Camden Undergraduate Catalog 2001–2003

Camden College of Arts and Sciences
University College–Camden
School of Business–Camden

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Important Notice:

Please note that only the printed version of this catalog is the official document of Rutgers, The State University of New Jersey. While Rutgers offers its catalogs on the Internet as a convenience, the university's online catalogs are unofficial, as is academic information offered at other Rutgers' web sites.

The university reserves the right for any reason to cancel or modify any course or program listed herein. In addition, individual course offerings and programs may vary from year to year as circumstances dictate.

Office Hours

Campus office hours are 8:30 A.M. to 4:30 P.M., Monday through Friday. In addition, University College–Camden offices are open Monday and Tuesday until 7:30 P.M. University Switchboard: 856/225-1766.

Academic Calendars

Dates are subject to change.

2000–2001

September

5	Tuesday	Fall term begins.

November

21	Tuesday	Thursday classes meet.
22	Wednesday	Friday classes meet.
23	Thursday	Thanksgiving recess begins.
26	Sunday	Thanksgiving recess ends.

December

13	Wednesday	Regular classes end.
14	Thursday	Reading period.
15	Friday	Fall exams begin.
22	Friday	Fall exams end.
23	Saturday	Winter recess begins.

January

15	Monday	Winter recess ends.
16	Tuesday	Spring term begins.

March

11	Sunday	Spring recess begins.
18	Sunday	Spring recess ends.

April

30	Monday	Regular classes end.

May

1	Tuesday	Reading period.
2	Wednesday	Reading period.
3	Thursday	Spring exams begin.
9	Wednesday	Spring exams end.
17	Thursday	University commencement.

2001–2002

September

4	Tuesday	Fall term begins.

November

20	Tuesday	Thursday classes meet.
21	Wednesday	Friday classes meet.
22	Thursday	Thanksgiving recess begins.
25	Sunday	Thanksgiving recess ends.

December

12	Wednesday	Regular classes end.
13	Thursday	Reading period.
14	Friday	Fall exams begin.
21	Friday	Fall exams end.
22	Saturday	Winter recess begins.

January

21	Monday	Winter recess ends.
22	Tuesday	Spring term begins.

March

17	Sunday	Spring recess begins.
24	Sunday	Spring recess ends.

May

6	Monday	Regular classes end.
7	Tuesday	Reading period.
8	Wednesday	Reading period.
9	Thursday	Spring exams begin.
15	Wednesday	Spring exams end.
23	Thursday	University commencement.

2002–2003

September

3	Tuesday	Fall term begins.

November

26	Tuesday	Thursday classes meet.
27	Wednesday	Friday classes meet.
28	Thursday	Thanksgiving recess begins.

December

1	Sunday	Thanksgiving recess ends.
11	Wednesday	Regular classes end.
12	Thursday	Reading period.
13	Friday	Reading period.
16	Monday	Fall exams begin.
23	Monday	Fall exams end.
24	Tuesday	Winter recess begins.

January

20	Monday	Winter recess ends.
21	Tuesday	Spring term begins.

March

16	Sunday	Spring recess begins.
23	Sunday	Spring recess ends.

May

5	Monday	Regular classes end.
6	Tuesday	Reading period.
7	Wednesday	Reading period.
8	Thursday	Spring exams begin.
14	Wednesday	Spring exams end.
22	Thursday	University commencement.

About the University

Rutgers, The State University of New Jersey, with more than 48,000 students on campuses in Camden, Newark, and New Brunswick, is one of the major state university systems in the nation. The university comprises twenty-nine degree-granting divisions: twelve undergraduate colleges, eleven graduate schools, and six schools offering both undergraduate and graduate degrees. Five are located in Camden, eight in Newark, and sixteen in New Brunswick.

Rutgers has a unique history as a colonial college, a land-grant institution, and a state university. Chartered in 1766 as Queen's College, the eighth institution of higher learning to be founded in the colonies before the Revolution, the school opened its doors in New Brunswick in 1771 with one instructor, one sophomore, and a handful of first-year students. During this early period the college developed as a classical liberal arts institution. In 1825, the name of the college was changed to Rutgers to honor a former trustee and revolutionary war veteran, Colonel Henry Rutgers.

Rutgers College became the land-grant college of New Jersey in 1864, resulting in the establishment of the Rutgers Scientific School with departments of agriculture, engineering, and chemistry. Further expansion in the sciences came with the founding of the New Jersey Agricultural Experiment Station in 1880, the College of Engineering in 1914 (now the School of Engineering), and the College of Agriculture (now Cook College) in 1921. The precursors to several other Rutgers divisions also were founded during this period: the College of Pharmacy in 1892, the New Jersey College for Women (now Douglass College) in 1918, and the School of Education (now a graduate school) in 1924.

Rutgers College assumed university status in 1924, and legislative acts in 1945 and 1956 designated all its divisions as The State University of New Jersey. During these years the university expanded significantly with the founding of an evening division, University College, in 1934, and the addition of the University of Newark in 1946 and the College of South Jersey at Camden in 1950.

Since the 1950s, Rutgers has continued to expand, especially in the area of graduate education. The Graduate School–New Brunswick, Graduate School–Newark, and Graduate School–Camden serve their respective campuses. In addition, several professional schools have been established in such fields as management, social work, criminal justice, applied and professional psychology, the fine and performing arts, and communication, information, and library studies. A number of these schools offer undergraduate programs as well. Livingston College was founded in 1969 to provide a diverse community of students with the opportunity to pursue undergraduate degrees in the liberal arts and professions.

Today, Rutgers continues to grow, both in its facilities and in the variety and depth of its educational and research programs. The university's goals for the future include the continued provision of the highest quality undergraduate and graduate education along with increased support for outstanding research to meet the needs of society and fulfill Rutgers' role as The State University of New Jersey.

Institutional and Specialized Accreditation

Rutgers, The State University of New Jersey, is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104-2680; 215/662-5606. The Commission on Higher Education of the Middle States Association of Colleges and Schools is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation. That accreditation was renewed and endorsed in 1998 at the time of its last review. Documents describing the institution's accreditation may be downloaded from the university's web site at http://www.rci.rutgers.edu/~oirap/OIRAP/msa/overview.html or may be reviewed during regular office hours by contacting the Office of Institutional Research and Academic Planning, Rutgers, The State University of New Jersey, 85 Somerset Street, New Brunswick, NJ 08901-1281; 732/932-7956.

Certain undergraduate programs on the Camden, Newark, and New Brunswick campuses of Rutgers are subject to specialized accreditation. For further information about specialized accreditation, including the names of associations that accredit university programs, please contact the Office of Institutional Research and Academic Planning.

Licensure

Rutgers, The State University of New Jersey, is duly licensed by the New Jersey Commission on Higher Education. For more information, please contact its Office of Programs and Services at 609/292-2955.

Undergraduate Education in Camden

There are two undergraduate liberal arts colleges and one undergraduate professional school in Camden: the Camden College of Arts and Sciences, University College–Camden, and the School of Business–Camden.

The Camden College of Arts and Sciences serves the more traditional college student who attends classes during the day, while University College–Camden is primarily an evening college for adult students who work during the day. The School of Business–Camden offers both day and evening courses.

While all the colleges are dedicated to providing the highest-quality education, each college establishes its own admission and scholastic standing requirements, and each offers specific academic programs designed to serve its students' needs. Students should consult each college section of this catalog both for a general description of the college and for a list of the academic programs offered.

The extensive facilities and extracurricular activities available on the Camden campus are described in the Student Life and Student Programs and Services chapters in this catalog.

Academic Excellence

The Camden colleges provide a strong and dynamic curriculum to help their students develop into knowledgeable, productive citizens. Their instructional staffs are rich in experience and background, and a favorable faculty-student ratio permits an intimate working relationship between the undergraduate and his or her professors.

The colleges enjoy full accreditation by many organizations, including the Middle States Association of Colleges and Secondary Schools, the American Chemical Society, the National Association of State Directors of Teacher Education and Certification, the National League of Nursing, the National Association for the Accreditation of Clinical Laboratory Sciences, and the American Assembly of Collegiate Business Schools.

The Campus

Located in the city of Camden, the campus is in the transportation hub of southern New Jersey, directly across the Delaware River from center-city Philadelphia. Numerous highways and the PATCO High-Speed Line provide quick, dependable access to the urban campus. Approximately 90 percent of the students, most of whom are from the Delaware Valley region, commute daily. Car pools are common and practical.

The major buildings on campus, most of them newly constructed, include the Campus Center with a bookstore and student health center; the Business and Science Building; the Science Building; two residence halls; Paul Robeson Library; Armitage Hall, a classroom / office building with a wing for administrative services; a gymnasium with squash courts, racquetball courts, a swimming pool, and weight room; and the Fine Arts Building, which houses the 663-seat Walter K. Gordon Theater, the Stedman Art Gallery, and classrooms.

The Rutgers–Camden Tower houses 252 undergraduate students in 42 suites. (Another residence hall houses graduate and law students.) In addition, many students reside nearby in sorority and fraternity houses, cooperatives, or private apartments.

SUMMER SESSION

Thomas J. Venables, Ed.D., Director

The Rutgers–Camden Summer Session offers over three hundred day and evening courses through the cooperation of the Camden College of Arts and Sciences, School of Business–Camden, University College–Camden, College of Nursing, and School of Social Work. The Summer Session consists of three terms, which run from Memorial Day to mid-August.

With relatively small class size, the Summer Session offers a wide variety of undergraduate and graduate courses suited to many majors and interest areas. Usually courses are offered in four-week segments in the early morning, late morning, afternoon, and evening sessions. In order to accommodate some laboratory sciences and studio courses, longer and shorter course adaptations are scheduled. Pay careful attention to the particular course description in the summer schedule.

Students from Rutgers–Camden and three hundred other colleges and universities enroll in the program. In addition to the regular collegiate offerings, the campus hosts the Rutgers–Camden Summer Music Festival and the Summer Writers' Conference.

Students may register for the Summer Session from March until the desired course begins. For further details, consult the annual Summer Session catalog or the Summer Session web site at http://summer.camden.rutgers.edu.

Degree Requirements

The programs of the colleges are organized to permit candidates for the bachelor's degree to engage in a general liberal education, as well as more concentrated departmental study within the humanities, natural sciences, social sciences divisions, or business. The faculties also have initiated a student-proposed major program which permits students who meet the necessary conditions to design their own interdepartmental major.

REQUIREMENTS

Placement Examinations for Entering Students

Placement tests are used to assess students' skill levels in mathematics, composition, and reading. Course selections in these areas are determined by placement test results.

Students are tested only after they have been admitted to a college. There is no fee for taking the tests. Placement tests are coordinated by the Office for Student Affairs, Armitage Hall, second floor. Contact this office (856/225-6043) for information about scheduled test dates and locations.

Entering students who have received a score of 4 or greater on the College Board Advanced Placement Examination in English Language and Composition or in English Literature and Composition may receive credit for 50:350:101 English Composition upon verification of their scores. Contact the admissions office (856/225-6104) for further information.

First-Year Students

To assist newly admitted first-year students in their course selections, the Rutgers University Placement Test (RUPT) is taken to measure student skills in reading comprehension, sentence structure, computation, elementary algebra, and precalculus. All full-time and part-time first-year students entering New Jersey public colleges must take these tests (some private colleges also have chosen to participate in the testing program).

English Placement. The NJCBSPT includes two measures of proficiency in reading: multiple-choice tests of reading comprehension and composition mechanics. Scores on these tests determine whether students may take 50:350:101 English Composition during their first term at Rutgers–Camden, or if they must first complete 50:350:099 Basic Writing Skills (or in some cases 50:350:097 English for Non-Native Speakers), a noncredit college preparatory course.

In addition, students whose scores on the reading comprehension section indicate a need to strengthen their reading comprehension and study skills may be required to take 50:350:098 Efficient Reading, a noncredit course, in the first term of attendance at the college.

Mathematics Placement. The RUPT includes multiple-choice measures of computation, elementary algebra, and precalculus skills. Students whose scores on the RUPT indicate the need for additional mathematics preparation are placed in either 50:640:041 Elementary Algebra or 50:640:042 Intermediate Algebra, noncredit college-preparatory courses. Students so placed must enroll in these courses in their first term, and in successive terms, until they have successfully completed 50:640:042.

Students enrolling in mathematics courses that grant credit must select appropriate courses as indicated by the results of this test.

Transfer Students

Testing requirements depend upon a transfer student's transcript evaluation.

Transfer students who have not received transfer credit for 50:350:101 or 102 (English Composition) must take the English portions of the RUPT. Transfer students who have received transfer credit for 50:350:101 only should enroll immediately in 50:350:102.

Students who have not completed the 50:350:101-102 requirement must enroll in the appropriate required course during their first term of study, complete the course, and continue consecutively thereafter until they successfully complete this requirement.

Mathematics Placement Testing. Transfer students who have transferred a college-level mathematics course need not take any placement examinations. Appropriate course placement in mathematics is determined by the student's academic advisers, based upon the student's academic records.

Transfer students who have not transferred a college-level mathematics course must take the Transfer Mathematics Placement Test (TMPT), which includes sections on computation, elementary algebra, and precalculus. Students whose scores on the TMPT indicate a need for additional mathematics preparation are placed in either 50:640:041 Elementary Algebra or 50:640:042 Intermediate Algebra, noncredit college-preparatory courses. Students so placed must enroll in these courses in their first term, and in successive terms, until they have successfully completed 50:640:042. Students enrolling in mathematics courses that grant credit make their course selections with their advisers on the basis of the TMPT results.

Nonmatriculated Students

Nonmatriculated students must consult with the Office for Student Affairs staff before they register for either English or mathematics department courses. Their previous college work at other institutions and the nature of the course they intend to take determine whether and which placement tests they must take to gain entrance into these classes.

Foreign Language

Credit. Transfer credit for foreign language study at a nonaccredited, foreign language institute can be considered for a maximum of 8 credits if a grade of 80 percent or better has been received and the American Council of Education has certified that the courses are equivalent to college credit courses.

Proficiency examinations are given only for subjects taught at Rutgers–Camden. Pending successful completion of a proficiency examination, students may be granted up to 8 credits. Since the granting of credit depends on the individual department, students are requested to check the policy of each department.

Placement. Students may take elementary foreign language courses at Rutgers–Camden for credit depending upon the number of years completed in the same language in

high school. Since this policy may vary among the language departments, students should refer to the catalog description of the elementary language in which they would like to enroll. Students uncertain about their status should consult with the chairperson of the appropriate language department.

It is recommended that students who wish to continue study of a language enroll at the highest possible level.

General Curricular Requirements

A candidate for the bachelor's degree must complete at least 120 credits of college work with a cumulative grade-point average of 2.0 or better. A candidate for a bachelor's degree must fulfill the requirements of an authorized major with a cumulative grade-point average of 2.0 or better in the major and meet the general curricular requirements of the Camden College of Arts and Sciences, University College–Camden, or the School of Business–Camden. No exceptions are made. The colleges recommend that the student complete the general curricular requirements by the end of the second year (57 credits).

The general curricular requirements for the B.S. in medical technology and nursing are specified in individual program descriptions. The general curricular requirements for the B.S. in accounting, finance, management, and marketing are specified in the School of Business–Camden chapter of this catalog.

The general curricular requirements are designed to improve students' ability to think clearly and communicate effectively; to expand their awareness of the history and variety of human achievements, experiences, values, and modes of self-expression; and generally to enrich their sense of the opportunities, responsibilities, and rewards of life in modern society.

To develop these skills and this broad acquaintance with the various departments of human knowledge, students in the Camden College of Arts and Sciences or University College–Camden, with the exception of those listed above, are required to complete the following curriculum:

1. a. 6 credits in English composition (50:350:101-102) unless exempted by the Department of English.
   b. 3 credits in World Masterpieces I (50:350:238).
   c. 3 credits from the offerings of the foreign language departments.
   d. 3 additional credits either from the offerings of the foreign language departments or from the following offerings of the English department: 50:350:239, 300, 301, or 302.
2. 3 credits from the offerings in art, music, or theater arts. (Courses in speech do not fulfill this requirement.)
3. 6 credits from the offerings of the history, philosophy, or religion departments (not including the three logic courses 50:730:201, 332, and 430).
4. 9 credits from the offerings of the social science disciplines: anthropology, economics, political science, psychology, sociology, urban studies, 50:300:381 Educational Psychology, and 50:988:201 Introduction to Women's Studies. (No more than 6 credits are to be taken in any one discipline.)
5. 6 credits from the offerings of the natural science disciplines: astronomy, biological sciences, chemistry, geology, and physics. (Note that some courses may require that both terms be taken to receive credit. This is indicated under the course description.)
6. a. 3 credits in mathematics (640 courses only).
   b. 3 additional credits in mathematics (640), computer science (198), statistics (960), or from the following courses: 50:730:201, 332, or 430; 50:790:391; 50:830:215; 50:920:301.
7. 3 credits in an interdisciplinary course intended to provide an integrated perspective on the issues and ideas that shape contemporary society: either one term of 50:090:291,292 Intellectual Heritage or one term of 50:090:293,294 Science, Technology, and Society.
8. 9 additional credits in courses offered by a department or departments other than the major department.

Courses required for major programs may count toward completing both major and general curricular requirements, but no course may be counted toward fulfilling two different categories of the general curricular requirements.

Students with high school admission deficiencies in foreign language or mathematics should consult the "High School Entrance Courses" section of the Admission chapter toward the end of this catalog for information on completing these requirements.

Major Programs

Departments may specify no more than 48 credits and no fewer than 30 credits in the major department and no more than 80 total credits. There may be exceptions to this rule as approved by the Academic Policy and Courses of Study committees and the Faculty Senate. (See the individual college chapters for the majors offered.)

Minor Programs

Students have the option of graduating with credit for having completed minors as well as majors. A minor shall consist of a minimum of 18 credits of work in one department or in one of the special and combined programs (9 credits above the 100 level, of which 6 must be at the 300 to 400 level).

A student majoring in a department requiring 48 or more credits for the major in its own or other departments may apply 6 of those credits toward a related minor with the approval of the department(s) offering the minor program.

Not all departments or programs offer minors, and some that do offer minors require more than 18 credits and may require specific courses. Students who wish to minor should make sure that the minors they desire are available and ascertain the specific requirements for these minors. These requirements are explained in the program descriptions in the Programs and Courses chapters.

Honors College

Director: Allen Woll, Ph.D., Room 298, Paul Robeson Library

The Honors College at Rutgers–Camden provides unique opportunities and support to its students. Honors College students will find their academic careers enhanced by personal access to professors and intellectual and social contact with other outstanding students. They also will benefit from extensive, individualized advising about academic programs at Rutgers, graduate or professional school plans, and major undergraduate and graduate fellowships and scholarships (e.g., Rhodes, Marshall, Fulbright, Mellon, Goldwater, National Science Foundation). The honors seminars, which form the core of the program during the

first two years, offer small classes taught by internationally known faculty who offer an interdisciplinary approach to subject matter. These seminars help to sharpen the intellectual skills necessary for personal research projects during the junior and senior years; these projects provide a significant advantage when students apply to the nation's most prestigious and competitive graduate schools.

To graduate with "General Honors" in the Honors College, a student must achieve a minimum cumulative grade-point average of 3.4 at the time of graduation, complete junior and senior projects, and satisfy the requirements of the Honors College. (Full requirements are explained in the Honors College section in the Programs and Courses chapter.)

The Honors College at Rutgers–Camden also supports activities outside the classroom. Films, guest lecturers, tickets to museum exhibits and cultural events, and field trips often are included in a course curriculum. Many of our educational activities also have a social component. Trips to cultural centers, such as Philadelphia and New York City, include visits to art museums and historical centers, or perhaps an architectural tour, followed by a meal at a special restaurant. Tickets to many Rutgers music, theater, and dance performances also are available to Honors College students on a first-come, first-served basis. In addition, the Blockbuster Sony Music Entertainment Center on the Camden waterfront also has provided tickets for concert events.

Honors students also have reserved floors within the residence hall where they can share their ideas and studies with students who have similar interests. The floors have special study rooms with computer and network access, as well as a modern seminar room for guest lectures and discussions. Each year, approximately one-third of the entering honors students take advantage of this unique opportunity. Honors students also have exclusive study and meeting rooms in the Paul Robeson Library on the Rutgers–Camden campus.

While most students enter this program as freshmen, limited numbers of sophomores and transfer students, who have outstanding academic records, may be admitted to the program as well.

Departmental Honors Programs

The departmental honors programs are designed to provide outstanding students with an opportunity for individual study and research. Students become eligible to enter and continue in an honors program upon the recommendation of the department in which they perform their work. The course of study for each student is devised by the department as a whole, but is under the immediate supervision of the member of the department most familiar with the problem under study.

Students must perform an amount of work in the program no less than the equivalent work load of an elective course in the chosen field (3 credits). Courses taken under honors programs are regarded as electives within the student's major.

Interested students should discuss the program with their departments during their junior year. Upon completion of each term in the program, the student receives 3 or 4 credits which may be used toward the satisfaction of the total degree requirements of the college.

At the end of the program a comprehensive examination tests the student's mastery of the major subject. Upon the recommendation of the major department, the notation "Distinction in [subject]'' shall be affixed to the permanent academic record of the student.

Campus-to-Career Experiential Learning Programs

Rutgers–Camden provides students the opportunity to gain experience and develop skills in fields related to their career interests through internships, practicums, independent study courses, and special programs. Various experiences can help students choose a major, prepare for graduate study, and find a job by giving them firsthand experience in a particular field of interest.

Internships. These educational experiences give students the opportunity to apply classroom learning to the workplace, expand professional skills, and earn academic credit. Internships usually require a minimum of 100 hours to receive credits and a grade per term or summer. To participate, a student must be a matriculated student. The Career Planning and Placement Office maintains a database of over 600 local and national internships.

Practicums/Field Experiences. Similar to internships, practicums/field experiences provide students with experience directly related to their individual academic majors and may fulfill specific degree requirements for a given major. Student may earn up to 12 credits, depending on the individual academic department.

Independent Study. Under the guidance of a faculty member, students study a topic not covered as a regular course or one of special interest to the student. Independent studies are designed to develop research skills and are advantageous to students planning to pursue graduate/professional study.

Consult the individual academic departments and schools for experiential learning options.

Special Programs

Citizenship and Service Education Program (CASE)

This service learning course is implemented in many individual academic disciplines on the Rutgers–Camden campus. See the Programs and Courses chapter for further information.

Dual Degrees

Students presently enrolled in the Camden College of Arts and Sciences, University College–Camden, or the School of Business–Camden may elect to receive two baccalaureate degrees (B.A. and B.S.). To be awarded two simultaneous degrees, they must satisfy the requirements of two major fields and accumulate a minimum of 30 credits beyond that required for one baccalaureate degree. Students pursuing two degrees should plan their programs carefully with assistance from the Office for Student Affairs.

Work outside of Class

Students should expect to spend at least two hours studying outside class for each credit hour they spend in class. Thus, for a 3-credit lecture or seminar course, six hours of work outside of class per week is considered an appropriate

minimum. Students should bear this in mind if they are attempting to combine full-time course loads and substantial amounts of employment.

GRADUATION

Notice of Degree Candidacy and Degree Certification

It is the responsibility of each prospective graduate to discharge all academic and financial obligations to the university and to request a final review and certification of his or her academic record by the faculty of the college, preparatory to graduation. Degree candidates do so by following the procedure outlined in the following list:

1. ascertain whether all degree requirements have been satisfied
2. complete the Notice of Degree Candidacy (available in the Office for Student Affairs)
3. submit the Notice of Degree Candidacy and preapproved Senior Review forms (see Senior Reviews in the chapter "Camden College of Arts and Sciences'') to the Office for Student Affairs

Approved departmental candidates are presented to the Faculty Senate for final certification. Students having problems in meeting graduation requirements are notified by the Office for Student Affairs. Degree candidates seeking a minor must file for minor field certification along with the Notice of Degree Candidacy.

Candidates must file for degree certification in accordance with the following dates: August 1, for those qualifying for an October-dated diploma; October 1, for a January-dated diploma; and February 15, for a May / June-dated diploma.

Failure to meet one of the above dates requires the resubmission of the Notice of Degree Candidacy in the next period. The faculty will not act to certify a degree candidacy unless the prospective graduate has filed a Notice of Degree Candidacy form.

Degree Conditions

Degrees are conferred by the Board of Governors of the university in May, upon the recommendation of the Camden Faculty Senate. Diplomas are presented at the commencement convocation of the Camden campus. Students must have:

1. earned a minimum of 30 credits of the final 42 credits as regularly enrolled undergraduates at Rutgers–Camden including at least 12 credits in the major
2. completed at least 120 credits with a cumulative grade-point average of 2.0 or better
3. fulfilled all basic requirements of the college (see General Curricular Requirements)
4. fulfilled the specific requirements of a major program; and
5. discharged all academic, disciplinary, and financial obligations to the university

All of the above conditions must be satisfied before the degree will be conferred. Only those students who have satisfied all degree conditions may participate in the commencement convocation.

