdisciplinary approach to understanding significant and novel ideas, problems and insights of contemporary planetary civilization. The "adventures interrelate and/or extend beyond the generally established academic and scientific areas of specialization. Encouraged and guided by outstanding thinkers and creators, participants engage in adventures in mind, heart, eye and ear; adventures in space and time; adventures in the past, present and the future."

### Marketing/Communications

#### **ID 4500 Seminar in American Business Issues (3)**

Exposition and critical analysis of controversial issues currently facing the American business system. Opposing viewpoints on topics such as inflation, profits, business ethics, government regulation, and energy policy examined. Advocacy lectures by guest speakers.  
Prerequisites: 3.0 G.P.A., at least junior standing; 12 credits from among economics, management science, political science and/or public administration and permission of instructor.

#### **ID 4545 Marketing Communications Workshop (3)**

An interdisciplinary course involving marketing (management science), media studies (English) and visual communications (fine arts). Groups from the three disciplines work as a team to plan and evaluate a unified marketing communications program for an institution. May be repeated once for credit.  
Prerequisite: Permission of instructor.

An interdisciplinary collateral program may be taken to complement or augment a major program of the College. Each draws on the faculties of various departments within the three schools of the College.

### SCHOOL OF EDUCATION, TECHNOLOGY, AND RELATED PROFESSIONS

#### **Collateral Program: Adult Fitness in Business and Industry**

The number of fitness programs in business and industry has increased over the past few years and has opened new areas for employment of physical education majors. The following program is for students interested in working in such programs.

#### **Required Courses**

MgS 2030	Business Organization and Management	3
Psy 3120	Adult Psychology	3
PEd 3500	Care and Prevention of Athletic Injuries	3
PEd 3510	Physiology of Exercise	3
HED 3600	Nutrition	3
HED 4231	First Aid Instructor Course	3
PEd 4625	Organization and Administration of Adult Fitness Programs	3
PEd 4626	Prescriptive Exercise Programming	3
PEd 4627	Internship in Adult Fitness	3

#### **Collateral Program: Athletic Coaching**

Coaches in public schools must be certified teachers. Coaching competency is developed through completion of all of the following courses. Contact the department for further advisement.

#### **Required Courses**

Bio 2402	Human Anatomy and Physiology	4
ID 1200	Introduction to Motor Learning	3
PEd 2300	Scientific Principles of Coaching	3
PEd 2500	Introduction to Biomechanics	3
PEd 3500	Care and Prevention of Athletic Injuries	3
PEd 3505	Kinesiology	3
PEd 3510	Physiology of Exercise	3
PEd 4620	Administration of High School Athletics	3

*Select 3-6 semester hours from the following group:*

PEd 3305	Coaching and Officiating of Swimming	3-6
PEd 3310	Coaching and Officiating of Baseball	
PEd 3315	Coaching and Officiating of Basketball	
PEd 3320	Coaching and Officiating of Field Hockey	
PEd 3325	Coaching and Officiating of Football	
PEd 3330	Coaching and Administration of Tennis Competition	
PEd 3340	Coaching and Officiating of Volleyball	
PEd 3350	Coaching and Officiating of Soccer	

#### **Collateral Program: Athletic Training**

Students can prepare for the National Athletic Trainers' Certification examination by taking all of the following courses. See the department for advisement.

#### **Required Courses 45**

Bio 2402	Principles of Human Anatomy	4
Bio 3405	Gross Anatomy	4
PEd 2500	Introduction to Biomechanics	3
PEd 3500	Care and Prevention of Athletic Injuries	3
PEd 3501	Advanced Athletic Training	3
PEd 3502	Clinical Experiences in Athletic Training I	3
PEd 3503	Clinical Experiences in Athletic Training II	3
PEd 3504	Therapeutic Modalities in Athletic Training	3
PEd 3505	Kinesiology	3
PEd 3510	Physiology of Exercise	3
PEd 4600	Adapted Physical Education	3
HED 3600	Nutrition	3
Psy 1000	General Psychology	3
<i>Select one of the following:</i>		
Psy 2100	Child Psychology	3
Psy 2110	Psychology of Adolescence	
Psy 3630	Social Psychology	
Psy 4360	Physiological Psychology	
<i>Select one of the following:</i>		
ID 1225	Contemporary Issues in Health	2 or 3
HED 3537	School and Community Health Programs	3
HED 4650	Community Health Counseling	2
		3

#### **Collateral Program: Career Education for the Handicapped**

Coordinator: Dr. Barnhart

Collateral designed for students in Industrial Arts and Teacher of the Handicapped who desire special training in Career Education for the Handicapped.