Graduation with Honors

The bachelor's degree is conferred with Honors on all degree candidates with a minimum cumulative grade-point average of 3.5. The requirement for High Honors is a cumulative grade-point average of 3.75. The minimum requirement for Highest Honors is 3.9. To be eligible for an honors degree, a student must successfully complete at least 45 credits within Rutgers, The State University of New Jersey, as a matriculated student.

The Diploma

The diploma is the official document, bearing the university seal, that attests to the conferral of a degree by the university.

The diploma identifies the degree conferred and the nature of general honors earned, if any. The major field of study is not stipulated. The B.S. degrees in accounting, finance, management, and marketing are conferred by the School of Business–Camden.

Senior students who complete their requirements and are certified as October or January candidates are, upon written request, furnished with an interim statement, under university seal, attesting to their eligibility to receive a diploma in May. Such requests should be directed to the Office for Student Affairs.

Attendance at Commencement

Degrees are conferred and diplomas are presented at the commencement convocations of the colleges each spring. Any candidate who is unable to attend the Camden commencement convocation is asked to write to the registrar requesting that the degree be conferred in absentia. Since arrangements for the commencement convocations are complex and well advanced by April 1, it is appreciated if such requests are placed before that date. Candidates whose attendance is prevented by some last-minute emergency are asked to communicate with the registrar within twenty-four hours of commencement. In all cases, the candidate should indicate the address to which the diploma may be sent when it is mailed during the months of June and July.

Liberal Arts Colleges

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Camden College of Arts and Sciences

OFFICE OF THE DEAN

Dean: Margaret Marsh, Ph.D.
Associate Dean: Daniel Hart, Ed.D.
Assistant Dean: Nancy G. Rosoff, M.A.
Business Manager: Maria Garcia
Administrative Assistant: Iris Rodriguez
Administrative Assistant: Lori Mariano

The Office of the Dean administers the academic programs of the Camden College of Arts and Sciences (CCAS). It is responsible for program planning, faculty appointments, the maintenance of instructional standards, and the observance of the college's academic policies.

In addition, the office is concerned with the scholastic accomplishments of the students. The dean's staff administers the New Jersey College Basic Skills Placement Test, academic orientation, student advising services, and the Dean's List, as well as other programs which promote academic excellence at the college.

HISTORY AND AIMS OF THE COLLEGE

Since its origin in 1927 as the College of South Jersey, the Camden College of Arts and Sciences has undergone a dramatic growth in curricular offerings, facilities, and the size of the student body. Starting as a two-year college serving the needs of a small group of students, the college today, as part of Rutgers, The State University of New Jersey, has more than 2,400 day students studying in over twenty-five different fields. Its graduates have entered many avenues of professional and business life, perhaps contributing most outstandingly in the fields of medicine, law, the sciences, business, and education.

The college is committed to maintaining its tradition as a liberal arts institution. A broad range of subjects in the humanities, social sciences, and natural and physical sciences is available to its students. Distribution requirements ensure that students gain an understanding of all areas of the liberal arts curriculum.

PROGRAMS OF STUDY

Major Programs

The Camden College of Arts and Sciences offers the major programs listed below and described in detail in the Programs and Courses chapters.

A major program includes 30 to 48 credits of course work in the selected major department, and any other courses required, as specified by that department. However, the total number of credits specified by the department may not exceed 80.

Bachelor of Arts

014 African-American Studies
080 Art (art history, design, electronic art, fine arts)
120 Biology
160 Chemistry
198 Computer Science
202 Criminal Justice (proposed)
220 Economics
350 English
420 French
470 German
510 History
555 Student-Proposed Major
640 Mathematics
700 Music
730 Philosophy
750 Physics
790 Political Science
830 Psychology
840 Religion
890 General Science
910 Social Work
920 Sociology
940 Spanish
965 Theater Arts
975 Urban Studies

Bachelor of Science

124 Biomedical Technology
705 Nursing

CCAS also offers special concentrations for students interested in premedicine, preagriculture (017), preengineering (005), and prepharmacy (720). Air Force and Army Officers Training Programs are available to students.

Minor Programs

The majority of the departments offer approved minor programs of study. Students pursuing either the B.A. or B.S. degree may elect an approved minor.

ACADEMIC POLICIES AND PROCEDURES

Note: See also the general Academic Policies and Procedures chapter for regulations that pertain to all three undergraduate colleges.

Selecting Courses

Course selection for the fall and spring terms occurs during the months of October and March. Most currently enrolled students can select their courses by telephone registration or via the Internet. However, students in academic jeopardy normally are required to select their courses in person and with the approval of a dean or faculty adviser.

Course Load

A typical course load for a full-time student is 15 credits. Students desiring to register for more than 18 credits must meet the cumulative grade-point average listed below. Students in their first term at the college may not register for more than 18 credits. Exceptions to these rules can be made only by the Committee on Scholastic Standing.

For each hour of class time, students are expected to do a minimum of two hours of out-of-class study. Students should plan their course loads accordingly.

Overload. A student who takes more than 18 credits in a term has an overload. To take an overload of 19 or 20 credits, a cumulative grade-point average of 3.0 or better is required; to take an overload of 21 or more credits (maximum overload is 24 credits), a cumulative grade-point average of 3.5 or more is required.

Students should take an overload only for compelling reasons. Each student who has the required cumulative grade-point average and is considering taking an overload should discuss carefully with his or her adviser whether an overload is in the student's best interest. Approval must be granted by a dean in the student development office.

Change of Courses

The addition or substitution of courses is permitted only during the first five class days of the term. Courses may be dropped, without penalty, until the end of the eighth week of the term.

Exceptions to the deadline for dropping courses can be made only by the Committee on Scholastic Standing. Petition forms for this purpose may be obtained from the Office for Student Development. Completed forms must be received in the Office for Student Development not later than one week before the end of the term. When the reason for the petition involves personal problems, it is expected that students will have discussed the problems with a dean in the Office for Student Development before the closing one-week period. Petitions are granted by the committee only when serious personal problems have developed after the stipulated penalty-free drop period and the problems are confirmed by the Office for Student Development.

No course may be dropped during the last week of class.

Day and Evening Class Schedules and Hours

Starting and closing dates for each term, scheduled holidays, and other important scheduling information can be found in the academic calendar. Classes meet Monday through Friday between the hours of 8:00 A.M. and 5:40 P.M. Students may schedule classes that meet for three fifty-five-minute periods a week, two eighty-minute periods a week, or a combination thereof. Laboratory, studio art, and theater arts classes generally vary in the length of period from those above.

Evening classes normally are scheduled to meet either two evenings per week or in a single session, i.e., one double-period class per week. There are two class periods per evening for courses meeting twice a week, each running for an hour and twenty minutes with a ten-minute break between classes; the periods begin at 6:00 P.M. and 7:30 P.M. Classes meeting once a week begin at 6:00 P.M. The majority of students choose schedules of two evenings per week, although some students find it desirable, or necessary, to attend three or four evenings. Students also may select day courses when appropriate.

HONORS AND AWARDS

Dean's List

The dean's list recognizes current academic achievement. The list is published at the end of each term for full-time students and in August for part-time students. Full-time students are eligible if they have completed 12 or more credits for numerical grade credit with a term grade-point average of 3.5 or better. Part-time students are eligible if during the previous academic year they have completed 12 or more credits for numerical grade credit with a grade-point average of 3.5 or better.

Honor Societies

Alpha Delta Mu. This society is the national social work honor society. Its purpose is to advance excellence in social work practice and to encourage, stimulate, and maintain scholarship of the individual members in all fields, particularly in social work. To be eligible for membership, a student must have senior standing, have completed 33 credit hours in the social work program, and have a cumulative grade-point average of 3.5 or a cumulative grade-point average of 3.0 or higher and the recommendation of two faculty members. In addition to academic excellence, a student must have demonstrated leadership ability, a high standard of personal behavior, and a dedication to social work practice.

Athenaeum Honor Society. The members of Athenaeum, the honor society of the college, are elected from among the best scholars in the upper classes. Membership is limited to seniors who have earned at least 60 credits at the college with a cumulative grade-point average of no less than 3.5 and juniors who have earned at least 80 credits at the college with a cumulative grade-point average of no less than 3.7. In addition, the society may, from time to time, elect honorary members.

Kappa Delta Pi. Membership in this national education honor society is based on academic excellence and an exhibited professional attitude that would enable one to grow in the field of education.

Omicron Delta Epsilon. Membership in this international honor society in economics requires junior or senior status, standing in the top 25 percent of class, exceptionally high grade-point averages overall and in economics, and departmental approval.

Phi Sigma Alpha. Students attaining honors standing in the college and in political science are eligible for nomination to membership in this national political science honor society.

Pi Delta Epsilon. Members are elected to this national journalism honor fraternity by the chapter members from the staffs of The Gleaner and Mneme.

Pi Mu Epsilon. Students who have completed the work of at least the sophomore year with honors in mathematics and who have a high class standing will be considered for membership in the national mathematics honor society.

Psi Chi. Students attaining honors standing in the college and in psychology are eligible for nomination to membership in the national psychology honor society.

Sigma Delta Pi. Students are selected on the basis of high scholastic achievement in Hispanic studies for this national Spanish honor society.

Sigma Theta Tau. Membership in the national honor society of nursing is competitive and is based on scholarship and leadership.

Tau Kappa Alpha. Members of the national forensic honor fraternity are selected by the chapter from their participation in the forensic program, including debating squads.

Awards and Prizes

The following prizes are open annually to Camden College of Arts and Sciences students. Further information can be obtained from the various disciplines offering the prizes or the assistant dean for student affairs.

Academic Achievement Award in Nursing
African-American Studies Award
Air Force Community Service Award (nursing)
Ralph Bergen Allen Prize in English Composition
Army Nurse Corps "Spirit of Nursing" Award
Athenaeum Honor Society Award
Jane Watt Baird Prize in Music (piano or organ)
Edward J. Bloustein Community Service Award
James M. Boland Memorial Award (nursing)
Tommaso A. Borda Memorial Award
Mary Camishon-Malone Memorial Scholarship (nursing)
Nancy Camishon Memorial Scholarship (nursing)
Richard A. Caulk Memorial Scholarship (history)
Computer Science Award
Nancy Higginson Dorr Award for Student Teaching
Alfred E. Driscoll Memorial Prize in Art History
Marian Eichman Memorial Award (nursing)
English Department Prize
Faculty Award for Distinguished Service in Advancement of Education
James M. Gaffney Memorial Award
Anthony Giannotti Memorial Prize in Art
Fay Giannotti Memorial Prize in Art
Gulick-Coleman Scholarship
History Department Award
William Hoffman Prize in Painting
Betty Harris Jones English Award
Dorothy Mallery Scholarship Award (music)
George Masterton Award in Sociology and Anthropology
Mathematical Sciences Distinguished Service Award
Mathematical Sciences Scholarship Award
Minority Alumni Council Outstanding Senior Award
New Jersey League for Nursing Award
New Jersey State Nursing Association #5 Betty Malloy Memorial Award
The Petros Odabashian Award in Foreign Languages (primarily Russian)
Robert D. Packard Memorial Scholarship Award (political science)
Philadelphia Chapter of the American Institute of Chemists Senior Student Award
Philadelphia Section of the American Chemical Society Senior Award
Psychology Award
Psychology Department Award for Public Service
Drs. Owen and Ronald Rahman Award in Biology
Drs. Owen and Ronald Rahman Award in Chemistry
Rotary Club of Camden Scholarship
Rutgers–Camden Alumni Association Award (outstanding senior, man and woman)
Rutgers–Camden Alumni Association Award (writing)
Rutgers–Camden Alumni Association's Nursing Program Award
James Sanderson Humanities Award
Harry H. Shapiro Senior of the Year Award (political science)
Sigma Theta Tau Academic Achievement Award (nursing)
Sigma Theta Tau Best All-Around Student Award (nursing)
Stedman Art Award
Howard Morris Stuckert Memorial Award in Philosophy
Harry S. Trautenberg Award (music)
Jack Marvin Weiner Memorial Award (political science)
Gerard S. Weissman Award in Biology
John C. Wentz Memorial Prize (English essay)
Mary Jane Kelleher Wille Memorial Prize in Visual Arts
Brian C. Wright Social Work Award

University College–Camden

OFFICE OF THE DEAN

Dean: Margaret Marsh, Ph.D.
Associate Dean: Marie Cornelia, Ph.D.
Administrative Assistant: Elizabeth A. Skyta

University College–Camden is the evening degree-granting unit for the Faculty of Arts and Sciences–Camden. The University College–Camden dean's office is responsible for program planning, part-time faculty appointments, maintenance of instructional standards, and the enforcement of Rutgers' academic policies.

In addition, this office is concerned with coordinating the support services of the School of Business–Camden's advising, business, campus center, career planning and placement, counseling, financial aid, and registrar's offices for the evening student on and off campus.

HISTORY AND AIMS OF THE COLLEGE

The mission of University College–Camden remains what it has been since the college was founded in 1934: to provide programs of study leading to undergraduate degrees which primarily are geared to the needs of adult, part-time students. The college strives to make an undergraduate education of high quality available to students who only can attend evening classes because of their other responsibilities.

The curricula of the Faculty of Arts and Sciences–Camden and the School of Business–Camden are built on a solid foundation in liberal arts and sciences. Half of all credits earned toward a baccalaureate degree are devoted to study in the humanities, social sciences, and mathematical and natural sciences. The Faculty of Arts and Sciences–Camden offers seven major programs in the evening leading to the Bachelor of Arts degree. They are computer science, English, history, liberal studies, physics, political science, and psychology. The School of Business–Camden also offers evening majors in accounting, finance, management, and marketing that lead to a Bachelor of Science degree.

A Diversified Student Body

The student population of University College–Camden is composed mainly of transfer students from other colleges, but the college also accepts qualified students with no previous college experience. Students' ages range from seventeen to seventy, and even beyond. About three-fourths of the students are between the ages of twenty-four and fifty-four and over 50 percent are women. While most are candidates for a baccalaureate degree, others are college graduates who are pursuing new fields of study in order to earn a second bachelor's degree or prepare for graduate school in a different area. When appropriate, the college also admits students who are not enrolled in any degree programs but who wish to take courses for special professional or personal purposes. The strength of the University College–Camden student body lies in this diversity.

While the majority of University College–Camden students take courses primarily in the evening on a part-time basis, all students may register for any undergraduate course in the daytime program for which they have the prerequisites.

PROGRAMS OF STUDY

Eleven major programs of study that lead to a baccalaureate degree are available in their entirety in the evening. Students not interested in pursing a degree program may, within prescribed limits, schedule individual courses on a nonmatriculated basis.

Major Programs

The following majors are available to evening students in Camden. They are offered by the Faculty of Arts and Sciences–Camden and the School of Business–Camden. The general curricular requirements for a bachelor's degree are outlined in the Degree Requirements and the School of Business–Camden chapters. The major academic programs are described in detail in the Programs and Courses chapter. Some majors have specific admission requirements, e.g., accounting, computer science, and management. Consult the appropriate section for admission requirements to major programs.

Majors Offered in the Evening

Bachelor of Arts

198 Computer Science (Information Systems option only)
350 English
510 History
606 Liberal Studies
750 Physics
790 Political Science
830 Psychology

Bachelor of Science

010 Accounting
390 Finance
620 Management
630 Marketing

Student-Proposed Major

Rather than a traditional curriculum, a University College–Camden student, with the approval of the faculty, may elect an interdisciplinary major for either the B.A. or B.S. degree. See Student-Proposed Majors in the Programs and Courses chapter for further information.

Minor Programs

The majority of the departments offer approved minor programs of study. Students pursuing either the B.A. or B.S. degree may elect an approved minor.

ACADEMIC POLICIES AND PROCEDURES

Note: See also the general Academic Policies and Procedures chapter for regulations that pertain to all three undergraduate colleges. Refer to the section under the Camden College of Arts and Sciences.

HONORS AND AWARDS

Dean's List

The dean's list recognizes current academic achievement. The list is published at the end of each term for full-time students and in August for part-time students. Full-time students are eligible if they have completed 12 or more credits for numerical grade credit with a term grade-point average of 3.5 or better. Part-time students are eligible if they are matriculated and if, during the previous academic year, they have completed 12 or more credits for numerical grade credit with a grade-point average of 3.5 or better.

Honor Societies

Gamma Xi Chapter of Alpha Sigma Lambda National Honor Society. Open by invitation to students who have earned, at the time of induction, 75 credits in academic subjects, including a minimum of 45 credits in the liberal arts and sciences and a minimum of 15 credits in the major, and who have earned a minimum of 45 of these 75 credits in evening classes at Rutgers–Camden. Students must have maintained a cumulative grade-point average of 3.5 or better where 4.0 is the highest grade-point average attainable.

Awards and Prizes

University College–Camden and evening School of Business–Camden students who demonstrate outstanding academic achievement are eligible for awards and prizes which are presented annually at the Academic Honors Convocation, an event usually conducted during the month of April.

Alumni Association Award. Donated by the Rutgers University Camden Alumni Association. Presented to that evening student in the graduating class of University College–Camden or the School of Business–Camden who has demonstrated outstanding student leadership and academic excellence.

Arthur E. Armitage Award. Given by the University College–Camden Honor Society, Gamma Xi Chapter, Alpha Sigma Lambda in honor of the founder of the evening college at Camden. Presented to that member of the graduating class whose academic record has evidenced the highest achievement among evening students who are candidates for degrees. The honoree must be a member of Alpha Sigma Lambda.

Ed McNall Burns Memorial Award. Supported by an endowment fund which is the gift of Mrs. Edward McNall Burns. Presented to the University College–Camden senior with the highest academic record in the field of history. The recipient must have completed at least 21 credits in history, must be taking at least 3 additional credits during the last term, and must have the highest grade-point average in all courses in history.

Computer Science Award. Given to the University College–Camden senior who has demonstrated academic excellence in computer science.

J. Fredrik Ekstrom Scholarship Award for Graduate Study. Awarded annually to an Alpha Sigma Lambda honor society member who has been accepted for graduate study. The amount of the scholarship is dependent upon contributions received by the honor society. Information regarding eligibility and application may be obtained by writing Connie Cramer, 19 Lafferty Drive, Cherry Hill, NJ 08002.

English Department Award. Given to the University College–Camden senior who has demonstrated academic excellence in English.

Dr. Louis Forman Humanities Award. Established by the University College–Camden Class of 1976 to honor the outstanding teaching of Professor Forman. Presented to the University College–Camden student who has demonstrated outstanding ability in the humanities.

Charles Kaden Memorial Award for Psychology. Presented to the University College–Camden senior whose progress in the field of psychology warrants special recognition.

Outstanding Student Activities Award. Given by the University College–Camden Student Council to the senior who has given outstanding service in activities.

Jack Marvin Weiner Memorial Award. Given to the University College–Camden senior who has demonstrated academic excellence in political science.

STUDENT ORGANIZATIONS AND ACTIVITIES

Note: See also the Student Life and Student Programs and Services chapters for information that pertains to all the colleges.

To meet the needs and interests of its diversified adult student body, University College–Camden has developed a student life program that extends the educational experience beyond the classroom by providing cultural, intellectual, and professional activities.

Many of the student organizations are oriented to discipline-related activities; others offer excellent training as well as opportunities to participate directly in college and university governance. Student leaders take responsibility for the operation and financial allocations of the Student Council and the special interest clubs and organizations. A list of the organizations and activities currently active on the campus may be obtained from the University College–Camden office.

Student Council

The Student Council is an elected group of students who represent the total student body's interests in the university partnership of students, faculty, and administrators. It is through the council that students have a voice in matters that affect their educational development and environment.

University Cultural and Social Activities

University College–Camden students are urged to participate in cultural and social activities. Theatrical presentations, art exhibitions, athletic events, and lectures are scheduled during evening hours throughout the year.

Programs, Faculty, and Courses

AVAILABILITY OF MAJORS

The programs of study outlined in this section are, in general, available to undergraduate students enrolled in the two liberal arts colleges in Camden: Camden College of Arts and Sciences and University College–Camden. School of Business–Camden programs and courses are included in the School of Business–Camden section of this catalog. However, not all programs are offered at both liberal arts colleges, and many are available only with daytime attendance. Therefore, it is important to consult the three college chapters in this catalog for lists of the majors available to students at each of the schools.

Individual undergraduate courses offered at Rutgers in Camden are, in general, open to students at all undergraduate colleges, subject to prerequisite restrictions and space limitations.

COURSE NOTATION INFORMATION

Changes in Course Numbers and/or Titles

In most cases, if a course number has changed recently, the previous course number is given immediately below the title of the course with the following notation: (Formerly 00:000:000). Nevertheless, it is the student's responsibility to read course descriptions carefully and, when in doubt, to check with his or her adviser or the appropriate department to avoid registering for a course that the student may have already taken. Credit is not given twice for the same course, despite a change in number and/or title.

Explanation of Three-Part Course Numbers

The number preceding each course title is divided into three parts. The first two digits are the administrative code, the next three digits are the subject code, and the final three digits are the course code.

Administrative Codes

50 Camden College of Arts and Sciences (daytime and evening courses)
52 School of Business–Camden (daytime and evening courses)

Subject Codes

A subject code indicates the subject matter of the course. (This list does not constitute a list of majors.)

005 Engineering Transfer
006 Pre-Business
008 Pre-Nursing
014 African-American Studies
050 American Studies
070 Anthropology
080 Art (design, electronic art, fine arts)
082 Art History
090 Arts and Sciences
100 Astronomy
115 Biochemistry
120 Biology
124 Biomedical Technology
130 Botany
160 Chemistry
198 Computer Science
202 Criminal Justice
203 Dance
220 Economics
300 Education
350 English (Literature and Writing)
352 English, American Literature
354 Film Studies
420 French
460 Geological Sciences
470 German
510 History
512 History, American
520 Home Economics
551 International Studies
555 Student-Proposed Majors
560 Italian
570 Journalism
572 Justice and Society
590 Latin American Studies
606 Liberal Studies
615 Linguistics
640 Mathematical Sciences
680 Microbiology
690 Museum Studies
700 Music (and Musical Theater)
701 Music, Applied
705 Nursing
720 Pharmacy
730 Philosophy
750 Physics
760 Physiology
780 Plant Physiology
790 Political Science
830 Psychology
834 Public Administration and Government Service
840 Religion
860 Russian
890 General Science
910 Social Work
920 Sociology
940 Spanish
950 Speech
960 Statistics
965 Theater Arts (and Musical Theater)
975 Urban Studies and Community Planning
981 Volunteer Organization Leadership
988 Women's Studies
989 Writing
990 Zoology

Course Codes

Courses coded from 100 to 299 are introductory and intermediate undergraduate courses; codes from 300 to 499 indicate advanced undergraduate courses. Courses coded from 500 to 799 are graduate courses and are described in the graduate catalogs of the university.

Two course codes separated by a comma indicate that each term course may be taken independently of the other (example: 50:160:453,454). Two course codes separated by a hyphen indicate that satisfactory completion of the first term course is a prerequisite to the second term (example: 50:750:203-204); the first term may be taken for credit without the second, except if a statement is added to indicate that both term courses must be completed in order to receive credit (example: 50:160:335-336).

Other Course Notations

If the course title is followed by an (R), i.e., General Chemistry (R), the course may be repeated under the course repetition procedure described in the Academic Policies and Procedures chapter.

Credits awarded for the successful completion of each course are indicated in parentheses following course title. The notation (BA) indicates that the number of credits is determined by arrangement with the department offering the course.

The university reserves the right to augment, modify, or cancel the courses listed in the catalog, or to change degree requirements. Except for certain types of advanced courses, a course will automatically be withdrawn if fewer than ten students register for it.

ENGINEERING TRANSFER 005

This program leads to either a B.S. degree or a joint B.A./B.S. degree. It can be completed only through daytime attendance.

Students starting at the Camden College of Arts and Sciences may transfer to the College of Engineering at Rutgers in New Brunswick after two years, provided they are in good standing with a cumulative grade-point average of 2.5 or better and a grade of C or better in all technical subjects. These are the usual criteria for acceptance by the receiving dean of the College of Engineering at New Brunswick. There are two options available to students entering the engineering transfer program at Camden: a two-year transfer program and a five-year program (two-plus-three).

Two-Year Transfer Program

The first two years of the program are taken at the Camden College of Arts and Sciences. After two years, students transfer to the School of Engineering in New Brunswick and come under its jurisdiction for the remaining two years. At that time, the student also chooses a liberal arts college in New Brunswick (Douglass College, Livingston College, or Rutgers College) with which to affiliate for student services. The program leads to a B.S. degree in the selected engineering curriculum. Elective courses during the first two years must be selected with the aid and approval of the student's faculty adviser in Camden. Some curricula may require attendance at one or more summer sessions or an extra year of study in New Brunswick due to the lack of availability of second-year courses for some engineering majors at CCAS.

Five-Year Program

The first two years of the program are taken at the Camden College of Arts and Sciences. The last three years are taken at the College of Engineering and a liberal arts college in New Brunswick (Douglass, Livingston, or Rutgers). The B.S. degree is conferred by the College of Engineering and the B.A. degree is conferred by the chosen liberal arts college.

Elective courses in the social sciences and humanities, generally totaling 18–24 credits, are required for graduation from the New Brunswick colleges. The elective requirements are determined by the New Brunswick college with which the student affiliates. A list of suitable electives is available in the advising office.

First Year

First Term

50:350:101 English Composition I (3)
50:640:121 Unified Calculus I (4)
50:750:131 Elements of Physics I (3)
50:750:133 Elements of Physics Laboratory I (1)
Elective (3 or 4)

Second Term

50:198:151 Introduction to Programming Methods Using FORTRAN (3)
50:640:122 Unified Calculus II (4)
50:750:132 Elements of Physics II (3)
50:750:134 Elements of Physics Laboratory II (1)
Two electives (6–8)

Sophomore Year

First Term

50:160:115 Chemical Principles I (3)
50:160:125 Chemical Principles Laboratory I (1)
50:640:221 Unified Calculus III (4)
50:750:233 Electric Circuits I (3)
50:750:235 Electric Circuits Laboratory I (1)
50:750:253 Mechanics I (3) *

Second Term

50:160:116 Chemical Principles II (3)
50:160:126 Chemical Principles Laboratory II (1)
50:640:314 Elementary Differential Equations (3)
50:750:232 Elements of Modern Physics (3)
50:750:291 Mechanics of Materials (3)
Elective (3 or 4)

Students planning to major in electrical engineering should also take 50:750:234 Electric Circuits II, 50:750:236 Electric Circuits II Laboratory, and 50:750:237 Computer Organization and Logic Design. Students planning to major in chemical engineering should take 50:160:115,116 Chemical Principles I,II in the first year and 50:160:335,336 Organic Chemistry in the sophomore year.

Junior, Senior, and Fifth Years

Same as programs starting in New Brunswick.

ACCOUNTING 010

See the School of Business–Camden: Courses chapter.

* Primarily deals with statics.

AFRICAN-AMERICAN STUDIES 014

Director: Wayne Glasker, B.A., M.A., Ph.D., Pennsylvania

The program in African-American Studies is designed to provide students with a sound understanding of the black experience nationally and internationally, while focusing on North America. The interdepartmental and interdisciplinary features of the program allow for a broad and varied exposure to black culture, economics, politics, and history from Africa to the Americas. Each African-American Studies major must take 33 credits in courses approved for the major and choose a departmental minor; the required departmental minor may not be in another interdisciplinary or area program. Thus the program focuses the course of study on material that prepares students for meaningful careers of their choice and / or advanced degree training.

Students who wish to major or minor in African-American Studies should consult with the program director. A grade-point average of 2.0 or better is required in courses for the major or minor in African-American Studies. This program can be completed only through daytime attendance.

In addition to the college curriculum requirements, the following requirements must be met to satisfy the African-American Studies major:

Major Requirements

Students must take the following courses:

50:014:130 Introduction to African-American Studies (3)
50:512:203 African-American History I (R) (3)
50:512:204 African-American History II (R) (3)
50:920:316 Race and Ethnicity (3)

Students must take one course from the following:

50:510:241 Precolonial Africa (3) or 50:070:356 Peoples and Cultures of Africa (3)
50:510:242 Africa since 1800 (3) or 50:790:335 Government and Politics of Sub-Saharan Africa (3)

Students must take one course from the following:

50:352:250 African-American Literature I (3)
50:352:251 African-American Literature II (3)
50:352:350 African-American Writing in Its Social Context (3)
50:352:451 Major African-American Writers (3)

Students must take one course from the following list of courses:

50:790:391 Quantitative Methods in Political Science (3)
50:830:215 Statistics for Social Science (3)
50:920:301 Methods and Techniques of Social Research (3)
50:960:183 Elementary Applied Statistics (R) (3)

Students must take a minimum of 6 credits from the following list of courses in the humanities. (Students may not use the same course(s) to meet both the major requirements and the humanities requirement.)

50:070:344 Dance of the African Diaspora (3)
50:082:285 Art of Africa (3)
50:352:250 African-American Literature I (3)
50:352:251 African-American Literature II (3)
50:352:350 African-American Writing in Its Social Context (3)
50:352:451 Major African-American Writers (3)
50:420:243 African and Caribbean Literature in Translation (3)
50:510:241 Precolonial Africa (3)
50:510:242 Africa since 1800 (3)
50:510:265 Imperialism (3) *
50:512:340 The Civil Rights Movement (3)
50:700:348,349 Jazz, Rock, Folk, and Pop (3,3) *
50:840:216 The Black Church (3)
50:920:430 African-American Culture (3)
50:965:215 Black Theater I (3)

In addition, appropriate special topics, independent study, and new courses may be substituted for the above courses with the approval of the director.

Students must take a minimum of 6 credits from the following courses in the social sciences. (Students may not use the same course(s) to meet both the major requirements and the social science requirement.)

50:070:356 Peoples and Cultures of Africa (3)
50:202:337 The Poor, Minorities, and Justice (3)
50:220:339 Economic Development (3) *
50:790:242 Urban Social Ecology (3) *
50:790:335 Government and Politics of Sub-Saharan Africa (3)
50:790:364 Politics of Minority Groups (3) *
50:830:203 The Psychology of Minority Groups (3)
50:910:352 Groups at Risk in Contemporary Society (3)
50:920:270 Social Change in the Global Economy (3)
50:920:321 Urban Sociology (3)
50:975:103 Urban and Regional Ecological Planning (3) *
50:975:204 Poverty and Urban Environmental Systems (R) (3)
50:975:219 History of the Ghetto and American Slums (R) (3)
50:975:369 Communications and Urban Problems (3) *

In addition, appropriate special topics, independent study, and new course offerings may be substituted for the above courses with the approval of the director.

Additional courses that are recommended for African-American Studies majors are the following:

50:070:341 Peoples and Cultures of Latin America (3)
50:198:110 Introduction to Computing (R) (3)
50:790:332 Urban Political Systems (3)
50:790:346 Urban Legal Problems (3)
50:790:360 Urban Public Policy (3)
50:790:469 Rich Nations / Poor Nations (3)
50:790:480 Radical Politics (3)

Minor Requirements

A minor in African-American Studies requires that students complete 18 credits.

The following courses are required for the minor:

50:512:203 African-American History I (R) (3)
50:512:204 African-American History II (R) (3)

* Requires approval of the African-American Studies program director prior to enrollment.

Students must select four courses from the following list of courses:

50:014:130 Introduction to African-American Studies (3)
50:070:356 Peoples and Cultures of Africa (3)
50:082:285 Art of Africa (3)
50:202:337 The Poor, Minorities, and Justice (3)
50:352:250 African-American Literature I (3)
50:352:251 African-American Literature II (3)
50:352:350 African-American Writing in Its Social Context (3)
50:352:451 Major African-American Writers (3)
50:510:241 Precolonial Africa (3)
50:510:242 Africa since 1800 (3)
50:512:340 The Civil Rights Movement (3)
50:790:335 Government and Politics of Sub-Saharan Africa (3)
50:830:203 The Psychology of Minority Groups (3)
50:840:216 The Black Church (3)
50:920:316 Race and Ethnicity (3)
50:975:204 Poverty and Urban Environmental Systems (3)
50:975:219 History of the Ghetto and American Slums (3)

Course

50:014:130. INTRODUCTION TO AFRICAN-AMERICAN STUDIES (3)
A broad study of the African-American which surveys the key issues affecting that group's status in the United States. The interdisciplinary dynamics of history, sociology, anthropology, psychology, politics, economics, urban studies, literature, general aesthetics, religion, philosophy, and media theories. Course defines and traces development of projected images to analyze and eliminate the myths.

AGRICULTURE AND ENVIRONMENTAL SCIENCES

Students who are interested in following careers in agriculture or environmental sciences may pursue one year of liberal arts preparation at the Camden College of Arts and Sciences before applying for admission to Cook College in New Brunswick. The first-year curriculum should include general biology (with laboratory), 50:160:115-116 Chemical Principles, expository writing, and 50:640:121,122 Unified Calculus I,II. Courses in the arts, human diversity, microeconomics and macroeconomics, the structure and function of American political systems, and computer competence also are required to complete degree programs at Cook College. Three additional years should be sufficient to complete the requirements for the B.S. degree. Cook College programs can be completed only through daytime attendance. For further information, contact the Office of Academic and Student Affairs, Cook College, Rutgers, The State University of New Jersey, 88 Lipman Drive, New Brunswick, NJ 08901-8525; 732/932-9465.

AMERICAN HISTORY 512

See History.

AMERICAN LITERATURE 352

See English.

AMERICAN STUDIES 050

See Walt Whitman Program.

ANTHROPOLOGY 070

See Sociology.

ART (Art 080, Art History 082)

See Fine Arts.

ARTS AND SCIENCES 090 (INTERDISCIPLINARY COURSES)

50:090:201,202. MAKERS OF THE MODERN WORLD (3,3)
An interdisciplinary approach to modern culture, which traces the roots of contemporary attitudes through the history of fiction and drama, political theory and philosophy, economics and natural science, and painting and film. Emphasis on Europe, with some attention to the United States. First term (nineteenth century) treats writers such as Dickens, Marx, Darwin, and Kipling, and movements such as romanticism, feminism, and modern art. Second term (twentieth century) treats topics such as literary responses to the First World War, the thoughts of Freud and Einstein, communism and fascism, science fiction, existentialism, and more recent developments. Each term may be taken separately and may be counted toward either an English or history major.

50:090:206. EARTH RESOURCES AND MANKIND (3)
An interdisciplinary and interdepartmental course that combines insights from several of the natural and social sciences. Focuses on the distribution of key natural resources and human patterns of consumption, regulation, conservation, and conflict that are part of the total ecological system. Taught by staff from various natural and social science departments.

50:090:291,292. INTELLECTUAL HERITAGE (3,3)
Prerequisite: 50:350:102.
A team-taught interdisciplinary approach to some of the great ideas that have helped shape the development of our civilization. Examines one or more themes in-depth through classic texts of literature, philosophy, history, natural science, and the social sciences. Course requirements include brief writing assignments amounting to at least 4,000 words.

50:090:293,294. SCIENCE, TECHNOLOGY, AND SOCIETY (3,3)
Prerequisite: 50:350:102.
A team-taught interdisciplinary approach to some of the great issues that face the world; examined from the differing perspectives of the natural sciences, the social sciences, and the humanities. Course requirements include brief writing assignments amounting to at least 4,000 words.

50:090:323. THE BIBLE AND WESTERN LITERATURE (3)
Studies examples of the major genres of biblical literature, utilizing historical and literary critical methods developed both in the field of English literature and in biblical studies. Central symbols and themes along with stylistic and structural characteristics are extrapolated and used to identify and analyze major works in Western literature that exhibit the direct and indirect influence of biblical literature.

ASTRONOMY 100

Astronomy is taught by the Department of Physics. See Physics 750 for listing of faculty.

50:100:306. DESCRIPTIVE ASTRONOMY (R) (3)
Lec. 3 hrs.; occasional short field trips.
Introduction to astronomy and astrophysics. Emphasis on the solar system and Kepler's Laws, stellar magnitudes, distances, and stellar evolution, the galaxy, black holes, and the Big Bang. Recommended for nonscience majors; however, numerical examples are used. Depending on the time of year, students also may be required to participate in a star-viewing program.

BIOCHEMISTRY 115

See Chemistry.

BIOLOGICAL SCIENCES (Biology 120, Botany 130, Microbiology 680, Physiology 760, Plant Physiology 780, Zoology 990)

Web Site: http://www.camden.rutgers.edu/dept-pages/biology/index.html

Major requirements in biology can be completed only through daytime attendance.

Department of Biological Sciences

Chairperson: Patrick J. McIlroy

Professors:

Dennis J. Joslyn, Associate Dean; B.S., St. Procopius College; M.S., Ph.D., Illinois
Hsin-Yi Lee, B.S., National Taiwan; M.A., Oberlin College; Ph.D., Minnesota
Mark D. Morgan, B.S., California (Davis); M.S., Wisconsin (Milwaukee); Ph.D., California (Davis)

Associate Professors:

Robert C. Evans, B.A., Dartmouth College; M.S., Ph.D., Ohio State
Joseph V. Martin, B.A., Northwestern; Ph.D., Southern California
Patrick J. McIlroy, B.A., Ph.D., California (Berkeley)
William M. Saidel, B.S., Ph.D., Massachusetts Institute of Technology

Assistant Professors:

Daniel Shain, B.S., M.S., New Hampshire; Ph.D., Colorado State
Lisa T. Szeto, BA., M.A., M.Phil., Ph.D., Columbia

Assistant Instructor:

Charlene W. Sayers, B.A., M.S., Rutgers (Camden)

Major Requirements

The major in biology is designed to meet the minimum requirements for students interested in biology, premedicine, predentistry, preveterinary medicine, and related fields of biological concentration. All students must complete the core program described below. Those students planning a career in the biological sciences are advised to take more than the core program. They should consult with their advisers concerning the selection of additional courses. Students interested in biomedical technology should see information regarding that program in this chapter.

First Year

The following core program totaling 29 or 30 credits is required of all majors.

50:120:101,102 General Biology (4,4) or 50:120:127,128, 129,130 Principles of Biology (3,3,1,1)
50:160:115-116 Chemical Principles I,II (3,3)
50:160:125-126 Chemical Principles Laboratory I,II (1,1)
50:350:101-102 English Composition I,II (3,3)
50:640:130 Calculus for Business, Economics, and Life Sciences (3) or 50:640:121 Unified Calculus I (4)*
Elective (4)

Sophomore, Junior, and Senior Years

In addition to the above, the following core program must be completed by all majors.

50:120:305-306 Molecular Biology (3) and Laboratory (1) or 50:160:325 Analytical Chemistry (4)
50:120:307-308 Genetics (3) and Laboratory (1)
50:120:351,353 General Ecology (3) and Laboratory (1) or 50:130:331-332 Plant Ecology (3) and Laboratory (1)
50:130:310-311 Developmental Botany (3) and Laboratory (1) or 50:990:304,310 Vertebrate Embryology (3) and Laboratory (1)
50:160:335-336 Organic Chemistry (3,3)
50:160:339-340 Organic Chemistry Laboratory (1,1)
50:750:203-204 General Physics (3,3)
50:750:205-206 General Physics Laboratory (1,1)
50:760:301-302 General Physiology (3) and Laboratory (1) or 50:780:301,383 Plant Physiology (3) and Laboratory (1)
Four biology electives of 3 or 4 credits each at the 300 level or above (50:120:491,492 Special Problems in Biology may satisfy the requirement of up to two biology electives [or up to 8 credits], if taken from different instructors.)

By selecting the appropriate biology core and elective courses in consultation with a faculty adviser, the student may concentrate in one of the following specialized areas:

1. Botany
2. Cell and developmental biology
3. Ecology
4. Genetics and evolutionary biology
5. Microbiology and immunology
6. Molecular biology (biotechnology)
7. Neurobiology
8. Physiology and anatomy (physical therapy)
9. Zoology

Additional courses in electives are required to bring the total number of credits to 120. These electives should include sufficient selections from outside the natural sciences to satisfy the general college requirements for the B.A. degree.

Advanced undergraduate students may enroll in one or more graduate (500 level) biology courses if permission is first obtained from the instructor.

It is strongly recommended that students who are planning to continue their education in professional schools or graduate schools complete 16 credits of a modern foreign language.

Minor Requirements

Students not majoring in biology may graduate with a minor in biology if they complete 18 credits of work in biology, with at least 10 credits above the 100 level, and 6 credits at the 300 to 400 level (excluding 50:120:491,492). Transfer students who want to minor in biology at Rutgers–Camden, but who have fulfilled all the requirements for

* Although either 50:640:130 or 121 will satisfy the mathematics requirement, students who plan to pursue graduate studies in the biological sciences are advised to take 50:640:121 and 122.

this minor elsewhere, must take a minimum of two courses from among the offerings of this biological sciences department at the 300 level and above. A student is free to design his or her own minor program from among the courses listed under the biological sciences. Furthermore, a nonmajor who takes the 18 required credits in botany may graduate with a minor in botany; a student taking 18 credits in zoology may minor in zoology. Biology majors also have the option of minoring in botany or zoology, but no course may be counted both as part of a complete 18 credits in a botany or zoology minor and to the 40 biology credits which count toward the major.

Transfer Credit

Transfer students who want to major in biology at Rutgers–Camden, but who have fulfilled all the requirements for this major elsewhere, must take a minimum of 14 credits from among the offerings of this biology department at the 300 level and above. Only those credits earned within the past five years are transferable as biology (or science) credits. Nonscience majors may transfer only one course in biology toward fulfilling the science requirement.

Departmental Honors Program

A candidate for honors should consult his / her academic adviser or department chairperson during the spring term of the junior year. The student must have completed at least 75 credits of course work with a cumulative grade-point average of 3.5 and demonstrated an aptitude for original research. Once admitted, the candidate must enroll in 50:120:491,492 Special Problems in Biology (4 credits in each term of the senior year), where he / she will carry out a research project under guidance of a biology faculty member and write an honors paper which must be accepted by three faculty members of the biology department who constitute an Honors Committee. The candidate must maintain the requisite grade-point average until the end of the senior year and take a comprehensive examination (oral and / or written, prepared by the Honors Committee) during the last week of classes of the final term. The Honors Committee will determine whether the student's work merits honors, high honors, or no honors.

Teacher Certification in Biology

Students seeking teacher certification in biology must complete the requirements for the major in the biology department as well as satisfy other requirements for certification. For details regarding admission to the teacher certification program and its requirements, students should consult both their department adviser and the chairperson of the education department.

Courses (Biology 120)

50:120:101,102. General Biology (R) (4,4)
Lec. 3 hrs., lab. 3 hrs. 50:120:101 is prerequisite for 102.
Principles of biology, including the cellular basis of life; genetics; evolution; and the morphology, physiology, and development of plants and animals, including man. Required laboratory includes techniques such as microscopy, dissection, physiological experimentation, and use of the scientific method.

50:120:103. Biology of Cancer (R) (3)
Satisfies the college's natural sciences requirement for nonscience majors. Although open to biology and biomedical technology majors, does not satisfy the biology major elective requirement.
Discussion of the basic mechanisms underlying carcinogenesis and its prevention and treatment. Topics include the cellular basis of cancer, regulation of cellular reproduction, cancer as a hereditary disease, induction of cancer, occupational cancer, consumer products and cancer, and prevention and treatment of cancer.

50:120:105. The Facts of Life (R) (3)
Not normally open to biology or biomedical technology majors. Satisfies the college's natural science requirement for nonscience majors.
Introduction (without laboratory) to biological principles. Covers basic concepts involved in understanding the structure, function, and evolution of organisms with an emphasis placed on the application of biological knowledge to problems of man and society. Topics include human nutrition, disease, reproduction and development, genetic engineering, pollution, and conservation.

50:120:106. Human Reproduction and Development (R) (3)
Not normally open to biology or biomedical technology majors. Satisfies the college's natural science requirement for nonscience majors.
Topics include the hormonal control of reproduction, infertility, artificial insemination, "test-tube" babies, sex manipulation, abortion and miscarriage, genetic counseling, and birth defects.

50:120:110. Biology of Disease (R) (3)
Not normally open to biology or biomedical technology majors. Satisfies the college's natural science requirement for nonscience majors.
Scientific overview of the major human diseases of current interest.

50:120:127,128. Principles of Biology (R) (3,3)
Corequisites: 50:120:129,130.
Principles of biology, including the cellular basis of life, genetics, evolution, and the morphology, physiology, and development of plants and animals, including man.

50:120:129,130. Laboratory in Principles of Biology (R) (1,1)
Corequisites: 50:120:127,128.
Includes techniques such as microscopy, dissection, physiological experimentation, and the use of scientific method.

50:120:201. Ecosystem Ecology (3)
Satisfies the natural science requirement for nonscience majors. Credit does not apply toward satisfaction of the biology major elective requirement.
A theoretical analysis of the interactions between biological populations and their environments.

50:120:202. Human-Ecosystem Interactions (R) (3)
Satisfies the college's natural science requirement for nonscience majors. Although open to biology majors, does not satisfy the biology major elective requirement.
Discussion and analysis of environmental problems facing the human species. Emphasis on physical and biological principles affecting population growth; resource and energy consumption; and the pollution of the air, water, and land. Alternative solutions to environmental problems discussed in terms of conflicting economic and political values.

50:120:305. Molecular Biology (3)
Lec. 3 hrs. Prerequisites: 50:120:101,102 and two terms of organic chemistry.
Molecular mechanisms involved in the expression of genetic information; the control of macromolecular synthesis; the aggregation of macromolecules into DNA-protein complexes, membranes, chromosomes, and cell organelles; and an introduction to recombinant DNA technology.

50:120:306. Molecular Biology Laboratory (1)
Pre- or corequisites: 50:120:305 and two terms of organic chemistry. This course usually is taken concurrently with 50:120:305.
Introduction to protein purification techniques, gene cloning, and recombinant DNA technology.

50:120:307. GENETICS (3)
Prerequisites: 50:120:101,102 and two terms of organic chemistry or permission of instructor.
Organization, expression, and evolution of hereditary elements in procaryotes and eucaryotes; principles and mechanisms of inheritance at the classical, molecular, cytological, and population levels; emphasis on molecular genetic analysis.

50:120:308. GENETICS LABORATORY (1)
Corequisite: 50:120:307.
Applications of genetics principles reviewed through demonstrations, problem solving, and research.

50:120:309. EXPERIMENTAL GENETICS (2)
Pre- or corequisite: 50:120:307.
Experimental techniques employed in the study of genetics utilizing plants, animals, and microorganisms.

50:120:310. EVOLUTION (3)
Prerequisites: 50:120:101,102.
A study of the principles and mechanisms of organic evolution; the history of evolutional theory, the origin of life, and the role of the genetic systems, variation, and natural selection in species formation; molecular evolution.

50:120:334. CELL BIOLOGY (3)
Prerequisites: 50:120:101,102 and two terms of organic chemistry or permission
of instructor.
Structural analysis and functional correlations of cytoplasmic and nuclear components of plant, animal, and microbial cells; analysis of mitosis and meiosis; analysis of developmental mechanisms at the cellular level. Introduction to techniques and tools of biochemistry, cytology, and tissue culture.

50:120:335. CELL BIOLOGY LABORATORY (1)
Prerequisite: 50:120:334.
Introduction to techniques and tools of biochemistry, cytology, and tissue culture.

50:120:351. GENERAL ECOLOGY (3)
Prerequisites: 50:120:101,102 or permission of instructor. Pre- or corequisite: 50:640:121 or 130.
A study of the interrelations of organisms and their environments. Principles of growth, regulation, and distribution and structure; energetics of populations and communities explored.

50:120:353. GENERAL ECOLOGY LABORATORY (1)
Pre- or corequisite: 50:120:351. This course is usually taken concurrently with 50:120:351.
Field and laboratory exercises illustrating concepts of general ecology.

50:120:401. MICROTECHNIQUE AND ITS APPLICATIONS (3)
Prerequisites: 50:120:101,102 and 50:990:311 or permission of instructor.
Covers topics on the theory and methods of fixation, sectioning, and staining, including techniques in histochemistry. Among others, the following procedures are taught: paraffin, plastic, and frozen sectioning; standard staining methods (e.g., hematoxylin and eosin), as well as special methods for identifying carbohydrates, enzymes, lipids, and other cell tissue components; black and white photomicrography and processing.

50:120:402. MICROTECHNIQUE AND ITS APPLICATIONS LABORATORY (1)
Corequisite: 50:120:401.
Exercises in histologic, histochemical, and related techniques.

50:120:410. ELECTRON MICROSCOPY (2)
Prerequisites: 50:120:101,102.
Use of the transmission electron microscope and ultramicrotome. Preparation of samples and examination of thin sections of tissues, negative stained materials, and replicas of cells. Immunolabeling and cytochemistry of cells.

50:120:480. RECOMBINANT DNA TECHNOLOGY (3)
Lec. 3 hrs. Prerequisite: 50:120:306.
Examination of the recombinant DNA technology and its utility in specific medical and industrial applications as well as its use in basic research. Topics include discussion of in vitro mutagenesis, heterologous and gene expression in a variety of hosts, disease diagnosis, and gene therapies using genetic engineering, as well as the ecological / societal impacts of recombinant DNA technology.