#### **Required Courses 12**

IS 4111	Exploring Special Education—Industrial Arts/Vocational Education	3
IS 4112	Basic Manufacturing and Packaging Techniques	3
SpE 3161	Career Education for the Handicapped	3
SpE 4161	Practicum in Career Education for the Handicapped	3

#### **Required Courses 9 FOR TEACHER OF HANDICAPPED MAJORS**

IS 3301	Woodworking for the Non-Major	3
<i>Two of the following selected with advisement:</i>		
IS 1200	Elements of Drafting	6
IS 1300	Elements of Electronics	
IS 1400	Elements of Metalworking	
IS 1600	Elements of Graphics	
IS 1700	Elements of Power	
IS 4001	Technology for Children	
<b>FOR INDUSTRIAL ARTS MAJORS</b>		
ID 2251	Introduction to Psychology of the Handicapped	3
SpE 3050	Mainstreaming—Process and Techniques	3
ID 4253	Orientation in Psychological Testing	3

#### **Collateral Program: Developmental Disabilities**

Coordinator: B. Calloway

This interdisciplinary collateral program has been designed to prepare students with the knowledge and skills necessary to work in the growing network of programs for the developmentally disabled. Students are prepared to function in a variety of direct service roles or as a beginning manager.

The program is appropriate for majors in special education, speech, hearing, early childhood education, social work, psychology and other allied majors. Also eligible for those seeking continuing professional education.

#### **Required Courses**

SpE 1052	Introduction to Psychology of the Handicapped	3
SpE 2157	Introduction to the Severely/Multiply Handicapped	3
Bio 2402	Human Physiology and Anatomy*	4
Ed 3610	Child Advocacy: Implications for Helping Practitioners	3
Psy 3110	Life Span Psychology	3
ID 4200	Developing Competencies in Interdisciplinary Teamwork	3
SpE ----	Field Study in Developmental Disabilities†**	3

\*Certain majors have similar coursework within their programs and may substitute an equivalent course with advisement.

\*\*Course in development.

†Social work students are required to take supervised field-work courses and with advisement of both departments may substitute an equivalent course for this requirement.

#### **Collateral Program: Family Studies**

Coordinator: M. Kelly

The Family Studies program is open to students majoring in Early Childhood Education, Special Education, Psychology, Sociology or Social Work. Students in other majors are admitted by permission of the Department of Early Childhood and Family Studies. The program is designed to develop the understanding and skills which will enable individuals to fulfill their roles as family life educators in school, community and agency settings.

#### **Required Courses 15**

EC 3610	Child Advocacy: Implications for Helping Practitioners	3
EC 3800	The Family as Educator	3
EC 4325	Practicum: Educational Implications for Serving Families	6
Soc 2100	Sociology of the Family	3
<i>Electives selected with departmental advisement</i>		
		9

**Collateral Program:  
Bilingual Education**

Coordinator: V. Ortiz

This program is offered to students interested in teaching children whose native language is other than English. It is usually taken in conjunction with a teacher education major and provides eligibility for a bilingual-multicultural endorsement on the teaching certificate. The senior student teaching experience is in a bilingual-cultural setting which must be specified when the student teaching assignment is requested.

Students must plan their program to insure dual language proficiency. Before being certified, the candidate will have to pass the Language Proficiency Test in both languages of instruction. This test is administered by the Center for Bilingual Education. A series of language courses is prescribed, if necessary, including the following: For native speakers of English Sp 2101-2102; Intermediate Spanish I and II; and Sp 1300 Advanced Spanish Composition or Sp 3105 Advanced Spanish Conversation.

For native speakers of Spanish English 1000-1001 English as a Second Language I and II and Eng 1002-1003 Writing in English I and II and/or Eng 1004 Conversational English, Eng 1005 English Pronunciation, Eng 1006 Intensive Writing.

**Required Courses 18**

ID 3251	Foundations of Bilingual Education	3
ID 4251	Bilingual Child: Language and Culture	3
ID 4252	Bilingual Child: Problems of Adjustment to American Society	3
ICA 3410	Teaching Techniques for Bilingual-Bicultural Schools	3
ICA 3420	Theory and Practice of Teaching English as a Second Language I	3
ICA 4410	Language and Reading Skills in Bilingual-Bicultural Schools	3
<i>Two of the following selected with advisement:</i>		
CS 3410	Sociolinguistics and Reading	3
EdP 3802	Educational Psychology of the Disadvantaged Urban Child	3
Eng 3101	Introduction to Linguistics	3
Eng 3105	Language, Meaning and Human Behavior	3
ID 4250	School & Society: Cultural Minority & Urban Perspectives	3

**Collateral Program:  
Gerontology**

Coordinator: R. Famighetti

This interdisciplinary program in gerontology can be taken as a concentration in addition to an academic major or as a program of additional professional training for qualified students. A certificate is awarded upon successful completion of the program which is administered through the Department of Early Childhood and Family Studies. Those who wish to enroll in a program of continuing professional education may be admitted at the beginning of each semester.