50:120:491,492. SPECIAL PROBLEMS IN BIOLOGY (BA,BA)
Prerequisite: Permission of instructor. No more than 8 credits can be counted toward the biology major (maximum of 4 credits per instructor).
Designed to meet the needs of outstanding students who have demonstrated an aptitude for original work and may wish to undertake special problems.

50:120:494. SEMINAR IN BIOLOGY (2)
Prerequisite: Permission of instructor.
Members of the seminar prepare and present reports on current biological topics. The specific topic of each term's offering announced during registration.

50:120:495,496. HONORS PROGRAM IN BIOLOGY (BA,BA)
Open only to biology majors who have completed at least 75 credits of course work with a 3.5 cumulative grade-point average.

Courses (Botany 130)

50:130:307. COMPARATIVE MORPHOLOGY OF PLANTS (3)
Prerequisites: 50:120:101,102 or permission of instructor.
An evolutionary survey of the plant kingdom: development, adaptations for survival, and representative types and life cycles from the simplest to the most advanced groups.

50:130:308. COMPARATIVE MORPHOLOGY OF PLANTS LABORATORY (1)
Corequisite: 50:130:307.
Field and laboratory exercises to study plants, ranging from the simplest to the most advanced groups.

50:130:310. DEVELOPMENTAL BOTANY (3)
Prerequisites: 50:120:101,102.
A study of the hormonal, physiological, and environmental control mechanisms underlying morphological changes in the life cycles of angiosperms. Topics include embryogenesis, seed dormancy and germination, seedling growth, flowering, fruiting, and senescence.

50:130:311. DEVELOPMENTAL BOTANY LABORATORY (1)
Corequisite: 50:130:310.
Laboratory studies of the anatomical, morphological, and hormonal changes that occur throughout the life cycles of plants.

50:130:322. SYSTEMATICS AND ECOLOGY (3)
Prerequisites: 50:120:101,102.
Designed to integrate principles of taxonomy, ecological interactions, and morphology. Field trips are taken to representative New Jersey plant communities to provide practical experience in collecting and identifying botanical materials.

50:130:323. SYSTEMATICS AND ECOLOGY LABORATORY (1)
Corequisite: 50:130:322.
Field and laboratory exercises designed to integrate principles of taxonomy, ecological interactions, and morphology.

50:130:331. PLANT ECOLOGY (3)
Prerequisites: 50:120:101,102.
A study of plants in relation to their environment with emphasis on field studies of plant communities in New Jersey.

50:130:332. PLANT ECOLOGY LABORATORY (1)
Corequisite: 50:130:331.
Field and laboratory exercises focusing on plants and their relationship to their environment.

50:130:401. MYCOLOGY (3)
Prerequisites: 50:120:101,102.
An examination of the major groups of fungi emphasizing morphology, modes of growth and development, mechanisms of spore dispersal, and the role of fungi as pathogens.

50:130:402. MYCOLOGY LABORATORY (1)
Corequisite: 50:130:401.
Introduction to the techniques involved in growing fungi in culture and studying their morphology, physiology, and development.

50:130:430. FIELD ECOLOGY (2)
Prerequisites: 50:130:322 or 331, 50:120:351, and / or permission of instructor. Registration limited. Covers five to ten days during spring recess; outdoor camping and cooking for longer trips.
A field study of major plant communities in the general area of Everglades National Park, Great Smoky Mountains National Park, or the Mid-Atlantic States.

Courses (Microbiology 680)

50:680:211. MICROBIOLOGY AND ITS APPLICATION (4)
Prerequisites: 50:120:101,102 or 50:990:253, or permission of the instructor. Designed primarily for students in the nursing program; will not satisfy the biology or biomedical technology requirements.
Structure and behavior of bacteria, fungi, and viruses, with emphasis on forms pathogenic for humans. Principles of immunology and review of selected animal parasites.

50:680:212. MICROBIOLOGY AND ITS APPLICATION LABORATORY (1)
Corequisite: 50:680:211.
Basic laboratory techniques for characterizing bacteria, fungi, and viruses with special emphasis on clinical techniques used for pathogenic organisms; elementary immunological techniques.

50:680:301. GENERAL MICROBIOLOGY (3)
Prerequisites: 50:120:101,102.
Structure and behavior of bacteria as well as selected fungi, algae, protozoa, and viruses; microbial genetics; microbial ecology and biotechnology; principles of immunity and disease.

50:680:303. GENERAL MICROBIOLOGY LABORATORY (1)
Corequisite: 50:680:301.
Basic laboratory techniques for isolating, examining, and identifying bacteria, fungi, and viruses; elementary immunological techniques.

50:680:304. ADVANCED MICROBIOLOGY (3)
Prerequisite: 50:680:301.
Deals with a more in-depth presentation of selected topics surveyed in 50:680:301 General Microbiology. Topics include aspects of virology, bacterial physiology, plasmids and genetic engineering, and pathogenesis of bacterial, fungal, and viral diseases.

50:680:311. IMMUNOLOGY AND SEROLOGY (3)
Prerequisites: 50:120:101,102.
Nature of antigens and antibodies and their relationship to humoral and cellular immunity. Discussion of laboratory procedures for the study of antigen-antibody reactions and their use for diagnostic and analytical purposes.

50:680:312. IMMUNOLOGY AND SEROLOGY LABORATORY (1)
Prerequisites: 50:120:101,102. Pre- or corequisite: 50:680:311 or permission of instructor.
Practice with the representative basic procedures used in immunization and the laboratory study of antigen-antibody reactions.

Courses (Physiology 760)

50:760:301. GENERAL PHYSIOLOGY (3)
Prerequisites: 50:120:101,102 and one term of organic chemistry.
A study of the functions of living things with emphasis on the chemical and physical properties of protoplasm, the conversion of energy and matter through cell respiration and synthesis, the transport of materials across membranes, cell excitability and contraction, and regulatory processes.

50:760:302. GENERAL PHYSIOLOGY LABORATORY (1)
Pre- or corequisite: 50:760:301. This course is usually taken concurrently with 50:760:301.
Experimental investigation of various functions of cells by isolation and characterization of subcellular parts and examination of cellular processes such as membrane transport and cell excitability.

50:760:304. ANIMAL PHYSIOLOGY (3)
Prerequisite: 50:760:301 or permission of instructor.
A comparative study of physiological systems; nutrition, circulation, and respiration; osmoregulation and excretion; nervous and endocrine coordination.

50:760:305. ANIMAL PHYSIOLOGY LABORATORY (1)
Corequisite: 50:760:304.
Experimental examination of the various vertebrate organ systems and how different animals deal with physiological problems.

50:760:350. INTRODUCTORY HUMAN PHYSIOLOGY (3)
Prerequisites: 50:120:101,102.
Principles of human physiology, including homeostasis and feedback mechanisms; overview of circulatory, respiratory, digestive excretory, endocrine, and nervous systems.

50:760:351. LABORATORY IN HUMAN PHYSIOLOGY (1)
Prerequisites: 50:120:101,102. Corequisite: 50:760:350.
Experimental examination of vertebrate physiology with an emphasis on human systems.

Course (Plant Physiology 780)

50:780:301. PLANT PHYSIOLOGY (3)
Prerequisites: 50:120:101,102 and one term of organic chemistry.
Selected aspects of the chemical and physical processes occurring in plants, including water relations and transpiration, photosynthesis, respiration, translocation of sugars, the assimilation of nitrogen and sulfur, mineral nutrition, and the metabolism of lipids and natural products.

50:780:383. PLANT PHYSIOLOGY LABORATORY (1)
Corequisite: 50:780:301.
Introduction to experimental techniques used to study the biochemistry and physiology of plant growth.

Courses (Zoology 990)

50:990:253-254. ANATOMY AND PHYSIOLOGY (4,4)
Pre- or corequisites: (For 253) 50:120:101, 50:160:107, 50:990:255, or permission of instructor. (For 254) 50:990:253, 50:990:255,256, or permission of instructor. Designed primarily for nursing students; will not satisfy biology or biomedical technology requirements.
A survey of the human body in light of basic biological principles. The mechanisms and interactions of its systems contributing to its adaptive behavior studied and integrated with gross and microscopic anatomy.

50:990:255-256. ANATOMY AND PHYSIOLOGY LABORATORY (1,1)
Corequisites: 50:990:253-254.
Demonstrations and exploration of the anatomy and physiology of representative mammals.

50:990:301. COMPARATIVE ANATOMY OF VERTEBRATES (3)
Prerequisites: 50:120:101,102 or permission of instructor.
Corequisite: 50:990:302.
A comparative study of representative chordates with emphasis on mammalian and human anatomy.

50:990:302. COMPARATIVE ANATOMY OF VERTEBRATES LABORATORY (1)
Corequisite: 50:990:301.
Gross anatomy of representative vertebrates with emphasis on mammalian and human systems.

50:990:304. VERTEBRATE EMBRYOLOGY (3)
Prerequisites: 50:120:101,102, two terms of organic chemistry, or permission of instructor.
Introductory course that emphasizes cellular and molecular aspects of development. Both vertebrates and invertebrates considered.

50:990:306. INVERTEBRATE ZOOLOGY (3)
Prerequisites: 50:120:101,102 or permission of instructor.
A guided tour of protists and animals without backbones comprising 95 percent of the animal kingdom. Emphasis placed on evolutionary and ecological relationships that make an understanding and appreciation of this diverse group of animals possible.

50:990:307. INVERTEBRATE ZOOLOGY LABORATORY (1)
Corequisite: 50:990:306.
Laboratory exercises designed to introduce students to the 95 percent of all animals without a backbone.

50:990:308. VERTEBRATE ZOOLOGY (3)
Prerequisites: 50:120:101,102 or permission of instructor.
A study of the vertebrates with regard to their systematics, ecology, and behavior. Emphasizes field studies of freshwater and terrestrial vertebrates, and identification of New Jersey's terrestrial vertebrate species, through laboratory examination of specimens and field labs to explore New Jersey habitats.

50:990:309. VERTEBRATE ZOOLOGY LABORATORY (1)
Corequisite: 50:990:308.
Identification of representative vertebrates through examination of specimens and field studies of New Jersey's vertebrates.

50:990:310. VERTEBRATE EMBRYOLOGY LABORATORY (1)
Corequisite: 50:990:304.
The early development of representative animals with emphasis on the frog, chick, and pig.

50:990:311. ANIMAL HISTOLOGY (3)
Prerequisites: 50:120:101,102 or permission of instructor.
Corequisite: 50:990:312.
Covers the basic structure and function of animal tissues and the organs derived from them.

50:990:312. ANIMAL HISTOLOGY LABORATORY (1)
Corequisite: 50:990:311.
The study and interpretation of histologic preparations of mammalian tissues and organs, mainly human.

50:990:317. ANIMAL PARASITES (3)
Prerequisites: 50:120:101 and 102 or 105 or permission of instructor.
Deals with the parasites of man and other animals. The biology, morphology, taxonomy, distribution, economic importance, prevention, control, pathogenesis, and treatment of parasites responsible for diseases such as amoebiasis, trypanosomiasis, coccidiosis, toxoplasmosis, malaria, schistosomiasis, hookworm, trichinosis, and hydatid disease, among others. Arthropod parasites such as mosquitoes, fleas, ticks, lice, and biting flies also considered.

50:990:318. ANIMAL PARASITES LABORATORY (1)
Corequisite: 50:990:317.
The study of selected protozoan, helminth, and arthropod parasites of various animals, including humans.

50:990:321. ORNITHOLOGY (3)
Prerequisites: 50:120:101,102.
The biology of birds, emphasizing their systematics, ecology, behavior, and conservation. Regular field trips provide practical experience in species identification of New Jersey's birds and illustrate field techniques for studying their ecology and behavior.

50:990:322. ORNITHOLOGY LABORATORY (1)
Corequisite: 50:990:321.
Field and laboratory exercises to provide practical experience in species identification of New Jersey's birds and illustrate techniques for studying their ecology and behavior.

50:990:331. ANIMAL BEHAVIOR (3)
Prerequisites: 50:120:101,102 or 50:830:381.
Ecological and evolutionary bases and contexts of animal behavior, emphasizing interactions with the physical and biological environments. Focuses on the principles and adaptive significance of animal design, territoriality, communication, migration, and individual and social behavior in a variety of species spanning the animal kingdom.

50:990:357. PATHOPHYSIOLOGY (3)
Prerequisites: 50:990:253-254 or permission of instructor. Designed primarily
for students in the nursing program; will not satisfy the biology major elective requirement.
An introduction to the physiological basis of disease in humans. Topics covered include inflammation, wound healing, immune responses, neoplasia, and metabolic disorders.

BIOMEDICAL TECHNOLOGY 124

Program Adviser: P.J. McIlroy

Coadjutant Faculty (Cooper Hospital / University Medical Center):
Louis Brownstein, Program Director, Cardiovascular Perfusion; B.A., C.C.P. (ABCP), Temple
Edison Catalano, Medical Director, Medical Technology; M.D., Montevideo (Uruguay)
Anthony DelRossi, Medical Director, Cardiovascular Perfusion; B.A., La Salle College; M.D., Thomas Jefferson
Diana Hullihen, Program Director, Medical Technology; B.S., M.A., M.T., (ASCP), Rowan

This program leads to the degree of Bachelor of Science in biomedical technology from Camden College of Arts and Sciences and offers two tracks: medical technology and cardiovascular perfusion. Courses within the program satisfy the general requirements for all degree candidates and meet the specific requirements of the National Accrediting Agency for Clinical Laboratory Sciences or the Accrediting Committee for Cardiovascular Perfusion. This program can be completed only through daytime attendance.

Major Requirements

The students in this program complete three consecutive years of undergraduate study at the Camden College of Arts and Sciences. For the track in medical technology, the fourth (or senior) year is taken at an affiliated school of medical technology. During this year, which is a twelve-month year, the student receives lectures and practical experience in such different phases of medical technology as hematology, microbiology, blood banking, and chemistry. Upon successful completion of the four-year program, the student receives the B.S. degree and is eligible to take the Board of Registry examinations leading to the medical technologist certification.

For the track in cardiovascular perfusion, a fourth and a fifth year are taken at an affiliated school of cardiovascular perfusion. During this course of study, which lasts twenty-

four months, the student receives lectures and practical experience in human anatomy, biochemistry, pharmacology, cardiovascular physiology and pathology, medical ethics, and perfusion technology. Upon successful completion of the five-year program, the student receives the B.S. degree and is eligible to take the Board of Registry examinations leading to the cardiovascular perfusionist certification.

Three years of college work, representing a minimum of 86 credits, must be completed before the hospital (laboratory) internship begins. Application for admission to the school(s) of medical technology or cardiovascular perfusion should be made at the beginning of the junior year, and it is strongly suggested that the student consult with the biomedical technology adviser in the biology department before doing so. Selection is made on a competitive basis, and since each school may have a larger number of applicants than openings, not all applicants necessarily can be accepted. Should a student not be accepted by a school of medical technology or cardiovascular perfusion, the student may, with proper course selection, continue the senior year as a biology major and earn the B.A. degree. However, once the B.A. in biology has been obtained, completion of the prescribed curriculum at a school of medical technology or a school of cardiovascular perfusion cannot be applied to a second degree.

The following courses are required for both tracks (42 or 43 credits):

First Year

First Term

50:120:101 General Biology (4)
50:160:115 Chemical Principles I (3)
50:160:125 Chemical Principles Laboratory I (1)
50&64:350:101 English Composition I (3)
50&64:640:130 Calculus for Business, Economics, and Life Sciences (3) or 50&64:640:121 Unified Calculus I (4)

Second Term

50:120:102 General Biology (4)
50:160:116 Chemical Principles II (3)
50:160:126 Chemical Principles Laboratory II (1)
50&64:350:102 English Composition II (3)
Elective

Additional courses in biology, chemistry, and computer science are required as follows:

50:120:307-308 Genetics (3) and Laboratory (1)
50:160:335-336 Organic Chemistry I,II (3,3)
50:160:339-340 Organic Chemistry Laboratory I,II (1,1)
50&64:198:110 Introduction to Computing (3)
50:760:301-302 General Physiology (3) and Laboratory (1)

At least one course from each of the following is required:

1. one term of history (chosen from 50&64:510:101,102; 50&64:512:201,202; 50&64:730:301,302; 50&64:790:371,372,375; 50&64:840:211,212)
2. a one-term course from a foreign language department or any of the following English courses: 50&64:350:239, 300,301, or 302
3. one term of art, music, or theater arts
4. one term of economics, political science, psychology, sociology, anthropology, or urban studies
5. one term of 50&64:090:291 or 292 Intellectual Heritage

For the individual tracks, the following additional courses are required:

Medical Technology (12 credits)

50:120:305-306 Molecular Biology (3) and Laboratory (1) or 50:160:325 Analytical Chemistry (4)
50:680:301-303 General Microbiology (3) and Laboratory (1)
50:680:311-312 Immunology and Serology (3) and Laboratory (1)

Cardiovascular Perfusion (15 credits)

50:750:203-204 General Physics I,II (3,3)
50:750:205-206 General Physics Laboratory I,II (1,1)
50:760:350-351 Human Physiology (3) and Laboratory (1)
50:960:183 Elementary Applied Statistics (3), 50:960:283 Introduction to Statistics (3), 50:960:452 Introduction to Biostatistics (3), or 50&64:830:378 Statistics for Social Science (3)

Additional credits in courses that satisfy the biology major and / or the general college requirements must be taken to reach a minimum of 86 credits before the senior year. Other electives recommended by the accrediting bodies in addition to those listed above under the alternative track include anatomy, biochemistry, embryology, management, parasitology, and mycology.

Courses

50:124:491. MEDICAL TECHNOLOGY I (COOPER HOSPITAL) (17)
Prerequisite: Acceptance into the School of Medical Technology, Cooper Hospital, University Medical Center.
Study and laboratory and clinical experience in medical technology at the School of Medical Technology.

50:124:492. MEDICAL TECHNOLOGY II (COOPER HOSPITAL) (17)
Prerequisite: Acceptance into the School of Medical Technology, Cooper Hospital, University Medical Center.
Continued study and laboratory and clinical experience in medical technology at the School of Medical Technology.

50:124:493. CARDIOVASCULAR PERFUSION I (COOPER HOSPITAL) (14)
Prerequisite: Acceptance into the School of Cardiovascular Perfusion, Cooper Hospital, University Medical Center.
Study and laboratory and clinical experience in cardiovascular perfusion at the School of Cardiovascular Perfusion.

50:124:494. CARDIOVASCULAR PERFUSION II (COOPER HOSPITAL) (14)
Prerequisite: Acceptance into the School of Cardiovascular Perfusion, Cooper Hospital, University Medical Center.
Continued study and laboratory and clinical experience in cardiovascular perfusion at the School of Cardiovascular Perfusion.

50:124:495. CARDIOVASCULAR PERFUSION III (COOPER HOSPITAL) (14)
Prerequisite: Acceptance into the School of Cardiovascular Perfusion, Cooper Hospital, University Medical Center.
Continued study and laboratory and clinical experience in cardiovascular perfusion at the School of Cardiovascular Perfusion.

50:124:496. CARDIOVASCULAR PERFUSION IV (COOPER HOSPITAL) (14)
Prerequisite: Acceptance into the School of Cardiovascular Perfusion, Cooper Hospital, University Medical Center.
Continued study and laboratory and clinical experience in cardiovascular perfusion at the School of Cardiovascular Perfusion.

BOTANY 130

See Biological Sciences.

BUSINESS ADMINISTRATION 135

Courses formerly listed under Business Administration 135 are now listed under Finance 390, Management 620, and Marketing 630 in the School of Business–Camden section's Courses chapter.

BUSINESS LAW 140

See the Courses chapter in the School of Business–Camden.

CHEMISTRY (Biochemistry 115, Chemistry 160)

Web Site: http://camchem.rutgers.edu

Major requirements in chemistry can be completed only through daytime attendance.

Department of Chemistry

Chairperson: Luke Anthony Burke

Professors:

Luke Anthony Burke, B.S., Fordham; M.S., New York; D.Sc., Université Catholique de Louvain (Belgium)
Sidney Allen Katz, B.A., Rutgers; Ph.D., Pennsylvania
Jing Li, B.S., Huazhong Normal (P.R. China); M.S., SUNY (Albany); Ph.D., Cornell

Associate Professors:

Georgia A. Arbuckle, B.A., Rutgers; Ph.D., Pennsylvania
Stanley Gannaway Davis (emeritus), B.S., Purdue; M.S., Ph.D., Chicago
Clifford Owens (emeritus), B.A., Rutgers; M.S., Ph.D., Drexel
Donald M. Scheiner (emeritus), B.S., M.F.S., Ph.D., Cornell

Assistant Professors:

Nancy Hopkins, B.S., Chestnut Hill; M.S., Villanova; Ph.D., Michigan
Paul Maslen, B.S., Monash (Australia); Ph.D., Cambridge (U.K.)
Alex J. Roche, B.S., Ph.D., Durham (U.K.)

Assistant Instructor:

Mary R. Craig, B.A. SUNY (Binghamton); M.S., Missouri (Rolla)
Paul Fazen, B.A., Rutgers; Ph.D., Pennsylvania

The Department of Chemistry is accredited by the American Chemical Society's Committee of Professional Training. Students who complete the prescribed programs of study are certified by the committee. The student who plans to major in chemistry may choose from among four options. The Certification Programs and the Traditional Chemistry Program prepare the student for graduate study in chemistry or biochemistry or for employment as a professional chemist or biochemist. The Biochemistry Program prepares the student for graduate study in biochemistry or one of the allied health fields, or for employment in related fields. The Chemistry-Business Program is directed to entry-level preparation for the nonlaboratory aspects of the chemical profession and the academic prerequisites for pursuit of the M.B.A. degree.

Major Requirements

Traditional Chemistry Program

Students planning to pursue the Traditional Chemistry Program must include in their program 50:160:115-116, 125-126, 325-326, 335-336, 339-340, 343, 345-346, 347-348; two additional 3- or 4-credit courses selected from among 50:115:403-404, 50:115 or 50:160:413 through 448, 2 credits of 491-492, and one advanced laboratory. The last requirement may be fulfilled by electing 50:115:407, 50:160:412, 438, or 446, or an advanced course that includes a laboratory, such as 50:160:415 or 50:160:448. Students also must achieve a grade of C or better in at least ten of the 3- or 4-credit chemistry and biochemistry courses. Students also must include 50:640:121, 122, 221, and 314 or 363, and 50:750:203-204, 205-206 in their programs. For students contemplating graduate study, 50:640:250 and 314, and at least two terms of foreign language are recommended.

American Chemical Society Certification Program

Students who wish to qualify for any American Chemical Society certification option must complete the Traditional Chemistry Program, include specified upper-level courses, and complete 4 credits of research courses in 50:115 or 50:160:450 or above. Five certification options are offered: chemistry, chemical physics, materials, polymers, and biochemistry. In the Chemistry Option, 50:160:413 must be included among two 400-level, 3- or 4-credit courses.
In the Chemical Physics Option, 50:750:232 and one other 200 level or higher physics course, plus at least 6 credits from advanced theoretical chemistry, advanced physics, or advanced mathematics must be completed. In the Materials Option, 50:160:413, 437, 438 must be completed. In the Polymers Option, 50:160:413, 444, 446 must be completed. For those chemistry students interested in biological chemistry, there is the Biochemistry Option in which 50:115:403,404,
407,408, and 50:160:413 must be completed.

Biochemistry Program

Students planning to pursue the Biochemistry Program (non-ACS certification) must include in their program 50:160:115-116, 125-126, 326, 335-336, 339-340, 343, 345-346, 347-348, and 435; 50:115:403, 404, and 407-408; 50:120:101,102, 305; 50:640:121,122; 50:750:203-204 and 205-206; and one of the following four courses: 50:120:307-308, 480; 50:760:301-302; 50:680:311-312. A grade of C or better must be earned in at least ten of the 3- or 4-credit chemistry and biochemistry courses and/or biology electives. For students contemplating graduate study, it is recommended that 50:960:283 and 284 be included in the program.

Chemistry-Business Program

Students planning to pursue the Chemistry-Business Program must include in their programs: 50:160:115-116, 125-126, 325-326, 335-336, 339-340, 343, 345, and three 400-level chemistry or biochemistry electives; 50:750:203-204, 205-206; 50:640:121,122; 50:960:283; 50:220:105, 106; 52:010:101 and 202; 52:390:301; 52:620:303; 52:630:301; and one 300- or 400-level business elective.

Minor Requirements

A student desiring a minor in chemistry must complete 50:160:115-116, 325 or 326, 335-336, 339-340, 343, 345, 347, and one course chosen from among 50:115:403, 50:160:413

through 448. Students minoring in chemistry should be aware that the prerequisites for Physical Chemistry 50:160:345 include General Physics 50:750:203-204, 205-206, and 50:640:121 and 122.