The program prepares students to offer direct services or serve as beginning administrators. Practitioners will enhance skills and knowledge for career ladder advancement.

**Required Courses 15**

HEd 3700	Basic Concepts and Issues in Gerontology	3
Psy 3130	Psychology of Aging	3
Soc 4350	Sociology of Aging	3
Bio 3450	Biological Aspects of Aging	3
HEd 4750	Practicum in Gerontology	3
<i>Electives three courses selected with advisement from the following:</i>		
EdP 4801	Group Dynamics	3
HEd 3725	Death in Perspective	3
HEd 4700	Seminar in Issues of Gerontology	3
HEd 4725	Human Sexuality in the Later Years	3
ID 4900	Adult Protective Services	3
Psy 3110	Life Span Developmental Psychology	3
Psy 3120	Adult Psychology	3
Rec 3720	Recreation and the Aged	3
Rec 4300	Recreation for Special Populations	3
Gero 3760	Aging and the Family	3
Gero 3780	Sem. Issues in Retirement	3
His 4383	History of the Caribbean World	3
Soc 2300	Racial and Cultural Minorities	3
Soc 2310	Sociology of Poverty	3
Sp 3240	Development of Puerto Rican Culture	3
Sp 4420	Twentieth Century Spanish-American Poetry	3
Sp 4425	Essay in Spanish-American Literature	3

**Collateral Program:  
Training and Development**

Coordinator: M. Hart

The program in Training and Development is for individuals who would like to be or already are involved in the orientation of new employees, upgrading of skills, updating of information, retraining, or supervisory development in the industrial-business sector. Students learn to design appropriate training and development programs, to communicate effectively and to utilize multi-media methods of instruction for adults.

**Required Courses 16**

EdP 3803	Educational Psychology of the Adult Learner	3
EdP 4901	Programs and Strategies in Training & Development	3
EdP 4902	Internship—Seminar in Training and Development	4
STM 2905	Public Speaking	3
LM 4700	Audio-Visual Media of Instruction	3
<i>Electives</i>		
To complete requirements—students select one course from each of the two groups below according to personal interest:		
<b>GROUP I</b>		
MgS 3030	Personnel Management	3
PA 3020	Public Personnel Administration	3
Psy 3400	Organizational Behavior	3
Psy 3340	Psychology of Women	3
<b>GROUP II</b>		
LM 4701	Planning and Producing Audio-Visual Materials	3
EdP 4808	Group Dynamics	3
Psy 4420	Industrial/Organizational Psychology	3
Eng 3096	Business, Professional and Technical Writing	3
IS 4910	Industrial Law	3

**SCHOOL OF HUMANITIES, SOCIAL AND ADMINISTRATIVE SCIENCES**

**Collateral Program:  
Afro-American Studies**

This program is offered to all students interested in an interdisciplinary approach to the Black experience in America. The program can be taken only in conjunction with a major academic curriculum and is set up individually for each student.

**Required Courses 12**

<i>Two courses from each group:</i>	
<b>HUMANITIES</b>	5-6
Eng 3200	Black American Literature
AH 3780	History of African art
Mus 2230	African Music Tradition
<b>BEHAVIORAL AND SOCIAL SCIENCES</b>	6
Eco 2900	Economics of Poverty
His 2500	Survey of African Pre-History and History
His 2510	Political History of Africa in the 20th Century
His 3305	History of the Black American to 1900
PS 3700	The Urban Political System: Politics and Problems
Soc 2300	Racial and Cultural Minorities
Soc 3150	Urban Sociology
<i>Electives (minimum) 6</i>	
EC 4210	Multicultural Education in the Early Childhood Years
EdP 3802	Educational Psychology of the Disadvantaged Urban Child
EPS 4050	Urban Education
EPS 4060	Education in the Non-Western World
Soc 2310	Sociology of Poverty
SW 3950	Introduction to Social Work
SW 3950	Methods of Social Work I
Any course listed in Required Areas (above) and not used to fulfill those requirements.	

**Collateral Program:  
Classical Studies**

Coordinator: M. Lewis

This program is designed to provide the student with a coherent view of the Classical World and its influence in the development of Western Civilization and to provide a strong background for students wishing to continue their education at the graduate levels.

**Required Courses 9**

Eng 3300	Ancient Greek and Roman Literature in Translation or Eng 3603 Honors Course in Greek and Roman Literature	3
His 3110	Greek Civilization	3
His 3120	Roman Civilization	3
<i>Electives 12</i>		
<i>four courses selected with advisement from the following:</i>		
AH 3700	Greek and Roman Art	3
His 1050	Origins of Political and Social Values	3
His 2120	World Archaeology	3
His 3120	The Ancient City	3
His 4110	The Roman Revolution	3
His 4120	Archaeology	3
His 4150	Athens in the age of Pericles	3
ID 3100	Greek and Roman Mythology	3
Phi 2200	Ancient Philosophy	3
PS 3200	Classical Political Theory	3

**Collateral Program:  
Urban Studies**

Coordinator: H. Furer

This program is conceived on broad interdisciplinary lines in order to provide comprehensive preparation for those interested in the study of American urban life. It may be taken in conjunction with any major academic curriculum and includes a one semester field experience internship in a city agency.

Most of the courses offered in the program have prerequisites. It is advisable, therefore, that prerequisite courses be taken with fulfilling general education requirements.

**Required Courses 9**

His 4361	History of the American City	3
His 4991	Field Work and Seminar in Urban Studies	6
<i>Electives to be selected with advisement for appropriateness to the student's major</i>		
		15

**Collateral Program:  
Judaic Studies**

Coordinator: J. Preil

**Required Courses 9**

<i>three courses selected from the following:</i>		
Heb 1101	-1102 Elementary Hebrew I & II or Heb 2101-2102 Intermediate Hebrew I & II	6
FL 3300	Masterpieces of Hebrew Literature or FL 3305 Masterpieces of Hebrew Literature II	3
FL 3310	Hebrew Culture I or FL 3315 Hebrew Culture II	3
His 3860	Jewish History I or His 3861 Jewish History II	3
His 3862	Modern Israel	3
PS 3418	The Arab-Israeli Conflict	3
Soc 3370	Sociology of the American Jewish Community	3
FL 3325	Holocaust Literature or ICA 40410 Teaching the Holocaust	3
<i>Electives 12 selected from upper division (3000 and 4000 level) courses with advisement</i>		

**Required Course 3**

ID 4---	Seminar in Judaic Studies*	3
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\*Course in development

**Collateral Program:  
Women's Studies**

Coordinator: S. Strauss

The program is designed to examine the basic assumptions and preconceptions society has made with respect to women and to explore alternatives to traditional roles and values.

**Required Courses 12**

HEd 3160	Health Perspectives for Women	3
His 4840	Women in History	3
His 4841	Women in the Modern Age	3
Psy 3340	Psychology of Women	3
<i>Electives four courses selected with advisement for appropriateness to the major academic curriculum</i>		
		12

## Collateral: Program for the Study of the Future

Coordinator: H. Didsbury Jr.

In broad outline, a program for the study of the future is based upon at least two major principles: an examination of the historical matrix which produced modern industrial civilization; recognition of the need to develop a sensitivity for anticipating consequences resulting from the expansion and sophistication of what has been variously termed "industrial civilization" or "the technological society."

The spirit which animates such a program is the conviction that an effort must be made to go beyond a command of mere knowledge and the ability to manipulate concepts and strive for the development of intuition and creative insight which ultimately finds fruition in concrete action. The emphasis throughout is upon flexibility and novelty. The trans-disciplinary character and professional expertise of the program is strengthened by the resources of an advisory council comprised of distinguished leaders in the academic, scientific, professional and business fields.

The program for the Study of the Future is designed to make it possible for students to acquaint themselves with the latest and most authoritative thought on the prospects before humanity on the threshold of the 21st century.

All students electing the collateral should be interviewed before formal admission into the program.



### Required Courses 9

His 4882	The Modern Scientific and Technological Impact on Culture	3
His 4870	Planning for Tomorrow Today: Alternative Futures	3
ID 3900	Interdisciplinary Seminar on Futurism	3
Electives	12	
<i>four courses from the following:</i>		
CpS 1931	Computer Arithmetic Algorithms	
Eco 2100	Economic Development	
EPS 4020	Philosophical Perspectives of Education in a Pluralistic Society	
Geo 2020	Conservation of Natural Resources	
HED 3325	Basic Concepts and Issues of Gerontology	
MgS 3130	Forecasting Techniques in Business and Economics	
MgS 4100	Operations Research	
Phi 3308	Values in Conflict	
PS 4600	Honors Seminar in Criminal Justice	
Psy 3630	Social Psychology	
Psy 4420	Industrial Psychology	
PA 3000	Public Management	
PA 3370	Administrative Issues in Energy	
Soc 4401	Social Change	
Eng 3090	Business, Professional and Technical Writing	

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## Collateral Program: Pre-Law

Coordinator: M. Israel

The following program is particularly recommended for students majoring in English, history, philosophy, psychology, political science or sociology who are interested in acquiring the background appropriate for entrance into law school. The collateral is also open to students in other majors.