Teacher Certification in Chemistry

Students seeking teacher certification in chemistry must follow the state requirements and complete the requirements for the minor in the chemistry department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult both their department adviser and the chairperson of the education department.

Courses (Biochemistry 115)

50:115:301. Introduction to Biochemistry (3)
Prerequisite: 50:160:336 or permission of instructor.
A one-term overview of the metabolism of carbohydrates, lipids, and proteins.

50:115:403. General Biochemistry I (3)
Prerequisite: 50:160:336.
Study of the structure and function of proteins and enzymes; chemistry of carbohydrates, lipids, and nucleic acids; metabolic pathways with emphasis on regulation.

50:115:404. General Biochemistry II (3)
Prerequisite: 50:115:403.
Study of metabolic pathways with emphasis on regulation.

50:115:407,408. General Biochemistry Laboratory I,II (1,1)
Lab. 3 hrs. Pre- or corequisite: 50:160:403.
Basic biochemical techniques such as electrophoresis, western blotting, liquid chromatography, and protein / enzyme assays. Purification and characterization of proteins using techniques learned in 407.

50:115:451,452. Peptide Synthesis I,II (BA,BA)
Prerequisite: Permission of instructor.
Laboratory course in methods of peptide synthesis and purification.

50:115:453,454. Protein Design I,II (BA,BA)
Prerequisite: 50:160:335.
Laboratory course in methods of peptide and protein design.

50:115:455,456. Introduction to Enzyme Techniques I,II (BA,BA)
Prerequisite: Permission of instructor.
Detailed development of biochemical techniques and operation of instruments used in the study of enzymes.

50:115:457,458. Enzymatic Research I,II (BA,BA)
Prerequisite: Permission of instructor.
Experimental determination of enzyme function and mechanism using biochemical techniques.

50:115:493,494. Special Topics in Biochemistry (3,3)
Prerequisite: Permission of instructor.
The subject matter varies according to the interests of the instructor and is drawn from areas of current biochemical interest.

Courses (Chemistry 160)

50:160:101. Consumer Chemistry (R) (3)*
For nonscience majors.
Introduces areas of chemistry that are encountered in everyday living. Typical topics include nuclear chemistry, power plants, nuclear waste, radiation therapy, food chemistry, additives, fats, carbohydrates, proteins, fermentation, consumer products, soaps, toothpaste, detergents, drugs, and pharmaceuticals from aspirin to vitamins.

50:160:105. Development of Modern Chemistry (R) (3)*
For nonscience majors.
A broad descriptive view of the development of modern chemistry from the classical Greek arts to the chemical sciences of the twenty-first century.

50:160:107-108. General Chemistry (R) (4,4)*
Lec. 3 hrs., rec. 1 hr., lab. 2 hrs. Primarily for students majoring in nursing and other allied health professions.
First term: introduction to the scope and method of chemistry, concepts of atomic and molecular structure, major theories of chemical change, and the development of fundamental laws governing chemical reactions. Second term: largely devoted to an introduction to organic chemistry with particular emphasis on biologically active compounds.
Breakage deposit: $25.

50:160:115-116. Chemical Principles I,II (R) (3,3)*
Pre- or corequisite for 50:160:115: 50:160:125. Prerequisites for 50:160:116: 50:160:115 and 125. Pre- or corequisites for 50:160:116: 50:160:126, and either 50:640:121 or 130. 50:160:116 is a prerequisite for all advanced chemistry courses. Primarily for students planning to major in the natural sciences or engineering.
Introduction to fundamental principles of chemistry; atomic structure; bond characteristics of gases, liquids, solids, and solutions; acids and bases; rates of chemical reactions; and chemical equilibria. Study of common elements and their compounds.

50:160:125-126. Chemical Principles Laboratory I,II (R) (1,1)*
Rec. 1 hr., lab. 2 hrs. Pre- or corequisite for 50:160:125: 50:160:115. Prerequisites for 50:160:126: 50:160:115 and 125. Pre- or corequisite for 50:160:126: 50:160:116. 50:160:126 is a prerequisite for all advanced chemistry courses.
Demonstrates fundamental chemical principles and chemical properties of matter.
Breakage deposit: $25.

50:160:201. Environmental Chemistry (3)*
Prerequisite: 50:160:116 or permission of instructor.
Natural and human-made chemical compositions and chemical changes of the hydrosphere, the lithosphere, and the atmosphere and how they lead to the preservation and enhancement of life on earth.

50:160:325. Analytical Chemistry (4)
Lec. 3 hrs., lab. 3 hrs. Prerequisite: 50:160:116.
Introduction to the principles and practice of gravimetric, volumetric, spectrometric, and electroanalytical methods of measurement and precipitation, extraction, and chromatographic methods of separation.
Breakage deposit: $25.

50:160:326. Instrumental Analysis (4)
Lec. 3 hrs., lab. 3 hrs. Prerequisites: 50:160:336, 340.
Principles and practice of qualitative analysis in the chemical sciences using modern instrumental methods, including electrochemistry; gas and high-performance liquid chromatography; and ultraviolet, infrared, nuclear magnetic resonance, and mass spectrometry.

50:160:335-336. Organic Chemistry I,II (3,3)
Lec. 3 hrs., rec. 1 hr. Prerequisites for 50:160:335: 50:160:116, 126. Pre- or corequisite for 50:160:335: 50:160:339. Prerequisites for 50:160:336: 50:160:335, 339. Pre- or corequisite for 50:160:336: 50:160:340. Both courses must be completed to receive credit.
50:160:335: Introduction, structure and properties, stereochemistry, alkyl halides, nucleophilic substitution and elimination, alkenes, alkynes, alcohols, NMR, IR, MS.
50:160:336: Ethers and epoxides, conjugated systems, MO theory, aromatic compounds, electrophilic aromatic substitution, aldehydes and ketones, amines, carboxylic acids, carboxylic acid derivatives.

* No more than 8 credits toward the chemistry major may be earned in 100- and 200-level courses.

50:160:339-340. ORGANIC CHEMISTRY LABORATORY I,II (1,1)
Lab. 3 hrs., rec. 1 hr. Prerequisites for 50:160:339: 50:160:116, 126. Pre- or corequisite for 50:160:339: 50:160:335. Prerequisites for 50:160:340: 50:160:335, 339. Pre- or corequisite for 50:160:340: 50:160:336.
50:160:339: Introduction to the techniques used in the synthesis, isolation, and identification of organic compounds; stereochemistry. 50:160:340: Multistep synthesis; isolation, identification, and synthesis of natural products; instrumentation techniques.
Breakage deposit: $25.

50:160:343. STRUCTURE AND BONDING (3)
Prerequisite: 50:160:336.
Introduction to the concepts of quantum chemistry as applied to the energetics and spectroscopy of the chemical bond; laboratory emphasizes the use of the latest graphics workstations in molecular modeling.

50:160:345-346. PHYSICAL CHEMISTRY (3,3)
Prerequisites for 50:160:345: 50:160:116, 50:750:204, 206, and 50:640:122. Pre- or corequisite for 50:160:345: 50:160:343, 347. Prerequisites for 50:160:346: 50:160:345 and 50:640:221. Pre- or corequisite for 50:160:346: 50:160:343, 348. 50:160:345 is a prerequisite for all 400-level courses in chemistry.
Thermodynamics with chemical applications, kinetics, quantum mechanics, statistical mechanics, transport, and structure.

50:160:347-348. PHYSICAL CHEMISTRY LABORATORY (1,1)
Pre- or corequisite for 50:160:347: 50:160:345. Pre- or corequisite for 50:160:348: 50:160:346.
Laboratory experiments that illustrate physical chemistry principles, including research-level equipment and simulations on state-of-the-art workstation.

50:160:396. HONORS PROGRAM IN CHEMISTRY (4)
See Departmental Honors Programs in the Degree Requirements chapter.

50:160:412. INORGANIC CHEMISTRY LABORATORY (1)
Lab. 3 hrs. Prerequisite: 50:160:413. Pre- or corequisite: 50:160:414.
Preparation and structural determination of inorganic compounds using a variety of techniques.
Breakage deposit: $25.

50:160:413. INORGANIC CHEMISTRY I (3)
Prerequisite: 50:160:345.
The fundamentals of inorganic chemistry including atomic and molecular structure bonding, modern concepts of acids and bases, solvent systems, redox, and coordination chemistry set against a background of the periodic system.

50:160:414. INORGANIC CHEMISTRY II (3)
Prerequisite: 50:160:413.
Selected topics of inorganic chemistry, such as chemistry of the transition metal complexes and main group elements (structural, bonding, electronic, and magnetic properties; kinetics, reaction mechanisms, and spectroscopy), organometallic, bioinorganic or materials chemistry.

50:160:415. RADIOISOTOPE METHODOLOGY (4)
Lec. 3 hrs., lab. 3 hrs. Prerequisite: 50:160:336 or permission of instructor. Offered in alternate years.
Introduction to the fundamental principles of radiation; its detection and measurement; and its application in chemistry, biology, and the medical sciences.

50:160:435. ADVANCED ORGANIC CHEMISTRY I (3)
Prerequisites: 50:160:336, 345; 50:640:122 or 130. Corequisite: 50:160:441.
Devoted largely to the structure and properties of organic molecules and their reactions. Reaction mechanisms emphasized.

50:160:436. ADVANCED ORGANIC CHEMISTRY II (3)
Prerequisite: 50:160:435 or permission of instructor.
Devoted largely to organic synthesis. Mechanisms stressed.

50:160:437. SOLID-STATE CHEMISTRY (3)
Prerequisite: 50:160:345 or permission of instructor.
Experimental and theoretical aspects of solids. Topics include synthetic and crystal growth methods; crystal structures; structural characterizations; phase diagrams; chemical, physical and electronic properties of solids.

50:160:438. SOLID-STATE CHEMISTRY LABORATORY (1)
Prerequisite: Permission of instructor.
Experimental methods and techniques for the preparation of solid-state materials. Use of X-ray, optical, and thermal instruments for structural analysis and property studies.

50:160:440. KINETICS (2)
Lec. 2 hrs. Prerequisite: 50:160:443.
The classification and interpretation of chemical reactions through study of their kinetic behavior.

50:160:441. ADVANCED ORGANIC CHEMISTRY LABORATORY I (2)
Lec. 1 hr., lab. 3 hrs. Corequisite: 50:160:435.
The structure of organic compounds determined using spectrophotometric analytical techniques and calculated with molecular modeling programs.
Breakage deposit: $25.

50:160:442. ADVANCED ORGANIC CHEMISTRY LABORATORY II (1)
Lab. 3 hrs. Prerequisites: 50:160:435 and permission of instructor.
Organic compounds synthesized using advanced techniques from the literature.
Breakage deposit: $25.

50:160:443. THERMODYNAMICS (3)
Prerequisite: 50:160:346.
The principles of thermodynamics and their application to the study of homogeneous and heterogeneous equilibria.

50:160:444. POLYMER CHEMISTRY (3)
Prerequisites: 50:160:345, 435, or permission of instructor.
Topics include synthesis, characterization, and thermodynamics of conventional organic and inorganic polymers as well as conducting polymers and biopolymers.

50:160:446. POLYMER CHEMISTRY LABORATORY (1)
Prerequisite: Permission of instructor.
Synthesis and characterization of polymers to illustrate principles of polymer science.

50:160:447. COMPUTATIONAL CHEMISTRY (3)
Prerequisites: 50:160:326, 336; 50&64:198:111; and 50&64:640:221; or permission of instructor.
Application of numerical and graphical techniques to data acquisition and presentation in chemistry, including molecular modeling and microprocessor control in spectroscopy.

50:160:448. QUANTUM CHEMISTRY AND PHARMACOLOGY (4)
Lec. 3 hrs., lab. 3 hrs. Prerequisites: 50:160:346 and permission of instructor.
Topics include molecular orbital theory and electron correlation methods that are applied to the study of states and configuration in spectroscopy, and reaction mechanisms. Calculation of the properties of polymers and molecules of organic and pharmacological interest. The laboratory introduces computer programs in parallel with the chemical theory.

50:160:451,452. ELECTROACTIVE MATERIALS I,II (BA,BA)
Prerequisite: Permission of instructor.
Preparation (both chemical and electrochemical) of materials on electrode surfaces; structural and spectroscopic analysis of the materials.

50:160:453,454. SYNTHESIS AND CHARACTERIZATION OF CONDUCTING POLYMERS I,II (BA,BA)
Prerequisite: Permission of instructor.
Preparation and analysis of conducting polymers. Characterization techniques such as 4-probe conductivity and spectroscopic analysis emphasized.

50:160:455,456. Quantum Computational Laboratory I,II (BA,BA)
Prerequisite: Permission of instructor.
Introduction to advanced quantum mechanics. Numerical methods in quantum chemistry. Original research.

50:160:457,458. Density-Functional Thermochemistry I,II (BA,BA)
Prerequisite: Permission of instructor.
Introduction to density-functional theory; calculation techniques; development of functionals. Original research.

50:160:459,460. Molecular Modeling I,II (BA,BA)
Prerequisite: Permission of instructor.
Methods for the calculation and display of chemical and physical properties explored through the use of supercomputers and high-end graphics workstations.

50:160:461,462. Reaction Mechanisms I,II (BA,BA)
Prerequisite: Permission of instructor.
Theoretical calculations using molecular orbital, electron correlation, and density functional theories performed and studied in relation to experimental quantities.

50:160:463,464. Research in Bioinorganic Chemistry I,II (BA,BA)
Prerequisite: Permission of instructor.
Identification and quantification of biologically active forms of metals by spectrometry and chromatography from both nutritional and toxicological perspectives.

50:160:465,466. Research in Radiochemistry and Radiation Chemistry I,II (BA,BA)
Prerequisite: Permission of instructor.
Characterization of recoil reactions associated with ^{50}Cr nuclei in hexavalent chromium compounds and / or ^{55}Mn nuclei in heptavalent manganese compounds undergoing (n,g) and / or (g,n) processes.

50:160:467,468. Crystalline Structures and Synthesis I,II (BA,BA)
Prerequisite: Permission of instructor.
Introduction to a variety of synthetic routes for the crystal growth of novel inorganic materials, such as carbides, pnictides, oxides, and chalcogenides.

50:160:469,470. Preparation and Characterization of Inorganic Materials I,II (BA,BA)
Prerequisite: Permission of instructor.
Application of low and high temperature techniques for preparation, purification, and identification of inorganic compounds with molecular, chain, layered, and extended three-dimensional structures. Investigation of their structural, electronic, optical, and thermal properties.

50:160:471,472. Research in Analytical Chemistry I,II (BA,BA)
Prerequisite: Permission of instructor.
Topics include applications of atomic spectrometry and voltammetric techniques to the speciation of trace elements in environmental and biological systems; the development of isolation procedures for microcomponents of environmental and biological systems; the development of biomarkers for retrospective assessments of dose and the development of biosensers for pollutants and contaminants.

50:160:491,492. Chemistry Seminar (1,1)
Sem. 1 hr. Prerequisite: Permission of instructor.
Members of the seminar prepare and present papers on topics of current interest in chemistry.

50:160:493,494. Special Topics in Chemistry (BA,BA)
Prerequisite: Permission of instructor.
The subject matter varies according to the interests of the instructor and is drawn from areas of current chemical interest.

50:160:495,496. Research in Chemistry (BA,BA)
Prerequisites: 50:160:325, 326 and senior status or permission of instructor. Maximum of 4 credits may be earned toward the chemistry major in 495 and 496 combined.
For the student interested in cooperating in research with a member of the faculty. The student should work out a research project with the instructor before registering for the course.

50:160:497,498. Honors Program in Chemistry (4,4)
See Departmental Honors Programs in the Degree Requirements chapter.

CITIZENSHIP AND SERVICE EDUCATION–CAMDEN (CASE)

Faculty Director: Jon Van Til
Administrative Director: Shelley J. Marino

CASE at Camden is an academic program that advances the missions of the university: service, research, and teaching. Generally, CASE courses have three components:

- academic work,
- experiential work—that is done in the form of community service as it applies to the academic work, and
- reflection—that is done in focus groups, journaling, and experiential essay writing.

Students benefit from being enrolled in CASE-based courses by being able to link academic work with actual experience, giving a clear advantage in today's competitive job market. Also, students gain firsthand knowledge of the problems that plague society through their experiential work in the CASE course. As a result, students begin to consider the solutions for many pressing social problems.

The Camden CASE program serves as a liaison between the Rutgers–Camden campus and various social-service agencies, grass-roots organizations, and public and private schools in Camden and the South Jersey region. CASE courses link students with agencies that apply to their academic work and interests. The Camden CASE program also assists faculty members in the development of service learning courses. It is a goal of the Camden CASE program to develop and implement a CASE-based course in every discipline, within the core curriculum, and in every school on the Rutgers–Camden campus.

A list of all CASE-based courses appears in the term sign-up guide. If you have any questions, call 856 / 225-6610 or stop by 323 Cooper Street, third floor, Camden NJ 08102.

A partial list of CASE core courses include:

50:202:404	Service / Internship in Criminal Justice (offered by the sociology department)
50:350:246	Literature of Childhood (offered by the English department)
50:920:487	Individual Study in Sociology (offered by the sociology department)
50:975:220	Civic Education and Community Service (offered by the urban studies department)
50:975:221	Literacy Practicum (offered by the urban studies department)
50:975:451	Community Leadership Training Seminar (offered by the urban studies department)

COMPUTER SCIENCE 198

Web Site: http://cs.camden.rutgers.edu/

Major requirements in computer science can be completed either through daytime or evening attendance.

Department of Computer Science

Chairperson: Michael A. Palis

Professor:

Michael A. Palis, B.S.E.E., Philippines; Ph.D., Minnesota

Associate Professors:

Jean-Camille Birget, B.S., Paris; M.S., Ph.D., Berkeley
Sunil M. Shende, B.Tech., Indian Institute of Technology; Ph.D., Pennsylvania

Assistant Professors:

Bhaskar Dasgupta, B.E., Jadavpur; M.S., Pennsylvania State; Ph.D., Minnesota
Suneeta Ramaswami, B.A., Wellesley College; Ph.D., Pennsylvania

The Department of Computer Science offers a comprehensive program that prepares students for professional careers and/or graduate studies in computer science. The curriculum has been developed in accordance with the recommendations of the Computer Science Accreditation Commission (CSAC) of the Computer Science Accreditation Board (CSAB) and the ACM/IEEE-CS Joint Curriculum Task Force.

Students majoring in computer science may choose between two degree programs: the Bachelor of Science (B.S.) and the Bachelor of Arts (B.A.). The two programs have identical computer science requirements and differ only in the natural science and mathematics requirements. The B.S. program requires a minimum of 33 credits in science and mathematics and is intended for students planning to pursue careers and/or graduate studies in science and engineering. The B.A. program has fewer science and mathematics requirements (24 credits), thus allowing students greater opportunity to develop breadth of knowledge in other disciplines, such as the arts, humanities, social sciences, and business.

Major Requirements: CCAS and University College–Camden

Students wishing to pursue either the B.S. or B.A. program must satisfy the following requirements before formally being admitted into the program:

1. A grade of 2.5 (C+) or better in 50:198:111 and 50:198:113. For transfer students, a grade of 2.5 or better in the first two computer science courses (each at least 3 credits) taken at Rutgers, not including 50:198:110 and 50:198:151.
2. Completion or transfer credits for either 50:640:121 or 50:640:130.

To continue in the program and graduate with a degree in computer science, a student must achieve a grade of 2.0 (C) or better in all computer science courses required for the major.

Bachelor of Science (B.S.) in Computer Science

Students pursuing the B.S. program in computer science must complete the requirements listed below.

1. General Curricular Requirements
   All students must satisfy the general curricular requirements listed in the Degree Requirements chapter of this catalog. Some of the general curricular requirements are automatically satisfied by fulfilling the natural science and mathematics requirements of the B.S. program. The following guidelines should be used:
   a. Six credits of the B.S. natural science requirements may be used to satisfy the general curricular requirement of 6 credits from the offerings of the natural science disciplines.
   b. Six credits of the B.S. mathematics requirements may be used to satisfy the general curricular requirement of 3 credits in mathematics and 3 credits in mathematics, computer science, or statistics.
   c. At most, 6 additional credits of the B.S. natural science or mathematics requirements, excluding the courses used to satisfy a and b above, may be counted toward fulfillment of the general curricular requirement of 9 credits in free electives outside the major department. Students must take at least 3 more credits outside computer science to satisfy the free electives general curricular requirement.
2. Natural Science Requirements
   50:750:131 Elements of Physics I (3)
   50:750:132 Elements of Physics II (3)
   50:750:133 Elements of Physics Laboratory I (1)
   50:750:134 Elements of Physics Laboratory II (1)
   Minimum of 4 additional credits of natural science electives in the biological sciences, chemistry, or physics; courses designed for nonscience majors may not be used to satisfy this requirement.
3. Mathematics Requirements
   50:640:121,122,221 Unified Calculus I,II,III (4,4,4)
   50:640:237 Discrete Mathematics (3)
   50:960:336 Applied Statistics (3) or 50:960:283,284 Introduction to Statistics I,II (3,3)
   Minimum of 3 additional credits in mathematics at the 200 level or higher.
4. Computer Science Core
   50:198:111 Introduction to Computer Science (3)
   50:198:112 Software Laboratory I (1)
   50:198:113 Programming with Data Structures (3)
   50:198:114 Software Laboratory II (1)
   50:198:221 Programming Language Concepts (3)
   50:198:231 Computer Organization and Assembly Language Programming (3)
   50:198:271 Design and Analysis of Algorithms (3)
   50:198:323 Software Methodology and Engineering (3)
   50:198:333 or 50:750:308 Computer Hardware and Interfacing (3)
   50:198:334 or 50:750:312 Computer Hardware and Interfacing Laboratory (1)
   50:198:341 Principles of Operating Systems (3)
   50:198:376 Introduction to Theory of Computation (3)
   50:198:493 Senior Design Project (3)
5. Computer Science Electives
   At least 15 credits of computer science electives at the 300 or 400 level. At most, 3 credits of 50:198:494 Independent Study and, at most, 3 credits of 50:198:497 Computer Science Internship may be counted toward fulfillment of this requirement.

Bachelor of Arts (B.A.) in Computer Science

Students pursuing the B.A. program in computer science must complete the requirements listed below.

1. General Curricular Requirements
   All students must satisfy the general curricular requirements listed in the Degree Requirements chapter of this catalog. Some of the general curricular requirements are

automatically satisfied by fulfilling the natural science and mathematics requirements of the B.A. program. The following guidelines should be used:

a. Six credits of the B.A. natural science requirements may be used to satisfy the general curricular requirement of 6 credits from the offerings of the natural science disciplines.
b. Six credits of the B.A. mathematics requirements may be used to satisfy the general curricular requirement of 3 credits in mathematics and 3 credits in mathematics, computer science, or statistics.
c. Students must take at least 9 additional credits in courses outside computer science to satisfy the free electives general curricular requirement. These courses should be different from the courses used to satisfy the natural science or mathematics requirements given below.

2. Natural Science Requirements
   Minimum of 9 credits of natural science electives in the biological sciences, chemistry, or physics (including astronomy and geology).
3. Mathematics Requirements
   50:640:129 Linear Mathematics for Business and Economics (3)
   50:640:130 Calculus for Business, Economics, and Life Sciences (3)
   50:640:237 Discrete Mathematics (3)
   50:960:336 Applied Statistics (3) or 50:960:283,284 Introduction to Statistics I,II (3,3)
   Minimum of 3 additional credits in mathematics at the 200 level or higher.
4. Computer Science Core
   Identical to the B.S. in computer science core requirements.
5. Computer Science Electives
   Identical to the B.S. in computer science electives requirements.

Technical Tracks

In lieu of upper-division technical electives, students may pursue one of two technical tracks: the Scientific Computing Track or the Information Systems Track.

Scientific Computing Track

The Scientific Computing Track teaches students the mathematical foundations, methods, and tools of scientific computing and how they can be applied toward the solution of scientific and engineering problems. Students gain experience in the use of high-performance computing equipment and state-of-the-art scientific software and visualization tools of the Science Vision Laboratories. This track is open only to students pursuing the B.S. program and may be taken only through daytime attendance.

1. Required track courses:
   50:198:316 Parallel Programming (3)
   50:198:381 Introduction to Numerical Methods (3)
   50:198:458 Scientific Visualization (3)
   50:198:481 Advanced Numerical Methods (3)
   One 300- or 400-level department-approved course in computer science, mathematics, or natural science
2. Required math courses:
   50:640:250 Linear Algebra (3)
   50:640:314 Elementary Differential Equations (3)

Information Systems Track

The Information Systems Track is intended for students who wish to pursue careers in information systems practice in industry or government. It provides students with the requisite knowledge and skills to carry out such responsibilities as development of systems architecture, systems standards, database design and implementation, network design, integration, testing, and operational management of information systems. This track is open to students pursuing either the B.S. or the B.A. program in computer science.