Certain courses should be taken with the General Education requirements of the major, as follows:

### Humanities Cluster:

STM 1900	Speech	
Eng 2000	Writing About Literature	
Phi 1100	Philosophy	

### Sciences and Mathematics Cluster:

Mat 3247	Abstract Algebra	
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### Social/Behavioral Sciences and History Cluster:

Eco 1020	Principles of Economics I	
His 1050	Origins of Political and Social Values: Judeo-Christian-Classical Fusion	
Psy 1000	General Psychology	
Soc 1000	Social Life and Society	

### Required Courses 12

CS 1401	College Reading and Study Skills	3
One course	in Statistics	3
Phi 3307	Philosophy of Law	3
Acc 2200	Principles of Accounting I	3
Electives	15	
<i>select one course from each of the following 5 categories or substitute in each as recommended by the departments:</i>		
ENGLISH-SPEECH/THEATRE/MEDIA		
STM 2905, 2970	or other course in oral English	
HISTORY		
His 1061, 2303, 2304, 4321		
PHILOSOPHY		
Phi 2300, 2500, 3300, 3307, 3309, 3313		
POLITICAL SCIENCE		
PS 2100, 2110, 3130, 3150, 3151, 3250, 3680, 3685		
PSYCHOLOGY		
Psy 3540, 3630		

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## SCHOOL OF NATURAL SCIENCES, NURSING, AND MATHEMATICS

### Collateral Program: Environmental Studies

Coordinator: J. Mahoney

This program provides interdisciplinary background for students who would enter any field of industry, education or government in which environmental concerns arise. Of the total credits, 22 may be taken within the general education requirements. Other courses may be used to meet major requirements or electives.

### Required Courses 40-46

Bio 1000	Principles of Biology	4
Bio 3601	Environment, Ecology and Man or Bio 3614	
	Principles of Ecology	3/4
Eco 1020	-1021 Principles of Economics I & II	6
Met 1300	Introduction to Meteorology	4
ID 3101	-3102 Seminar in Environmental Studies I & II	2
ID 4101	-4102 Seminar in Environmental Studies III & IV	2
Phi 3303	Energy, Environment and Alternative Technology	3
PS 1010	-1020 Introduction to Politics I & II	6
Soc 1000	Social Life and Society	3
<i>One of the following: (3/4 sh)</i>		
Geo 1010	The Earth, The Environment of Man	3
Geo 2010	Geography of Man	3
Geol 1200	Introduction to Geology	4
<i>One of the following: (4/8 sh)</i>		
Che 1000	Principles of Chemistry	4
Che 1083	-1084 Chemistry I & II	8
Phy 1000	Principles of Contemporary Physics	4
Phy 2091	-2092 General Physics I & II	8
Electives	10	
<i>to be selected from courses outside the student's major, with advisement</i>		

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### Collateral Program: Geoscience Technology

The program in Geoscience Technology prepares students in the sophisticated techniques required for support positions in geoscience research. It can only be taken in conjunction with the major in earth science. It is recommended that the student use free electives to pursue areas in industrial technology in which he or she is interested or shows exceptional ability.

### Required Courses 41

Geol 3261	Mineralogy	4
Geol 3263	Structural Geology	4
Geol 3264	Invertebrate Paleontology	4
Geol 4263	Optical Mineralogy	4
Geol 4917	Geoscience Technology	4
IS 1200	Elements of Drafting	3
IS 2201	Technical Drafting	3
IS 1300	Elements of Woodworking	3
IS 1400	Elements of Metalworking	3
IS 1500	Elements of Electronics	3
IS 2500	General Electricity and Electronics	3
IS 3603	Black and White Photographic Reproduction	3

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### Collateral Program: Marine Sciences

A student must be enrolled as a major in biology, chemistry or earth science in order to take the collateral program in Marine Sciences. The New Jersey Marine Sciences Consortium Kean College of New Jersey, in cooperation with other colleges in the State, presents a program in the marine sciences at the Seaville and Sandy Hook field stations of the New Jersey Marine Sciences Consortium.

The Consortium was founded in 1969 to further the study of the marine environment in New Jersey. The Consortium has maintained several field stations, the latest and largest is at Seaville on the site of the former Palermo Air Force base. The field station enables the Consortium to offer courses, sponsor student and faculty research and provide a site for meetings, symposia, workshops and field work.

Residence, dining and recreation facilities are available.

Students may avail themselves of the summer course by registering through the member colleges following the regular summer school registration procedure. Courses vary each year; therefore, students are asked to consult the Consortium summer bulletin. Descriptions of courses are found in this catalog in the offerings of the Biology and Geology and Meteorology departments.

For more information, contact A. Lee Meyerson, Geology and Meteorology Department of F.W. Schuhmacher, Biology.

### Required Courses 20

Ocean 3453	Introduction to Oceanography	4
Bio 3000	Marine Biology	4
Ocean 4470	Physical Oceanography	4
Ocean 4455	Chemical Oceanography	4
Ocean 4454	Marine Geology	4

Electives 9  
*minimum of two advanced courses selected from the appropriate interest group:*

#### MARINE BIOLOGY

Bio \*4470, 3414, 3425, \*4415, 4455, \*3565, 3815

#### MARINE GEOLOGY

Geol 3263, 3264, 4263, 4265, 4266, ES 4953-4954,

ES 4963-4964

#### OCEANOGRAPHY

Che 2283, 3284, 3381-3382; Met 3370; Phy 4491, 4592

\*Taught at the Consortium Field Station only.

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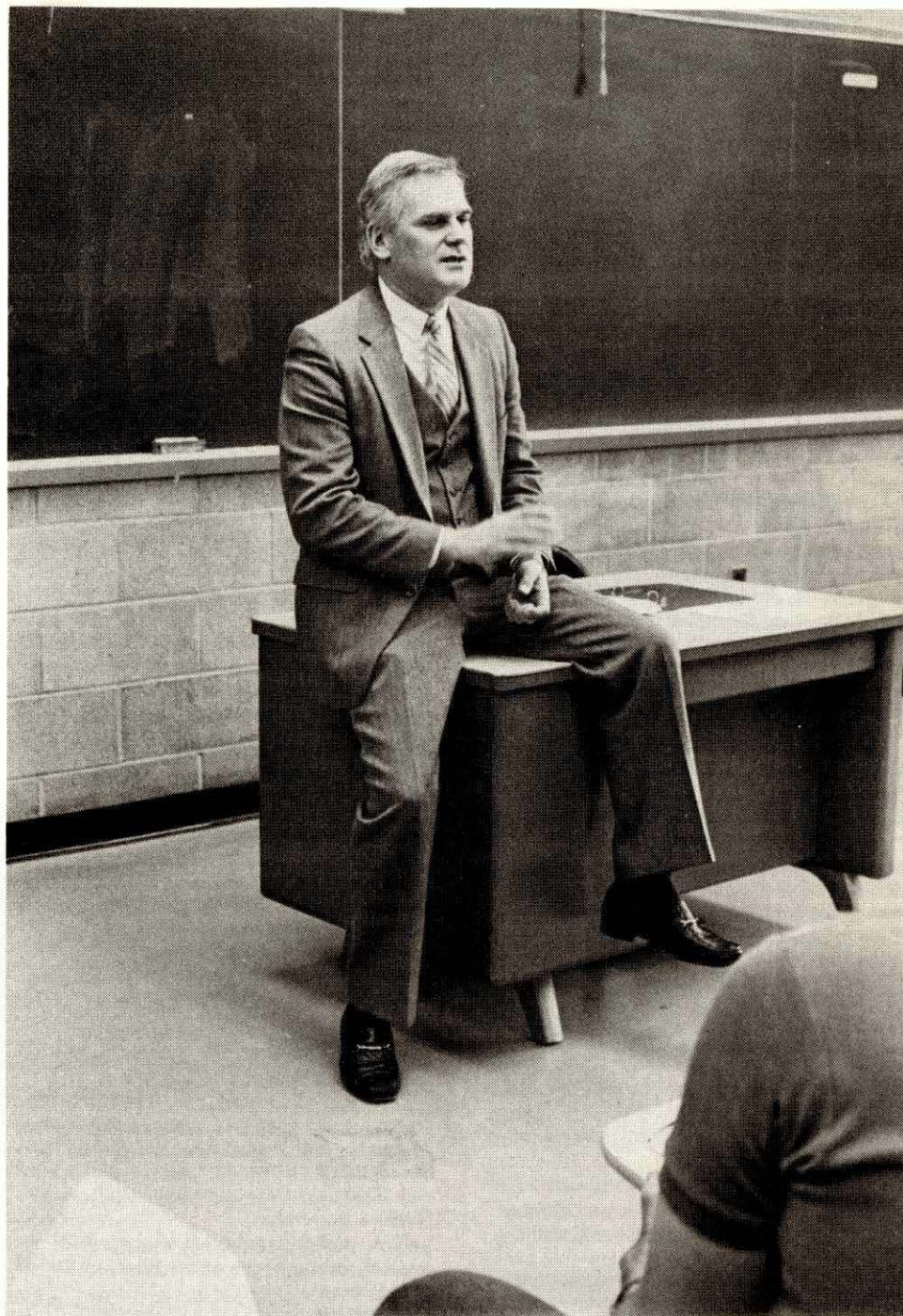
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**\*COLLEGE CALENDAR 1986-1988**