1. Required track courses:
   50:198:313 Software Design for Commercial Applications (3)
   50:198:346 Computer Networks (3)
   50:198:351 Database Systems (3)
   50:198:426 Information Systems Analysis and Design (3)
   One 300- or 400-level computer science elective
2. Business electives:
   At least two courses from the following list:
   52:010:101 Introduction to Financial Accounting (3)
   52:010:202 Management Accounting (3)
   50:220:105 Microeconomic Principles (3)
   50:220:106 Macroeconomic Principles (3)
   52:390:301 Principles of Finance (3)
   52:623:334 Management Information Systems (3)

Minor Requirements: CCAS and University College–Camden

Students desiring a minor in computer science must complete the following courses with a grade of C or better:

50:198:111 Introduction to Computer Science (3)
50:198:112 Software Laboratory I (1)
50:198:113 Programming with Data Structures (3)
50:198:114 Software Laboratory II (1)
50:198:221 Programming Language Concepts (3)
50:198:231 Computer Organization and Assembly Language Programming (3)
At least two additional computer science courses numbered 200 or above.

Departmental Honors Program

In lieu of 50:198:493 Senior Design Project, a student may complete an undergraduate thesis embodying original research work through the Honors Program. Eligibility in the program is judged by the student's academic performance and the availability of an appropriate supervising professor. Approval must be obtained from the department chair and the faculty member who is to serve as the student's adviser. Students admitted to the program must complete a minimum of 6 credits of the two-term sequence 50:198:495-496 Honors Program in Computer Science.
A grade is not given until completion of the sequence and department approval of an undergraduate thesis embodying the project. Students who successfully complete the Honors Program are given the distinction of graduating with Honors in Computer Science.

Courses

50:198:110. Introduction to Computing (R) (3)
Prerequisite: Satisfy mathematics requirement for admission to the colleges.
Introduction to computers and information technology, with an emphasis on personal computers and their applications. Understanding of and hands-on experience with application software including word processors, spreadsheets, database systems, electronic mail, and web browsers. Introductory problem solving and computer programming.

50:198:111. Introduction to Computer Science (R) (3)
Corequisites: 50:640:121 or 129 or 130, and 50:198:112.
The first course for computer science majors. Basic concepts of computing, fundamental problem-solving techniques, and principles of structured programming. Programming in a modern high-level language (such as C / C++). Must be taken concurrently with 50:198:112 Software Laboratory I.

50:198:112. Software Laboratory I (R) (1)
Corequisite: 50:198:111.
Formal laboratory that provides practical programming experience based on the lecture material of 50:198:111. Introduction to the Unix system, including the file system; programming tools such as editors, compilers, and debuggers; libraries; and other utilities.

50:198:113. Programming with Data Structures (R) (3)
Prerequisites: 50:198:111 and 50:640:121 or 129 or 130. Corequisite: 50:198:114.
Abstract data types and elementary data structures, including stacks, queues, linked lists, tree-based structures, and hash tables. Algorithmic analysis, recursion, searching and sorting, and basic algorithms. Principles of object-oriented programming and design illustrated through a modern object-oriented language (such as C++ or Java).

50:198:114. Software Laboratory II (R) (1)
Prerequisite: 50:198:112. Corequisite: 50:198:113.
Formal laboratory that provides practical programming experience based on the lecture material of 50:198:113. Introduction to Unix systems programming, Unix systems calls, shell scripts, and graphical user interface (GUI) libraries and tools.

50:198:151. Introduction to Programming Methods Using FORTRAN (R) (3)
Corequisite: 50:640:121 or 130.
Intended for science and engineering majors. Basic problem-solving and programming techniques, basic data structures, and fundamental numerical algorithms. Programming in FORTRAN.

50:198:221. Programming Language Concepts (3)
Prerequisite: 50:198:113.
Design issues relevant to the implementation of programming languages: sequence control, data control, type checking, run-time storage management, language translation, and semantics. Comparison of major programming paradigms: procedural, functional, logic, and object-oriented. Language features that support parallel and distributed computing. Introduction to the relational data model and relational database query languages.

50:198:231. Computer Organization and Assembly Language Programming (3)
(Formerly 50:198:211 Introduction to Computer Architecture and Assembly Language Programming)
Prerequisite: 50:198:111.
Machine representation of data and instructions, instruction set architecture, memory organization, input / output, and interrupt processing. Assembly language and machine language, relation to high-level language, and operating system interface. Assembly language programming, including subroutine construction, macros, debugging, linking, and loading.

50:198:271. Design and Analysis of Algorithms (3)
Prerequisites: 50:198:113 and 50:640:237.
Algorithm design techniques: divide-and-conquer, greedy method, dynamic programming, backtracking, and branch-and-bound. Advanced data structures, graph algorithms, algebraic algorithms. Complexity analysis, complexity classes, and NP-completeness. Introduction to approximation algorithms and parallel algorithms.

50:198:313. Software Design for Commercial Applications (3)
Prerequisite: 50:198:113.
Design and implementation of software for commercial applications. Organization and management of data and files, including sequential and indexed files. Solution of management information processing problems, documentation, and report generation. COBOL programming language used to illustrate these concepts and to implement practical software applications.

50:198:316. Parallel Programming (3)
Prerequisites: 50:198:113 or advanced programming experience and permission
of instructor.
Fundamental issues in the design and development of parallel programs for various types of parallel computers. Various programming models according to both machine type and application area. Cost models, debugging, and performance evaluation of parallel programs with actual application examples. Programming techniques and optimization. Programming exercises on a contemporary parallel machine.

50:198:323. Software Methodology and Engineering (3)
Prerequisite: 50:198:221.
Principles and techniques for the design and construction of reliable, maintainable, and useful software systems. Software life cycle, requirements specifications, and verification and validation issues. Implementation strategies (e.g., top-down, bottom-up, teams), support for reuse, performance improvement. A treatment of human factors and user interfaces included.

50:198:333. Computer Hardware and Interfacing (3)
Prerequisites: 50:198:231 and 50:640:237. Corequisite: 50:198:334. Credit not given for both this course and 50:750:308.
Introduction to digital logic, combinational circuits, sequential circuits. Introduction to microprocessor architecture and organization, operation and programming, interfacing, and application of microprocessors.

50:198:334. Computer Hardware and Interfacing Laboratory (1)
Corequisite: 50:198:333. Credit not given for both this course and 50:750:312.
Provides hands-on experience in digital design using PLA / PLD devices, EEPROM, and MSI / LSI circuits, and interfacing of microprocessors to memory and peripherals.

50:198:341. Principles of Operating Systems (3)
Prerequisites: 50:198:113 and 231.
Fundamental concepts of operating systems. Process management, memory management, device management, file systems, resource allocation, security and protection. Introduction to network and distributed operating systems.

50:198:346. Computer Networks (3)
Prerequisite: 50:198:113.
Introduction to computer communication networks, including physical and architectural components, communication protocols, switching, network routing, congestion control, and flow control. End-to-end transport services, network security and privacy. Networking software and applications. Network installation, testing, and maintenance.

50:198:347. COMPUTER SYSTEMS ADMINISTRATION (3)
Prerequisites: 50:198:113 and 343.
Basic administration of networked computer systems (such as Unix and / or Windows NT). Installing and configuring the operating system, upgrading software and hardware, installing patches, system backups, security issues, account creation and deletion, system accounting and log files, job scheduling, performance monitoring, tcp / ip and networking, client / server file sharing and printing, file layout and organization, disk and tape administration, and a look at several administrative tools.

50:198:351. DATABASE SYSTEMS (3)
Prerequisites: 50:198:113 and 50:640:237.
Relational database theory and practice, including database design. Database concepts, relational algebra, data integrity, query languages, views. Introduction to object-oriented databases. Application project with a practical database management system.

50:198:356. COMPUTER GRAPHICS (3)
Prerequisite: 50:198:113.
Characteristics of graphics display devices and systems; representation, manipulation, and display of two- and three-dimensional objects; curve and surface modeling; two- and three-dimensional transformations; hidden lines and surfaces; shading and coloring; interactive graphics and user interfaces; animation techniques.

50:198:361. ARTIFICIAL INTELLIGENCE (3)
Prerequisites: 50:198:113 and 50:640:237.
Techniques and applications of artificial intelligence: search, rule-based reasoning, statistical reasoning, game playing, machine learning, knowledge representation. The use of heuristics to obtain satisfactory solutions to intractable problems.

50:198:372. PARALLEL ALGORITHMS (3)
Prerequisite: 50:198:271.
Introduction to parallel algorithms. Sorting, searching, arithmetic, and graph algorithms on various parallel computation models, including linear arrays, meshes, and hypercubes. Case studies of real parallel machines. Systolic and semisystolic models. Scan / multiscan models. Routing algorithms for interconnection networks. Area-time trade-off and connection to VLSI.

50:198:376. INTRODUCTION TO THE THEORY OF COMPUTATION (3)
Prerequisite: 50:640:237.
Introduction to the theory of computability, including important results from the study of automata and formal languages. Automata and their relationship to regular, context-free, and context-sensitive languages. General theories of computability, including Turing machines, recursive functions, and lambda calculus. Notions of decidability and undecidability, complexity classes, and complexity analysis.

50:198:381. INTRODUCTION TO NUMERICAL METHODS (3)
Prerequisites: 50:198:111 and 50:640:221.
Methods of finding roots, interpolation, curve fitting, integration, differentiation, and minimization; estimation and control of various computational errors.

50:198:421. COMPILER CONSTRUCTION (3)
Prerequisites: 50:198:221, 231, and 376.
Introduction to compiler design and implementation, including lexical analysis, formal syntax specification, parsing techniques, syntax-directed translation, semantic analysis, execution environment, storage management, code generation, and optimization techniques.

50:198:426. INFORMATION SYSTEMS ANALYSIS AND DESIGN (3)
Prerequisite: 50:198:351.
Overview of information systems; analysis of existing systems; requirements determination; design of information systems including interface, inputs, outputs, database. Group analysis and design project. Alternative development methodologies. Modern tools for analysis and design.

50:198:431. HIGH-PERFORMANCE COMPUTER ARCHITECTURES (3)
Prerequisites: 50:198:231 and 333.
Architecture of pipelined and superscalar processors, vector supercomputers, multiprocessors, parallel computers, multithreaded processors, and dataflow processors. System interconnect architectures, memory hierarchy design, and input / output subsystems. System design issues such as shared memory and message-passing communication models, cache coherence and synchronization mechanisms, latency-hiding techniques, virtual memory management, and task scheduling.

50:198:441. DISTRIBUTED SYSTEMS (3)
Prerequisite: 50:198:341.
Models of distributed systems, distributed algorithms and protocols, operating systems support, programming paradigms. Case studies of experimental and commercial systems.

50:198:458. SCIENTIFIC VISUALIZATION (3)
Prerequisites: 50:198:113, 381, and 50:640:250.
Study of visualization techniques useful for the analysis and interpretation of scientific and engineering data. Topics include two- and three-dimensional data types; visual representation schemes for scalar, vector, and tensor data; isosurface and volume visualization methods; animation; and interactive manipulation of data.

50:198:464. ARTIFICIAL NEURAL NETWORKS (3)
Prerequisites: 50:198:271 and 50:640:221.
Introduction to artificial neural networks. Perceptrons and perceptron learning algorithm. Hopfield models and associate memory. Feedforward neural nets and backpropagation algorithm. Self-organizing networks, Kohonen networks, competitive learning. Applications of neural nets to robotics, vision, and other areas.

50:198:473. INTRODUCTION TO COMPUTATIONAL GEOMETRY (3)
Prerequisite: 50:198:271.
Algorithms and data structures for geometric problems that arise in various applications, such as computer graphics, CAD / CAM, robotics, and geographical information systems (GIS). Topics include point location, range searching, intersection, decomposition of polygons, convex hulls, and Voronoi diagrams.

50:198:474. INTRODUCTION TO COMPUTATIONAL MOLECULAR BIOLOGY (3)
Prerequisite: 50:198:271.
Basic biological notions. Recombinant DNA technology. String matching algorithms. Phylogenetic trees. Multiples sequence alignment problems. Mapping problems.

50:198:481. ADVANCED NUMERICAL METHODS (3)
Prerequisites: 50:198:381, 50:640:250, and 314.
Numerical techniques for solving linear algebraic systems, eigenvalue problems, least squares, quadrature. Numerical solution of initial and boundary value problems for ordinary and partial differential equations.

50:198:483. LINEAR PROGRAMMING (3)
Prerequisites: 50:640:221 and 250.
Linear programming using the simplex method and dual linear programming. Applications of linear programming to network flows and other problems. Convex sets and elements of convex programming. Combinatorial optimization. Integer programming.

50:198:485. COMPUTATIONAL MATHEMATICS (3)
Prerequisite: 50:640:250. Credit not given for both this course and 50:640:498.
Computational aspects of number theory, with a brief introduction to underlying theories. Topics include prime numbers, pseudo primes, and their applications especially in cryptography; prime factorization of composite numbers via several different methods. Computer simulation emphasized.

50:198:487. VISUALIZING MATHEMATICS BY COMPUTER (3)
Prerequisite: 50:640:221. Credit not given for both this course and 50:640:497.
A comprehensive introduction to symbolic computational packages and scientific visualization through examples from calculus and geometry. Covers 2-D, 3-D, and animated computer graphics using Maple, Mathematica, and Geomview.

50:198:491,492. SPECIAL TOPICS IN COMPUTER SCIENCE (3,3)
Prerequisite: As announced or permission of instructor.
In-depth study of areas not covered in regular curriculum. Topics vary from term to term.

50:198:493. SENIOR DESIGN PROJECT (3)
Prerequisite: Senior standing or permission of instructor.
Design, implementation, and demonstration of a significant software and / or hardware project. Project proposals must be submitted and approved by instructor. Part of the lecture time used to discuss such issues as the historical and social context of computing, responsibilities of the computing professional, risks and liabilities, and intellectual property.

50:198:494. INDEPENDENT STUDY (BA)
Prerequisite: Permission of instructor.
Individual study under the supervision of a computer science faculty member; intended to provide an opportunity to investigate areas not covered in regular courses.

50:198:495-496. HONORS PROGRAM IN COMPUTER SCIENCE (BA,BA)
Prerequisite: Approval by department.
A program of readings and guided research in a topic proposed by the student, culminating in an honors thesis presented to the departmental faculty for approval.

50:198:497. COMPUTER SCIENCE INTERNSHIP (BA)
Prerequisite: Approval by department.
The practical application of computer science knowledge and skills through an approved internship in a sponsoring organization. Arrangements for the internship must be agreed upon by the sponsoring organization and approved by the department before the beginning of the term. Students should consult the department for detailed instructions before registering for this course.

CRIMINAL JUSTICE 202

See Sociology.

DANCE 203

See Fine Arts.

ECOMMERCE AND INFORMATION TECHNOLOGY 623

See the Courses chapter in the School of Business–Camden section.

ECONOMICS 220

Web Site: http: / / www.camden.rutgers.edu / dept-pages / economics / index.html

Major requirements in economics can be completed only through daytime attendance.

Department of Economics

Chairperson: John D. Worrall

Professors:

Les Seplaki, B.Comm., Sir George Williams (Canada); M.A., McGill; Ph.D., California (Riverside)
John D. Worrall, B.A., M.A., Ph.D., Rutgers

Associate Professor:

Tetsuji Yamada, B.A., Toyo; M.I.A., Columbia; M.Phil., Ph.D., CUNY

Assistant Professors:

Baoline Chen, B.S., Beijing University of International Business and Economics (China); M.A., Indiana State; Ph.D., Indiana
Jinpeng Ma, B.S., Huazhong Agricultural (China); M.S., Beijing University of Agricultural Engineering (China); M.A., Ph.D., SUNY (Stony Brook)

The programs offered by the Department of Economics are designed to (1) provide a general understanding of the functioning of the economic system and the role of institutions, groups, and regions within that system; and (2) prepare the student for employment in industry, the professions, and government, or to pursue graduate work toward such advanced degrees as the M.A., M.B.A., or Ph.D. in economics, business, or related fields.

Students are strongly advised to monitor their curriculum progress every year, so no deficiencies surface during their senior year that cannot be remedied consistent with university regulations.

Major Requirements

First Year

50:220:105 Microeconomic Principles (3)
50:220:106 Macroeconomic Principles (3)
50:640:130 Calculus for Business, Economics, and Life Sciences (3)

Sophomore Year

50:220:323 Intermediate Economic Theory: Microeconomics (3)
50:220:324 Intermediate Economic Theory: Macroeconomics (3)
50:960:283 Introduction to Statistics I (3)

Junior and Senior Years

50:220:322 Econometrics (3)
Seven economics electives

Minor Requirements

50:220:105 Microeconomic Principles (3)
50:220:106 Macroeconomic Principles (3)
50:220:323 Intermediate Economic Theory: Microeconomics (3) or 50:220:308 Introductory Managerial Economics (3)
50:220:324 Intermediate Economic Theory: Macroeconomics (3) or 50:220:202 Money and Banking (3)
Two economics electives

Departmental Honors Program

Students seeking the distinction of graduating with "Honors in Economics" and the experience of intense investigation of a particular topic in economics may do so in the honors program. Eligibility for such a project is judged by the student's qualifications and availability of an appropriate supervising professor. The supervisor works individually with the student over a two- or three-term sequence, 50:220:396-495-496, during the student's last three terms before graduation. Total credits earned are determined by the department according to the nature of the project; a grade is not given until completion of the three-term sequence and department approval of an honors thesis embodying the project. A GPA of 3.5 is required for participation in the Honors Program.

Requirements and Restrictions for Independent Study Projects

Enrollment in 50:220:491 Independent Study Projects in Economics requires prior approval by the department and the participating faculty member. All independent study projects require at least the same rigors of training, instruction, research, and grading as do other upper-division economics courses. To enroll in 50:220:491, students must have completed nearly all of the course requirements for the major in economics and have achieved a grade-point average in economics of at least 3.0. A student is limited to enrollment in only one independent study project within the economics department each term and a maximum of two during the degree program.

Graduate School Preparation

For any graduate work in economics, 50:220:391 Mathematical Economics is valuable preparation, as is 50:640:250 Linear Algebra. Strongly recommended courses are 50:640:121, 122, and 221.

Courses

50:220:105. Microeconomic Principles (R) (3)
Economic systems; supply, demand, and role of the market; consumer behavior and utility; firm behavior, cost, and profit; competitive and monopolistic markets for products and inputs; government regulation of markets.

50:220:106. Macroeconomic Principles (R) (3)
National income and how it is determined; consumption, investment, and government spending; the monetary system; control of inflation and unemployment; international exchange; alternative economic systems.

50:220:202. Money and Banking (3)
(Formerly 50:220:302)
Prerequisite: 50:220:105 or 106.
Theories of money and their applications; structure and historical development of U.S. monetary and banking institutions; current problems of monetary management.

50:220:303. Consumer Economics (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Analysis of problems facing individuals and households as savers, investors, and spenders. Analysis of the legal and economic framework of consumer protection legislation. "Consumerism" as an economic force.

50:220:308. Introductory Managerial Economics (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Application of economic analysis to practical managerial decision making. Course demonstrates the use of contemporary economic tools and techniques in actual managerial problems relevant to market demand and supply, revenue, costs, profits, optimal pricing, capital budgeting, and product line analysis.

50:220:310. American Economic History (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Analysis of such selected factors as population, government, capital accumulation, and technology contributing to development of economic life and institutions in the United States.

50:220:313. Economics of Labor (3)
Prerequisite: 50:220:105.
Study of wages and employment; the history of labor movements; and effects of unionism and minimum wage laws on prices, wages, and income. Marginal productivity theory applied to wage-employment analysis.

50:220:316. Economics of Health and Health Care (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Designed to apply economic analysis to the health-care sector and health status, such as demand for health and for medical care, health insurance experiment, demand for health insurance, market for physicians' and nurses' services, market for hospital services, pharmaceutical industry, delivery of health care, methods of payment, and government regulation.

50:220:320. Inflation, Unemployment, and Public Policy (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Causes and consequences of inflation, unemployment, and the inflation-unemployment trade-off. Assessment of stabilization policies: wage-price controls, wage indexation, Keynesian measures, and other alternatives.

50:220:322. Econometrics (3)
Prerequisites: 50:220:105; 50:640:129 or 130; 50:960:283.
An introduction to model building and testing, measurement problems, and the application of statistical methods in economics, business, and related social sciences.

50:220:323. Intermediate Economic Theory: Microeconomics (3)
Prerequisites: 50:220:105, 106.
Roles of supply and demand under varying degrees of market competition in determining price and output of goods, factor inputs, and their prices; emphasis on the social implication of these market conditions.

50:220:324. Intermediate Economic Theory: Macroeconomics (3)
Prerequisites: 50:220:105, 106.
Role of consumption, savings, investment, government monetary and fiscal policies, and international economic relations in affecting national income, employment, the price level, and economic growth.

50:220:325. Financial Institutions (3)
Prerequisite: 50:220:105 or 106.
Role of banks, insurance companies, investment companies, finance companies, pension funds, credit unions, and such institutions in financial markets, and their impact on how the economic and financial systems function. Lending and borrowing activities, investment portfolio policy, and regulatory environment of each type of financial intermediary examined.

50:220:329. Economics of International Finance (3)
Prerequisite: 50:220:105 or 106.
Examines the specific factors of demand and supply that determine exchange rates under the current flexible exchange rate system. Spot and forward markets, purchasing power parity, and interest rate parity considered. Discusses fixed versus flexible exchange rates. Analysis of recent changes in the dollar and other key currencies.

50:220:330. Urban Economics (3)
(Formerly 50:220:354)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Analysis of the economic forces leading to the existence, growth, and decline of cities and of the factors affecting land use within a city. The provision of local public services, local taxes, and the size of local governments. The economic analysis of urban problems: housing, poverty, transportation, and land use.

50:220:331. International Economics (3)
(Formerly 50:220:345)
Prerequisite: 50:220:105 or 106 or permission of instructor.
A study of the fundamentals of international economics. Analyzes comparative advantage of trade, free and restriction on trade, tariff and quota, international resource flow, foreign exchange markets, foreign exchange rates and risks, balance of payments, international operation of the U.S. economy, and government policies affecting the development and structure of the world economy.

50:220:332. Environmental Economics (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Effects of man on quality of air, water, and ground resources; application of microeconomic analysis to problems created by deterioration of these resources.

50:220:333. Comparative Economic Systems (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Comparison of decentralized capitalist market systems, socialist market-oriented systems, and "command" or centralized models such as in the former Soviet Union. Variation in these systems such as in the United States, United Kingdom, Sweden, and Japan for capitalist systems; Hungary, Poland, Yugoslavia, and China for socialist systems; and socialistic countries such as India.

50:220:339. Economic Development (3)
(Formerly:50:220:314)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Economic and social problems of developing countries: poverty, low savings, inadequate investments, unemployment, inflation, and the transfer of technology, and such social problems as education, health, and administration. Examines development theories models and notes interdependence between developing economies and developed countries, particularly with respect to trade, capital and labor movements, and the transfer of technology.

50:220:361. Game Theory (3)
Prerequisite: 50:220:105.
Study interactive decision making when players have conflicts of interest. Course includes noncooperative games, cooperative games, bargaining theory, auctions, market games, and applications to business and economics.

50:220:362. Economics of Transition (3)
Prerequisite: 50:220:105 or 106.
Economic development of each country is unique, reflecting geography, history, culture, and extant political system. Discernible patterns exist, nevertheless, in the contemporary developing economies. Profiles two rather different regions: the rapidly growing economies in East Asia and the transitional economies of the former socialist states in Eastern Europe. Based on various country studies, such issues as the keys to rapid growth with equity in East Asia, the complementary roles for the private and public sectors, and privatization in the former socialist economies discussed. Also discussed are the four major components: a stable macroeconomy, competitive domestic markets, investments in human capital, and integration with the international economy, which form a market-friendly strategy for economic development in a contemporary world.

50:220:363. Economics of Investment and Capital Markets (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Analysis of economic investment by using economic tools: value of firms, economic efficient frontier, lending and borrowing, utility analysis and investment selection, market interest rates, correlation structure of security returns, short- and long-term international investments with foreign risks, capital asset pricing model, efficient markets, and investment decision management.

50:220:366. Special Topics on Contemporary Economic Issues (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Examination of major economic issues facing society based on both macro and micro principles of economics, viewing these issues from a global context. This broad focus includes comparative analysis from an international perspective of such types as the economic role of government, natural resource development and use, labor markets and human resource development, capital markets and investment in productive capacity, impact of fiscal and monetary policies on economic activity levels, international trade and finance policies, strategies for economic growth and development, and economic systems and economic reform.