**PROPOSED 1986-1987 ACADEMIC CALENDAR**

**1986 FALL SEMESTER**

First Day of Fall Term Thursday, September 4, 1986  
 Thanksgiving Recess Begins Thursday, November 27, 1986  
 Classes Resume Monday, December 1, 1986  
 Last Day of Fall Term Tuesday, December 23, 1986

**1987 MID-YEAR STUDY PROGRAM**

MYSP Classes Begin Monday, January 5, 1987  
 MYSP Classes End Friday, January 23, 1987

**1987 SPRING SEMESTER**

First Day of Spring Term Monday, January 26, 1987  
 Spring Recess Begins Monday, April 13, 1987  
 Classes Resume Monday, April 20, 1987  
 Last Day of Spring Term Wednesday, May 27, 1987

**1987 COMMENCEMENT**

Commencement Thursday, June 4, 1987

**1987 SUMMER SESSION**

Summer Session Classes Begin (Independence Day Holiday) Monday, June 29, 1987  
 Summer Session Classes End Thursday, August 6, 1987

**PROPOSED 1987-1988 ACADEMIC CALENDAR**

**1987 FALL SEMESTER**

First Day of Fall Term Tuesday, September 8, 1987  
 Thanksgiving Recess Begins Thursday, November 26, 1987  
 Classes Resume Monday, November 30, 1987  
 Last Day of Fall Term Wednesday, December 23, 1987

**1988 MID-YEAR STUDY PROGRAM**

MYSP Classes Begin Monday, January 4, 1988  
 MYSP Classes End Friday, January 22, 1988

**1988 SPRING SEMESTER**

First Day of Spring Term Monday, January 25, 1988  
 Spring Recess Begins Monday, March 28, 1988  
 Classes Resume Monday, April 4, 1988  
 Last Day of Spring Term Friday, May 27, 1988

**1988 COMMENCEMENT**

Commencement Thursday, June 2, 1988

**1988 SUMMER SESSION**

Summer Session Classes Begin Independence Day Holiday Monday, June 27, 1988  
 Summer Session Classes Begin Monday, July 4, 1988  
 Classes Resume Tuesday, July 5, 1988  
 Summer Session Classes End Thursday, August 4, 1988

\*Subject to change

**MAP OF THE CAMPUS**

**DIRECTIONS TO THE CAMPUS**

**From US ROUTE 22:**

**EASTBOUND:** Drive under Parkway, turn right onto Route 82 East. Continue toward Elizabeth. Campus is within 2 miles.  
**WESTBOUND:** Drive under Parkway, keep right and follow signs to Elizabeth. Turn right on Morris Avenue.

**From GARDEN STATE PARKWAY:**

**NORTHBOUND:** Leave Parkway at Exit 140 onto Route 22 East. Turn right onto Route 82 East.  
**SOUTHBOUND:** Leave Parkway at Exit 140-A onto Route 22 West. Turn right onto Route 82 East towards Elizabeth.

**From US ROUTES 1-9:**

**NORTHBOUND:** Enter Elizabeth and turn left at Bayway intersection onto Route 439 West (Elmora Avenue). Continue to Morris Avenue (Route 82). Campus is on the left.  
**SOUTHBOUND:** Entering Elizabeth follow signs for Local Traffic (extreme right). Follow signs to North Avenue. Turn right onto North Avenue (Route 439) and continue to Route 82 (Morris Avenue). Turn right. Campus is on left.

**From NEW JERSEY TURNPIKE:**

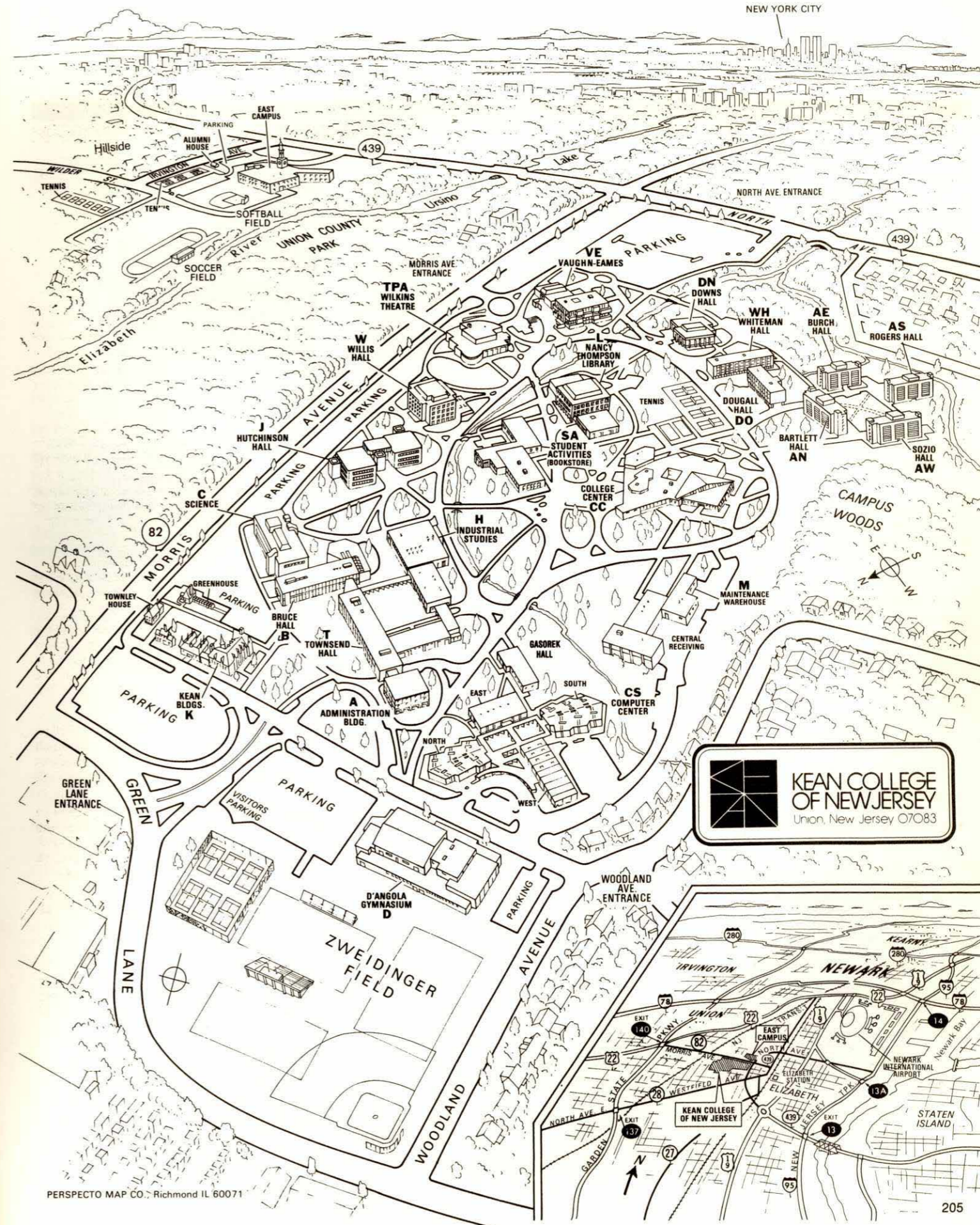
Leave Turnpike at Exit 13A (Elizabeth). Follow North Avenue West sign onto Route 439 which intersects with Route 82 (Morris Avenue) at College. Make right onto Morris Avenue. College is on left.  
 Leave Turnpike at Exit 13 (Elizabeth). Follow signs for Route 439. Continue across Route 1-9 at Bayway intersection onto Elmora Avenue (Route 439). Continue to Route 82 (Morris Avenue). Campus is on the left.  
 Leave Turnpike at Exit 14 for Route 1-9 South. Entering Elizabeth follow signs for Local Traffic (extreme right). Follow signs to North Avenue. Turn right. Campus is on the left.

**By TRAIN:**

The station at Elizabeth is 2 miles from Campus by bus or taxi. NJ Transit North Jersey Coast Liner and NJ Transit Northeast Corridor trains stop there.

**By BUS:**

NJ Transit #8 between Elizabeth and Springfield passes the Campus on Morris Avenue.  
 NJ Transit #143 between Plainfield and Port Authority Bus Terminal, New York, stops at Salem Road and Morris Avenue.



PERSPECTO MAP CO., Richmond IL 60071

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