50:220:371. Economy of Japan (3)
Prerequisite: 50:220:105 or 106 or permission of instructor.
Analysis of various aspects of economic relationship between Japan and the United States: economic policy of Japanese government, financial system, Japanese corporations and industries, public finance and welfare, Japanese corporate management, employment system, Japanese trade and foreign direct investment, economic conflicts with the United States, and solutions.

50:220:391. Mathematical Economics (3)
Prerequisites: 50:220:105, 106; 50:640:129 or 130.
Offers operational methods and analytical tools for understanding almost all branches of economic science: microeconomics, macroeconomics, welfare economics, international trade, labor, urban, and public economics. Optimization principles, decision-making processes, comparative evaluations of alternative policies, program algorithms, and inventory control analyses clearly spelled out in mathematical fashion. Basic algebra and calculus initially reviewed, and the practical uses of those branches of mathematics shown in the enunciation of economic methods and models.

50:220:392. Business Cycles and Forecasting (3)
Prerequisite: 50:220:105 or 106.
Nature of economic fluctuations and major patterns of cyclical behaviors. Major theories of business cycles that explain factors determining cyclical fluctuations and economic growth in the economy. Methods of forecasting business and economic activity presented in relation to empirical studies of the United States.

50:220:396. Honors Program in Economics (BA)
See 50:220:495-496 below.

50:220:397. Industrial Economics: Structure, Conduct, Performance, and Policy (3)
Prerequisite: 50:220:105.
Examines the principles of economics of industrial organization and their application to selected industries in the United States and abroad. Studies issues such as concentration, economies of scale, entry barriers, product differentiation, innovations, merger activity, firm turnover, and the patent system.

50:220:398. Government Regulation of Business (3)
(Formerly 50:220:471, 50:220:397)
Prerequisite: 50:220:105 or 106.
Examines various dimensions of social control of business. While emphasis is placed on antitrust regulation, careful attention also given to public utility regulation; public enterprises; safety, health, environmental, and other regulatory issues of concern to the public.

50:220:399. Economics of Multinational Corporations (3)
Prerequisite: 50:220:105 or 106.
How multinational corporations make decisions as to where and how to invest for profit–risk factors in various circumstances, relevant government regulations, institutions the corporations have to deal with and how, cultural and environmental factors, political risks. Effects of currency and capital transfers and the influence of the corporation on the political and social environment of the countries involved.

50:220:442. Public Finance (3)
(Formerly 50:220:349)
Prerequisite: 50:220:105 or 106.
Analysis of spending patterns and sources of revenue of different levels of the public economy, intergovernmental relations, emphasis on fiscal policy including debt management. Decision-making techniques on choosing government projects. Incidence and allocative effect of taxes.

50:220:451. History of Economic Thought (3)
Prerequisites: 50:220:105 or 106 or permission of instructor.
Examines the development of economic thought to its present state, with emphasis on present-day shapers of economic thought and analysis, linking historical economic ideas to current issues.

50:220:472. ECONOMIC ANALYSIS OF THE LAW (3)
(Formerly 50:220:395)
Prerequisite: 50:220:105.
The application of basic economic concepts and analyses to the law and legal processes. How economics can be used to study issues in tort, criminal, contract, property, and negligence matters. Examines economic implications of the law pertaining to racial discrimination, environmental protection, and other standard corporate regulatory provisions.

50:220:491. INDEPENDENT STUDY PROJECTS IN ECONOMICS (3)
Prerequisites: Normally the courses in economic principles, statistics, and mathematics should have been completed. Permission of instructor. A maximum of 3 credits with a grade-point-average of 3.0 and 6 credits with a grade-point-average of 3.5 may be taken toward the degree. This course is coded by a faculty member; thus, when registering, the student should make certain that the forms will contain 220:491-X, where X means the relevant individual faculty member's code for this purpose.
Individual study under supervision of a member of the economics faculty. Requires research term paper of a level at least comparable to a regular course term paper. Student should obtain agreement from a faculty member to supervise the research project before registering.

50:220:492. ECONOMICS MAJOR SEMINAR (3)
Prerequisites: All other courses specifically required for the economics major.
Designed to integrate course materials, introduce recent philosophies and techniques in economics, and apply them to selected problems. Reading and research reports required. Topics vary from year to year.

50:220:495-496. HONORS PROGRAM IN ECONOMICS (BA,BA)
To enter program, student must submit a written proposal for departmental approval before registration. Credits awarded only on satisfactory completion of a two- or three-term sequence.
A program of readings and guided research in a topic proposed by the student, culminating in an honors thesis presented to departmental faculty for approval.

50:220:497. INTERNSHIP (3)
Students apply classroom learning to gain experience and develop skills in the fields related to their career interests through internships supervised by an instructor. The internship expands professional skills and earns academic credits, up to a 3 credit maximum, regardless of the duration of the internship (a minimum of 200 hours). Students required to file monthly activity reports and a final report and presentation to the Economics and Business Society.

EDUCATION 300

Web Site: http://www.camden.rutgers.edu/dept-pages/education_ugrad/index.html

Department of Education

Director: Marion Hussong, B.A., Rutgers; M.A., Ph.D., Pennsylvania

AssociateProfessor:
Steven Darian, B.S., CUNY (Hunter College); M.A., Ph.D., New York

The Department of Education offers courses leading to New Jersey Teacher Certification in the elementary school and/or subject matter field. All students seeking teacher certification must major in a liberal arts discipline. Post-baccalaureate students seeking teacher certification must have completed a B.A. degree or, if a B.S. degree has been earned, complete 30 credits in an appropriate liberal arts concentration.

Students who apply for elementary school certification also may be eligible for nursery school endorsement. Subject matter certification may be obtained by students who major in the following disciplines: computer science (with appropriate elective courses), English, fine arts, foreign language (French, German, or Spanish), history, mathematics, political science, psychology, science (biology, chemistry, or physics), and sociology/criminal justice.

The specific requirements for preparation for teacher certification will change as of fall 2001, as will procedures for admission to the program. Students will enroll in the teacher preparation program and will follow the requirements of that program. Information about these requirements will be available from the teacher preparation program office. Students enrolling in the teacher preparation program are responsible for obtaining and meeting the new requirements.

Admission to the Program

Admission to the teacher certification program at Rutgers–Camden is competitive. It occurs in a two-stage process and requires minimum grade-point averages of 2.8, both cumulatively and in the major course of study.

Students should note that new admission procedures will be in place for fall 2001. Students are responsible for obtaining information about and meeting the new requirements.

Stage One: Preliminary Requirements, Application, and Registration for the Teacher Certification Program

Students should consult with the Department of Education in their first term of attendance, either as first-year students or as transfer students, to obtain appropriate advising sheets and information. Admission to the first stage is based on the following requirements:

1. Students who have taken no prior education courses at Rutgers–Camden must have completed 50:350:101,102 English Composition with grades of C or better. Each developmental course in English or mathematics (50:350:097,098; 50:640:041,042) that a student is required to take must have been completed with grades of S.
2. An application to the teacher certification program must be completed at the time of registration. This application does not constitute admission. Admission to the program is not granted until the second stage of the admission process.

Stage Two: Application and Admission to the Teacher Certification Program

To qualify for admission to the second stage of the program, which includes student teaching placement, students must meet the following requirements:

1. Have a cumulative grade-point average of 2.8 overall and in the major course of study
2. Have filed a completed application for student teaching at least one full year in advance of the term in which student teaching will occur
3. Have documentation from the student's adviser in the major department that verifies the required cumulative grade-point average in major course requirements and the number of courses completed
4. Have completed at least half of the required professional education courses, including one term in either 50:300:450 Practicum in Education or 50:300:452 Practicum in Urban Education and one of 50:300:381 Educational Psychology, or 50:300:444 Comparative Education, or 50:300:434 Social and Cultural Foundations of Education

5. Have completed all general and major requirements, as outlined in the catalog, plus the course specific requirement for either elementary and / or secondary certification
6. Write an acceptable essay to accompany the application for admission to the Teacher Certification Program
7. Submit recommendations from two faculty members at Rutgers–Camden outside of the education department. Postbaccalaureate students may submit recommendations from members of the education faculty.

Course Specific Requirements

Elementary Certification

Students seeking elementary certification must include the following courses in their college core requirements:

1. A course in biology with a grade of C or better
2. Two credit-bearing courses in mathematics with a grade of C or better (only those with a 640 prefix). Highly recommended are 50:640:103, 104. 50:198:110 Introduction to Computing also is required.
3. Three social science courses selected from the following list:

50:070:213	Introduction to Cultural Anthropology (R) (3)
50:070:228	Childhood and Culture (3)
50:070:307	Psychological Anthropology (3)
50:830:101	Introduction to Psychology (3)
50:830:325	Psychology of Childhood (3)
50:830:326	Psychology of Adolescence (3)
50:830:328	Psychological Development of the Preschool Child (3)
50:830:330	Psychology of Learning (3)
50:830:346	Psychology of Language (3)
50:830:353	Intelligence (3)
50:830:361	Group Dynamics (3)
50:830:385	Psychological Tests and Measurements (3)
50:920:207	Introduction to Sociology (3)
50:920:323	Sociology of Childhood and Adolescence (3)
50:920:345	Sociology of Education (3)
50:920:455	Sociolinguistics (3)

4. Successful completion of 50:090:293 or 294 Science, Technology, and Society, or Intellectual Heritage
5. One intercultural relations course selected from the following list:

50:512:203 or 204	African-American History (3)
50:830:203	The Psychology of Minority Groups (3)
50:920:316	Racial and Ethnic Minorities in America (3)
50:920:321	Urban Sociology (3)
50:975:204	Poverty and Urban Environmental Systems (3)
50:975:219	History of the Ghetto and American Slums (3)

6. One course in American history and one course in European history

All candidates for elementary certification must follow the major course requirements as listed under the specific discipline with no exceptions.

Candidates for elementary certification also must complete the 30 credit-hour sequence in professional education listed below. Please note the courses marked with an asterisk.

Secondary Certification

Students seeking secondary certification must include the following courses in the college core requirements:

1. A course in biology with a grade of C or better
2. One credit-bearing course in mathematics and 50:198:110 Introduction to Computing
3. Three social science courses selected from the list provided above for elementary certification candidates
4. An intercultural relations course selected from the list provided above for elementary certification candidates
5. Two courses in history

All students seeking secondary certification in a subject field must follow the major course requirements as listed under the specific discipline with the following exceptions:

English
Include the following courses in your selection of electives:
a second term of Shakespeare (3)
a second term of linguistics (3)
two writing courses (6)
50:350:246 Literature of Childhood (3)

Fine Arts
Include the following courses in your selection of electives:
50:950:261 Fundamentals of Speech (3)
50:950:281 Public Speaking (3)

Mathematics
Omit the following courses:
50:640:312 Advanced Calculus II (3)
50:640:403 Introductory Theory of Functions of a Complex Variable (3)
Add the following courses:
50:198:110 Introduction to Computing (3)
50:640:237 Discrete Mathematics (3)
50:960:183 Elementary Applied Statistics (3)

Physical Science: Biology, Chemistry, or Physics Major*
Add the following courses:
50:100:306 Descriptive Astronomy (3)
50:460:101 Introduction to the Earth (3)

Social Studies
History major: Add one 3-credit course each in the fields of economics, geography, political science, psychology, and sociology / anthropology.
Economics, political science, psychology or sociology / anthropology majors: Add one full year of U.S. history, one full year of Western civilization, and at least one term of course work in each of the remaining three social science disciplines, including a course in geography.

Certification in Teaching English as a Second Language

To qualify for certification in teaching English as a second language, students must complete the following courses in addition to all other required courses for elementary and / or secondary certification:

50:300:345	Methods of Teaching English as a Second Language (3)
50:615:201	Introduction to Linguistics (3)
50:615:202	Applied Linguistics (3)
50:830:203	The Psychology of Minority Groups (3)

* Certification is not available in General Science.

Professional Education

All students must complete the following 30 credit-hour sequence in professional education:

The following courses are required:

50:300:309 Techniques for the Development of Reading and Related Language Skills (3)
50:300:371 Materials and Techniques in Elementary Education I (3)*
50:300:372 Materials and Techniques in Elementary Education II (3)*
50:300:373 Introduction to Media (2)
50:300:381 Educational Psychology (3)
50:300:383 Classroom Management (2)
50:300:399 Reading and Writing in the Academic Disciplines (3)†
50:300:408 Instructional Strategies (3)†
50:300:450 Practicum in Education (2)
50:300:452 Practicum in Urban Education (2)
50:300:487 Student Teaching (6)
50:300:492 Student Teaching Seminar (1)

Materials and Methods in Subject Field (K-12). Select the appropriate course:

50:300:354 Materials and Methods in Art (3)
50:300:369 Materials and Methods in Foreign Language Teaching (3)
50:300:405 Materials and Methods in Teaching English (3)
50:300:407 Materials and Methods in Social Studies, (Secondary Certification) (3)
50:300:411 Materials and Methods in Science (Secondary Certification) (3)
50:300:413 Materials and Methods in Mathematics (Secondary Certification) (3)
50:300:443 Materials and Methods of Teaching Music (3)

Select one of the following courses:

50:300:401 History of Education (3)
50:300:415 Introduction to Philosophy of Education (3)
50:300:434 Social and Cultural Foundations of Education (3)
50:300:444 Comparative Education (3)

Student Teaching

Student teaching is a full-time, one-term experience. Students are strongly advised to participate in no other activities at this time (e.g., work, course work).

Prior to or during the student teaching experience, all teaching candidates must take the Praxis Series (National Teacher's Examination) and earn an acceptable score as determined by the New Jersey Department of Education in order to be eligible for certification.

Following the completion of all requirements, the student applies for certification through the education department at Rutgers–Camden. Certification is granted by the New Jersey Department of Education.

Courses

50:300:309. Techniques for the Development of Reading and Related Language Skills (3)
Offers techniques for teaching reading, writing, speaking, and listening in a whole language approach. Secondary students apply techniques to their content specialty.

50:300:314. Diagnostic Approaches to Reading (3)
Prerequisite: 50:300:309.
Studies group and individual assessment techniques, techniques for individualizing instruction, and methods for the development of reading skills in content areas. Students develop informal diagnostic instruments and materials for content area instruction.

50:300:338. Early Childhood Education: The Young Child 0-3 Years (3)
Examines human development, philosophical, and social issues and curriculum in infant, toddler, and adult interactions. Particular emphasis on meaningful application in child observation study and selected projects.

50:300:339. Early Childhood Education: The Young Child 3-6 Years (3)
Basic contemporary perspectives and practices in early childhood education. Examines issues and techniques in responding to the growth and development of the preschool child in the context of the family, early learning environment, and community setting. Utilizes tools for observation, analysis, and evaluation of programs.

50:300:345. Methods of Teaching English as a Second Language (3)
Required for ESL endorsement.
Second language acquisition, reading-writing-speaking-listening, the role of visuality and media in language teaching, materials development, syllabus design, special methods, and English for specific purposes (e.g., science and business).

50:300:354. Materials and Methods in Art (3)
Methods, materials, and techniques of involvement in the visual arts. Production, history, criticism, evaluation, and appreciation of all forms of artistic expression covered. Develops a logical, sequential, and meaningful way to open eyes and broaden horizons. Traces the path from first experiences through specific skill development and portfolio preparation in grade 12.

50:300:369. Materials and Methods in Foreign Language Teaching (3)
The history, principles, scope, methodology, materials, and problems involved in teaching foreign languages. Students observe classes in schools and present model lessons in class.

50:300:371,372. Materials and Techniques in Elementary Education I,II (3,3)
Provides an integrated study of the methods and materials used in teaching the following elementary school curriculum: reading, language arts, social studies, mathematics, science, arts, music, and health and physical education. Includes observations of public school classrooms and involvement in projects related to instruction.

50:300:373. Introduction to Media (2)
Focus on multimedia. Using computers to coordinate still cameras, video, CD-ROM, laserdisc, scanner clip art, drawing (no artistic skill needed), and tape recorder for production of hard copy, overheads, slides, and direct screen projection. Examine principles of page design as well as a variety of other instructional materials.

50:300:381. Educational Psychology (3)
Examines how individuals develop and learn, with particular emphasis upon the classroom. Includes motivation, student interests, creating a healthy learning climate, language development, testing, and individual differences.

50:300:383. Classroom Management (2)
Prepares the teacher to deal with interpersonal dynamics within the classroom that affect the learning climate. Particular emphasis placed upon the areas of motivation, preventing classroom disruption, creating healthy learning climates, and individual and group learning.

* Required for elementary candidates only.
† Required for secondary candidates only.

50:300:399. READING AND WRITING IN THE ACADEMIC DISCIPLINES (3)
An analysis of the kinds of written discourse found in different academic disciplines, including the social sciences, humanities, natural sciences, and mathematics. Lexical, grammatical, and discourse-level features and patterns found in various academic disciplines. Applications of discourse analysis to the teaching of reading and writing in the content areas. Required for secondary school teachers.

50:300:401. HISTORY OF EDUCATION (3)
A general history of education with emphasis on educational institutions of the Western world from primitive times to the present.

50:300:405. MATERIALS AND METHODS IN TEACHING ENGLISH (3)
Studies the four language skills (reading, writing, speaking, and listening), their interrelationships, and methods of teaching them. Perception of literature as text in many genres. Emphasis on whole language philosophy and writing as process.

50:300:406. CHILDREN AND LANGUAGE (3)
Analyzes the use of language at the nursery school and kindergarten levels. Focuses on the development of children's speech, reading, and writing patterns from ages six to twelve and on the language of the classroom and the interaction of teachers and pupils.

50:300:407. MATERIALS AND METHODS IN SOCIAL STUDIES (SECONDARY CERTIFICATION) (3)
Considers the materials and methods of instruction adapted to social studies in secondary schools. Focuses on the preparation of social studies teachers, literature on materials and methods, aims and objectives, organization of curriculum assignments, unit teaching, methods of evaluating learning, use of media technology in instruction, collateral readings, and standardized tests.

50:300:408. INSTRUCTIONAL STRATEGIES (3)
Examines curriculum development and evaluation. Includes study of teaching decisions as to goals and objectives, organization and presentation of subject matter, questioning techniques, and assessment.

50:300:411. MATERIALS AND METHODS IN SCIENCE (SECONDARY CERTIFICATION) (3)
Examines the aims and development of science education. Approximately half of the course devoted to analysis of methods used in the various sciences taught in schools: the demonstration laboratory, project methods, and use of media and field trips. Also considers such extra-class activities of the teacher as ordering and storing supplies and equipment, advising clubs, study for professional advancement, and selection of textbooks and materials. Additional topics added as the needs of the class indicate.

50:300:413. MATERIALS AND METHODS IN MATHEMATICS (SECONDARY CERTIFICATION) (3)
Covers the selection, organization, presentation, and application of mathematics. Provides the students with techniques to alleviate math anxiety and to present instruction that will accommodate various learning styles and developmental levels.

50:300:415. INTRODUCTION TO PHILOSOPHY OF EDUCATION (3)
Introduces the student to the views of distinguished philosophers through examination of philosophic issues which bear upon education. Treats conflicting theories of reality, knowledge, and value in terms of realism, idealism, and pragmatism.

50:300:416. SPECIAL TOPICS IN EDUCATION (BA)
Prerequisite: Permission of instructor.
Examines a specially selected topic primarily, but not exclusively, for advanced students. Provides the student with the opportunity to pursue a variety of fields that may not be covered in other courses.

50:300:434. SOCIAL AND CULTURAL FOUNDATIONS OF EDUCATION (3)
Provides an introduction to social and cultural foundations of education. Explores knowledge and value of conflicting theories of reality through an examination of converging and diverging issues in a cultural context. Analyzes contemporary issues related to the school as a social system immersed in the broader societal context of American education.

50:300:443. MATERIALS AND METHODS OF TEACHING MUSIC (3)
Examines the methods, materials, and techniques of the public school's general, vocal, and instrumental music and related theory programs. Includes the development of sequential musical concepts necessary for an effective instrumental, vocal, and general music program.

50:300:444. COMPARATIVE EDUCATION (3)
Investigates different countries' education systems and the cultural values and social patterns that have created them. Countries examined include: Japan, China, Russia, France, Germany, the United Kingdom, Israel, and countries in the Arab world.

50:300:450. PRACTICUM IN EDUCATION (2)
Students spend three hours weekly in classroom observation and participation. On-campus meetings held prior to classroom observations and at intervals during the term.

50:300:452. PRACTICUM IN URBAN EDUCATION (2)
Students spend three hours weekly in classroom observation and participation in an urban public school. On-campus meetings held prior to classroom observations and at intervals during the term.

50:300:487. STUDENT TEACHING (6)
Prerequisites: Approval of department; application made one year in advance of term in which student teaching will occur. Corequisite: 50:300:492.
Full-time student teaching in approved schools under the supervision of cooperating teaching and college supervisor.

50:300:492. STUDENT TEACHING SEMINAR (1)
Corequisite: 50:300:487.
Biweekly seminar coordinated with student teaching experience to examine actual student teaching situations and provide for specific application of 1) instructional strategies presented in materials and methods courses, and 2) psychological principles studied in educational psychology and classroom management courses.

50:300:495. INDEPENDENT STUDY IN EDUCATION (BA)
Prerequisites: Permission of department and agreement by a department member to supervise the work.

ENGINEERING TRANSFER PROGRAM 005

See the listing earlier in this chapter.

ENGLISH (English Literature and Writing 350, American Literature 352, Film Studies 354, Journalism 570, Linguistics 615)

Web Site: http://english.camden.rutgers.edu/

Major requirements in English can be completed either through daytime or evening attendance.

Department of English

Chairperson: Geoffrey Sill

Director of the Writing Program: M.A. Rafey Habib

Professors:

Betsy Bowden, B.A., Wisconsin; Ph.D., California (Berkeley)
Walter K. Gordon (emeritus), A.B., Clark; M.A., Ph.D., Pennsylvania
William D. Lutz, A.B., Dominican College; M.A., Marquette; Ph.D., Nevada (Reno); J.D., Rutgers
Diane McColley, A.B., California (Berkeley); Ph.D., Illinois
Robert M. Ryan, A.B., St. Joseph College; A.M., Ph.D., Columbia
James L. Sanderson (emeritus), A.B., A.M., Michigan; Ph.D., Pennsylvania
Lisa Zeidner, A.B., Carnegie Mellon; M.A., Johns Hopkins

Associate Professors:

John C. Berkey (emeritus), A.B., Hobart College; M.A., Ph.D., Pennsylvania
Marie Cornelia, B.A., Nazareth College; M.A., Ph.D., Fordham
Eddy Dow (emeritus), B.A., Western Michigan; M.A., Iowa; Ph.D., Pennsylvania
Christopher J. Fitter, B.A., M.A., Ph.D., Oxford
M.A. Rafey Habib, B.A., Essex; Ph.D., Oxford
Timothy P. Martin, A.B., Harvard; M.A., Stanford; A.M., Ph.D., Pennsylvania
Donald Mull, A.B., Kenyon College; M.A., Ph.D., Yale
Geoffrey Sill, B.A., Miami; M.A., Ph.D., Pennsylvania State
Carol J. Singley, B.A., M.A., Pennsylvania State; Ph.D., Brown

Assistant Professors:

Richard Epstein, B.S., Pennsylvania; M.A., University of Paris VII; Ph.D., California (San Diego)
Tyler B. Hoffman, B.A., Dartmouth; M.A., Ph.D., Virginia
Caroline Levine, B.A., Princeton; Ph.D., London

Prerequisite for All Students

50:350:101-102 English Composition I,II, or their equivalents, are prerequisites for all courses in English 350, American Literature 352, Film Studies 354, Journalism 570, and Linguistics 615.

Major Requirements: CCAS and UC–C

The major in English consists of 42 credits in English with a grade of C or better, exclusive of 50:350:101-102 and 238. All majors are required to take:

1. 50:350:225,226 Major British Writers I,II
2. 50:350:239 World Masterpieces II
3. At least one course in Shakespeare (50:350:331 or 332)
4. At least one course in British literature before 1800
5. At least one course in British literature after 1800
6. At least one of the American literature survey courses (50:352:225 or 226)
7. At least two additional courses in American literature
8. At least one course in philology, which may be Introduction to Language (50:350:240), Old English Language and Literature (50:350:411), or any courses in linguistics (subject code 615)
9. Twelve additional credits in courses offered by the English department

English majors may substitute certain advanced foreign language courses for as many as 6 of the 12 English elective credits. A list of such foreign language courses offered at Rutgers–Camden is available in the English department office.

English majors seeking certification to teach grades K–12 must meet the requirements for English education majors instead of the requirements for standard English majors.

Credit toward an English major or minor is given only for English department courses in which a student receives a grade of C or better.

A student may satisfy one of the specific requirements listed above with a grade of D, but the 3 credits for that course may not be included in the 42 required for the major. An additional 3-credit English course must be taken to make up the deficit.

Students are advised to complete 50:350:225, 226, 238, and 239 before enrolling in more advanced English courses.

Minor Requirements: CCAS and UC–C

Students should declare their intention to minor in English to the department in writing. The minor in English consists of at least 18 appropriate credits (exclusive of 50:350:101-102) taught in the English department. All courses must be at the 200 level or above and at least 6 credits of the minor must be in courses at the 300 to 400 level.

English majors may earn certification for a specific minor field within the English department by completing 18 credits in that field. As many as 6 credits may be counted toward both an English major and one specific English minor—in which case only 12 additional credits need be earned for that minor—but a second specific minor requires at least 18 new credits.

American Literature Minor. Requires at least 18 credits in program 352.

Communication Minor. Requires at least 18 credits (exclusive of 50:350:101-102) in writing courses (350), film studies (354), or journalism (570).

English Literature Minor. Requires at least 18 credits in program 350 (exclusive of 50:350:101-102 and writing courses).

English Minor. Requires at least 18 credits (exclusive of 50:350:101-102) in programs 350, 352, 354, 570, or 615.

Journalism Minor. Requires 50:570:301 and at least 15 more credits in program 570.

Linguistics Minor. Requires 50:615:201 and at least 15 more credits in program 615.

Writing Minor. Requires at least 18 credits in writing courses (exclusive of 50:350:101-102).

See related minor programs in Film, Women's Studies, and the Walt Whitman Program in American Studies.

Independent Study: CCAS and UC–C

A student must have a grade-point average in English of 3.3 or better to pursue independent study and may enroll in only one independent study course per term. The student should discuss the contemplated project with, and secure the approval of, the instructor under whom the student wishes to work. The instructor, as sponsor, then submits a proposal to the Curriculum Committee for approval. All proposals must be received by the committee before the end of the preregistration period. Normally the department does not permit independent study in areas in which courses are regularly offered.

Departmental Honors Program: CCAS and UC–C

A student may qualify for departmental honors in English by fulfilling the following special requirements in addition to the regular requirements for the English major:

1. Obtain a 3.5 grade-point average in the courses required for the English major and a 3.2 cumulative grade-point average in the entire undergraduate program.
2. Complete an additional course in pre-1800 literature from among those offered by the department, for a total of 45 credits in English.

3. Complete two consecutive terms (6 credits), normally in the senior year, of either 50:350:495,496 Honors Program in English or 50:352:495,496 Honors Program in American Literature under the supervision of a faculty sponsor.

Normally the program consists of one term primarily devoted to preparatory reading and an examination, and a second term primarily devoted to producing a substantial research paper, both in consultation with a faculty sponsor. A student who desires honors in English should make arrangements with a faculty sponsor during the term preceding the beginning of the honors course and submit a one- or two-page proposal with a preliminary bibliography to the sponsor, who will present it to the Honors Committee. If the proposal is approved, the student may preregister for the appropriate honors course and make arrangements for consultations with the sponsor.

In recognition of satisfactory completion of the honors program, the registrar will note on the student's permanent academic record Honors in English.

Teacher Certification in English: CCAS and UC–C

Students seeking teacher certification in English must complete the requirements for a major in the English department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult their departmental adviser.

Graduate Courses for Undergraduate Credit: CCAS and UC–C

To give undergraduates the opportunity to complete additional advanced work in their discipline, graduate courses in the English department, with the permission of the instructor concerned and the director of the English graduate program, are open to qualified undergraduates. Students interested in such an option should confer with their departmental adviser.

Courses (English 350)

50:350:097. ENGLISH FOR NON-NATIVE SPEAKERS (R) (NC)
Prerequisite: Permission of instructor. Load equivalent to a 3-credit course.
A beginning-intermediate level course covering the sound system, grammatical structures, and vocabulary of English, with special attention to problems in writing.

50:350:098. EFFICIENT READING (R) (NC)
Load equivalent to a 3-credit course.
Development of reading skills necessary for success in college work. Training in critical reading with an emphasis on reading for main ideas, structure, and logical development of arguments.

50:350:099. BASIC WRITING SKILLS (R) (NC)
Load equivalent to a 3-credit course.
An intensive review of fundamentals of standard English grammar and mechanics, with application of these fundamentals in short expository themes.

50:350:101-102. ENGLISH COMPOSITION I,II (R) (3,3)
Prerequisite: Satisfactory score on the New Jersey College Basic Skills Placement Test, or successful completion of 50:350:099.
Instruction and practice in writing expository prose, including a documented research report.

50:350:108. COMPOSITION FOR NON-NATIVE SPEAKERS OF ENGLISH (R) (3)
Prerequisites: 50:350:097 and / or permission of instructor.
Instruction and practice in writing English prose, including a documented research paper. Successful completion of this course qualifies the student for 50:350:102.

50:350:220. INTRODUCTION TO LITERARY STUDY (3)
Survey of research sources and critical approaches to be used in reading and writing about literary texts, including materials available on the Internet.

50:350:225. MAJOR BRITISH WRITERS I (3)
Readings and discussion of the great English writers from Chaucer to the beginnings of the Romantic movement.

50:350:226. MAJOR BRITISH WRITERS II (3)
Readings and discussion of the great English writers from Wordsworth to the present.

50:350:228. NOBEL-WINNING AUTHORS (3)
Selected readings from the works of authors who have been awarded the Nobel Prize for literature.

50:350:230. LITERATURE AND STYLE (3)
Readings from writers and critics about how writers relate to their public, with an examination of the politics of literary reputation and fashion.

50:350:238. WORLD MASTERPIECES I (3)
Prerequisites: 50:350:101-102.
Studies in great works of world literature from antiquity to the early modern era.

50:350:239. WORLD MASTERPIECES II (3)
Prerequisites: 50:350:101-102.
Studies in great works of world literature from the dawn of the modern era to the present.

50:350:240. INTRODUCTION TO LANGUAGE (3)
Nontheoretical overview of basic grammatical concepts and general interest questions relating to language.

50:350:245. FOLKLORE (3)
The major genres of folklore, including proverb, folktale, and folk song, with some attention to the methods of collecting and analyzing these materials.

50:350:246. LITERATURE OF CHILDHOOD (3)
A study of the meaning and importance of literature read and enjoyed by children, focusing on folklore, fantasy, and adolescent fiction.

50:350:300. PERSUASIVE WRITING (3)
The fundamental techniques of argument, demonstration, and persuasion; analysis of sample readings and extensive writing practice.

50:350:301. THE ART OF WRITING (3)
Practice in the art of constructing clear, concise prose, with emphasis on developing a personal style.

50:350:302. SCIENTIFIC AND TECHNICAL WRITING (3)
Methods of gathering and organizing information, analyzing the purpose and audience of a communication, selecting the appropriate organizational pattern and format, and convincing the audience through persuasive techniques.

50:350:303. WRITING FOR THE PROFESSIONS (3)
Practice in the purposes, skills, and styles of professional communications; emphasis on audience identification, effective use of language, research techniques, and organization of ideas.

50:350:304. THE TEACHING OF WRITING (3)
Teaching of writing in English courses and in other academic disciplines; new theories in rhetoric and / or creative writing.

50:350:305. Introduction to Creative Writing (3)
Introduction to the writer's craft that surveys available genres of poetry, fiction, and creative nonfiction.

50:350:306. Poetry Writing Workshop (3)
Study of the creative process involved in the writing of poetry, the techniques and discipline required, and trends in contemporary poetry.

50:350:307. Fiction Writing Workshop (3)
Study and practice of specific stylistic techniques used by professional writers in fiction and nonfiction. For students with a serious interest in writing.

50:350:308. Texts and Theories (3)
Survey of critical approaches to reading and writing about literary texts, including methods of research and documentation.

50:350:309. Reading and Writing in the Elementary Curriculum (3)
Analysis of the forms of discourse used by various academic disciplines in elementary education, including the social sciences, humanities, natural sciences, and mathematics.

50:350:310. Reading and Writing in the Secondary Curriculum (3)
Analysis of the forms of discourse used by various academic disciplines in secondary education, including the social sciences, humanities, natural sciences, and mathematics.

50:350:313. Classical Backgrounds of English Literature (3)
The influence on English and American literature of classical Greek and Roman epic, tragedy, comedy, and other literary forms.

50:350:314. Biblical Backgrounds of English Literature (3)
The influence of the King James and other versions of the Bible on English and American literature.

50:350:316. Medieval Literature (3)
Survey of literature, from Beowulf through the fifteenth century: plays, songs, adventure narrative, religious allegory, and other genres.

50:350:317. English Renaissance Literature (3)
A study of major authors, including More, Sidney, Spenser, Marlowe, Shakespeare, and Donne.

50:350:318. Seventeenth-Century Literature (3)
A study of major writers in the age of metaphysical wit and emerging new philosophies: Donne, Jonson, Herbert, Marvell, Burton, Browne, and Bunyan.

50:350:321. Eighteenth-Century Literature (3)
Major themes and writers in English from Dryden to Wollstonecraft, emphasizing the emergence of women as writers and readers of literature.

50:350:322. Romantic Period (3)
Literature of the Age of Revolution: major works of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

50:350:324. Victorian Literature (3)
A thematic and analytic approach to the major prose and poetry of the period, with emphasis on the works of Tennyson, Browning, Arnold, Carlyle, and Ruskin.

50:350:330. Chaucer (3)
Critical analysis of The Canterbury Tales, Troilus and Criseyde, and selected shorter works.

50:350:331. Shakespeare I (3)
A study of selected comedies, history plays, and tragedies of the Elizabethan period (to 1603).

50:350:332. Shakespeare II (3)
A study of the plays of the Jacobean period (from 1603 on), with particular emphasis on the tragedies.

50:350:333. Milton (3)
A study of the minor poems, selected prose, Paradise Lost, Paradise Regained, and Samson Agonistes.

50:350:334. The Bible as Literature (3)
A study of the Bible, its literary variety, and historical and religious development.

50:350:335. Intellectual Backgrounds of Twentieth-Century Literature (3)
A study of the major works of twentieth-century literature in the context of the great intellectual achievements of the past two centuries.

50:350:338. Literature and the Natural Environment I (3)
Traces perceptions of nature and the roots of current environmental attitudes from ancient literature to post-Enlightenment nature writing, with emphasis on British literature from 1400–1800.

50:350:339. Literature and the Natural Environment II (3)
Looks at British, American, and Native-American nature writing since 1800 and considers how perceptions and uses of the natural world affect both nonhuman nature and the human communities within it.

50:350:342. Modern British Poetry (3)
A study of the major poets of our century, with emphasis on Yeats, Eliot, Auden, and Dylan Thomas.

50:350:345. Comic Literature (3)
A study of the comic tradition in British and American literature, including such writers as Chaucer, Shakespeare, Fielding, Byron, Dickens, Mark Twain, Shaw, and Waugh, as well as some contemporary humorists.

50:350:346. World Drama (3)
A survey of drama throughout the world from Western and non-Western classics to forerunners of modern realism.

50:350:348. Literature of Horror (3)
A study of the horror story from its Gothic origins to its present popularity in fiction and film.

50:350:349. English Drama to 1642 (3)
English drama (exclusive of Shakespeare) from its origins in medieval pageantry through its Elizabethan flowering to its decadence and the Puritan closing of the theaters.

50:350:351. English Drama, 1660–1800 (3)
The English theater from the Restoration to the emergence of sentimental and "laughing" comedy.

50:350:353. Modern Drama (3)
The background of the contemporary theater explored in the works of major European and British dramatists from Ibsen and Chekhov to Brecht and Beckett.

50:350:356. Rise of the Novel (3)
Selected novels of the eighteenth century with emphasis on Defoe, Richardson, Fielding, Burney, and Austen.

50:350:357. Nineteenth-Century British Novel (3)
Readings in the Victorian novel: Dickens, the Brontës, Trollope, Thackeray, Meredith, and George Eliot.

50:350:358. Modern British Fiction (3)
Development of the modern novel through examination of the works of the major writers of the century, with emphasis on Joyce, Lawrence, Woolf, and Beckett.

50:350:364. The Short Story (3)
A study of the short story as a literary genre by examining the works of major world authors.

50:350:365. Science Fiction (3)
A study of major works of science fiction by such authors as Bradbury, Clarke, Asimov, LeGuin, and Ellison.

50:350:367. Popular Culture (3)
A study of literature as it has been influenced by such elements of popular culture as best-sellers, magazines, newspapers, film, radio, and television.

50:350:370. Biography and Autobiography (3)
Exploration of the nature of these genres in works primarily British and American by such authors as Augustine, Boswell, Rousseau, Wordsworth, and Henry James.

50:350:371. Literature of Travel (3)
A study of why people leave home and how they challenge the borderlines between fact and fiction while converting life into literature.

50:350:372. Anglo-Irish Literature (3)
A study of the major figures of the Irish literary renaissance, including Yeats, Synge, O'Casey, and Joyce.

50:350:374. Legends Past and Present (3)
Narratives of heroes, quests, supernatural occurrences, and other extraordinary activities of humans past and present, focusing on Germanic, Celtic, and Native-American cultures.

50:350:375. Detective Fiction (3)
The development of this popular literary genre from its beginnings in Poe's short stories through the present, with varying emphasis on American, British, and European authors, among them Doyle, Chandler, Faulkner, Nabokov, and Borges.

50:350:376. Literature and Psychology (3)
Psychological interpretation of the literary text; the psychology of composition and of reader response.

50:350:377. Literature and Sexuality (3)
Sexual themes, fictions, and fantasies in English and American literature: the distinction between pornographic and nonpornographic erotic writing, the grotesque, the violent, and the romantic.

50:350:378. Religion in Literature (3)
A study of religious themes in British and American literature from the seventeenth century to the present.

50:350:380. Mythology (3)
Narratives of interaction between human and divine, as retold in literature and cultures including ancient Greek and Judeo-Christian.

50:350:381. Literature and War (3)
How the subject of war shapes literary responses and techniques. Writers include Homer, Shakespeare, Tolstoy, Crane, Owen, and Heller.

50:350:388. Women in Literature (3)
Analyzes the treatment of women in selected world fiction, drama, poetry, and essays.

50:350:389,390. International Studies (3,3)
A short-term study tour abroad focusing on a literary theme, with class lectures, required readings, and written assignments.

50:350:393,394. Special Topics in Literature (1-3,1-3)
Primarily, but not exclusively, for advanced students. Courses with different topics may be repeated for credit.
A course in a specially selected topic.

50:350:401,402. Advanced Writing (3,3)
Advanced instruction and practice in expository, scientific, technical, or business writing.

50:350:403,404. Advanced Creative Writing (3,3)
Advanced work in creative writing.

50:350:407,408. Independent Study in English (BA,BA)
An opportunity for advanced students to work individually with an instructor on a self-determined course of study. The project culminates in a substantial paper.

50:350:410. Methods and Issues in Secondary English Education (3)
Using primary texts as the basis for identifying its methods, focus is on curriculum development, delivery of course content, classroom management, use of assignments, and the relationship between grades and standards.

50:350:411. Old English Language and Literature (3)
An introduction to the reading and analysis of Old English, including Beowulf.

50:350:415,416. Seminar in Literature (3,3)
An opportunity for juniors and seniors to pursue advanced study of literature in a small group format.

50:350:431. World Novel to 1900 (3)
Major novels selected from such world literatures as the Russian, French, Spanish, Japanese, and German, read in translation.

50:350:432. World Novel in the Twentieth Century (3)
Major novels from the literatures of Europe, Latin America, Africa, and the East, read in translation.

50:350:441. Literary Theory and Criticism (3)
A study of major approaches to literature ranging from Plato and Aristotle to the present.

50:350:481,482. Readings in Major Authors (3,3)
An intensive study of the works of a single author, or of two or three related authors.

50:350:495,496. Honors Program in English (3,3)

50:350:497. Internship in English (3)
Application of English skills in a volunteer or professional employment setting. Individually designed and evaluated experience under supervision of intern adviser. Commitment of at least 100 hours.

Courses (American Literature 352)

50:352:225. American Literature Survey I (3)
Survey of the fiction, nonfiction, and poetry of America from colonial times to the Civil War.

50:352:226. American Literature Survey II (3)
Survey of the fiction, nonfiction, poetry, and drama of America from the Civil War to the present.

50:352:230. Survey of American Literature (3)
Survey of the fiction, nonfiction, poetry, and drama of America from colonial times to 1900.

50:352:250. African-American Literature I (3)
African-American literature from its origins in spirituals and blues through the "Renaissance" writers to the writings of Wright and Ellison.

50:352:251. African-American Literature II (3)
African-American literature from World War II, including fiction by Baldwin, Petry, Jones, Williams, and Killens; poetry by Hughes, Tolson, and Brooks; and promising contemporary writers.

50:352:305. Nineteenth-Century American Poetry (3)
Selected readings in nineteenth-century poetry, poetics, and culture. Syllabus may include satirical, romantic, transcendental, abolitionist, Civil War, and regional poetry, as well as folk songs, spirituals, and versions of American Indian poetry.

50:352:308. American Renaissance I (3)
Early to mid-nineteenth century Romantic writers such as Emerson, Fuller, Thoreau, Hawthorne, Poe, Douglass, and Jacobs.

50:352:309. American Renaissance II (3)
Mid- to late-nineteenth century Romantic writers such as Stowe, Melville, Dickinson, Whittier, Harper, and Wilson.

50:352:311. American Realism and Naturalism (3)
Readings in post–Civil War writers such as Twain, James, Howells, Crane, Wharton, Dreiser, Chopin, Chesnutt, and Dunbar.

50:352:313. Recent American Writing (3)
Readings in American poetry, fiction, and drama since 1950.

50:352:322. Modern American Poetry I (3)
Selected readings in modernist poetry and poetics, 1900–1950. Such authors as Pound, H.D., Eliot, Frost, Stein, Williams, Stevens, Moore, Rukeyser, and Hughes.

50:352:323. Modern American Poetry II (3)
Selected readings in postmodern poetry and poetics, 1950–present. Such authors as Brooks, Ginsberg, Plath, Baraka, O'Hara, Ashbery, Soto, Rich, and Hejinian.

50:352:325. Multicultural American Literature (3)
Readings in multicultural literature of the United States—for example, Anglo-European, African-American, Asian-American, Chicano, Jewish-American, and Native American—with emphasis on relationships between culture and literary form, theme, and language.

50:352:329. American Drama (3)
The development of drama in the United States, with emphasis on twentieth-century themes and forms. Likely playwrights include O'Neill, Stein, Williams, Odets, Hansberry, Miller, Albee, Wilson, Kushner, and Wasserstein.

50:352:337. American Novel to 1900 (3)
The development of the novel in America through the nineteenth century. Works by such authors as Rowson, Brown, Cooper, Hawthorne, Stowe, Melville, Twain, Crane, and James.

50:352:338. Modern American Novel (3)
Readings chosen from the works of leading American novelists from Henry James to 1950.

50:352:339. Postmodern American Novel (3)
Study of the development of the American novel since 1950. Readings in works by such authors as Pynchon, Coover, Barth, Walker, DeLillo, Reed, Morrison, Kingston, and Cisneros.

50:352:350. African-American Writing in Its Social Context (3)
Study of works by such writers as DuBois, Malcolm X, King, and Jones, who have significantly affected the thinking and writing of contemporary African-American writers.

50:352:353. Postcolonial Literature (3)
Focuses on modern literary works written in English from one or two areas of the world formerly under imperial subjugation. Situates those works in a historical context centered on the transition from colonialism to postcolonialism. A few theories of colonialism, offered by writers such as Marx, Frantz Fanon, Edward Said, Gayatri Spivak, and Homi Bhabha, help in identifying the major themes of postcolonial writing. These themes include ethnocentrism, nationalism, the formation of subjectivity, gender, and the nature of cultural domination.

50:352:391,392. Special Topics in American Literature (3,3)
Primarily, but not exclusively, for advanced students. Courses with different topics may be repeated for credit.
A course in a specially selected topic.

50:352:407,408. Independent Study in American Literature (BA,BA)
An opportunity for advanced students to work individually with an instructor on a self-determined course of study. The project culminates in a substantial paper.

50:352:436,437. Major Writers of America (3,3)
An intensive study of the works of a single author, or of two or three related authors.

50:352:451. Major African-American Writers (3)
An intensive study of the principal works of two or three major African-American writers.

50:352:491,492. Seminar in American Literature (3,3)
An opportunity for juniors and seniors to pursue advanced study of literature in a small-group format.

50:352:495,496. Honors Program in American Literature (3,3)

Courses (Film Studies 354)

50:354:300. History of the Film (3)
The development of major film movements, with particular attention to the technical and stylistic contributions of major directors.

50:354:310. Literature and Film (3)
Adaptations from other narrative and dramatic forms; relations between literary and film conventions; special problems in adapting literary works to film.

50:354:315. American Film (3)
The American film from the silent period to the present; concentrated study of several major directors, such as Ford, Hawks, and Welles.

50:354:320. World Cinema (3)
Major developments and achievements in French, Italian, British, Russian, and other national cinemas; cross influences between foreign and American cinema.

50:354:350. Major Filmmakers (3)
The viewing, analysis, and discussion of selected films by such directors as Griffith, Eisenstein, Ford, Huston, Welles, Bergman, Fellini, Buñuel, and Kurosawa.

50:354:391,392,393,394. Special Topics in Film (3,3,3,3)
Primarily, but not exclusively, for advanced students. Courses with different topics may be repeated for credit.
A course in a specially selected topic.

50:354:396,397,398,399. Studies in Film Genres (3,3,3,3)
Intensive study of a particular genre of film, including the musical, the western, the crime drama, the comedy, or science fiction film.

50:354:395. Screenwriting (3)
Instruction and practice in preparing screenplays for production.

Courses (Journalism 570)

50:570:300. Introduction to Journalism (3)
Modern journalism techniques in newspapers, magazines, radio, and TV. The nature and sources of news, accuracy and fairness in reporting, and the legal limits of press freedom.

50:570:301,302. News Reporting and Writing (3,3)
The basic "straight" news story, with excursions into the second-day story and the follow-up; emphasis on writing professionally.

50:570:319. COPY EDITING I (3)
Prerequisite: At least one term of 50:570:301,302.
Basic copy editing and headline writing.

50:570:320. COPY EDITING II (3)
Prerequisite: 50:570:319.
Emphasis on newspaper layout and story selection, plus selecting and cropping photographs.

50:570:335. FREE-LANCE ARTICLE WRITING (3)
Magazine writing from the initial idea to the completed manuscript, including possible publication.

50:570:336. REVIEW WRITING (3)
Analysis of styles and trends in contemporary reviewing, with instruction and practice in writing criticism of books, theater, cinema, and various other arts.

50:570:337. THE PERSONAL ESSAY (3)
Writing workshop focusing on the use of personal, autobiographical material.

50:570:395,396. SPECIAL STUDIES IN JOURNALISM (3,3)
Primarily, but not exclusively, for advanced students. Courses with different topics may be repeated for credit.
A course in a specially selected topic.

50:570:491,492. INDEPENDENT STUDY IN JOURNALISM (BA,BA)
Prerequisites: 50:570:301,302, and 335 with a minimum cumulative grade-point average of 3.0.
An opportunity for advanced students to pursue their interests in journalism in a self-determined course of study under the direction of a faculty member.

Courses (Linguistics 615)

50:615:201. INTRODUCTION TO LINGUISTICS (3)
Introduction to linguistics and its areas of inquiry, such as sociolinguistics, syntax, semantics, phonetics, phonology, and morphology. Techniques of linguistic analysis and their applications to various languages.

50:615:202. APPLIED LINGUISTICS (3)
Prerequisite: 50:615:201 or permission of instructor.
A survey of the applications of linguistics in various areas: the media, advertising, language acquisition, and English as a second language. Other topics include analysis of spoken discourse, language planning, and standardization.

50:615:225. LANGUAGE, CLASS, AND CULTURE (3)
A nontechnical study of social and geographical language differences, how men's and women's speech differ, standard versus nonstandard dialects, formal and informal speech styles, bilingualism, pidgin and creole languages.

50:615:331. LINGUISTICS AND LITERATURE (3)
Application of concepts of linguistic analysis to the interpretation of literary texts. Topics include metaphor, speech acts, politeness, inference, point of view, and speech / thought presentation.

50:615:336. MODERN AMERICAN GRAMMAR (3)
A linguistic approach to English grammar. Theory and practical implications of English phonology, morphology, and syntax.

50:615:341. DIALECTOLOGY (3)
The principles and methods of dialect study with emphasis on the nature and distribution of regional and social dialects in the United States.

50:615:380. HISTORY OF THE ENGLISH LANGUAGE (3)
A linguistic study of the English language at various periods of its history, the processes of change from one period to another, and the relationship of English to other languages.

50:615:386,387. SPECIAL STUDIES IN LINGUISTICS (3,3)
A course in a specially selected topic.

50:615:430. SYNTAX (3)
Prerequisite: 50:615:201 or permission of instructor.
An investigation of the syntactic structure of human languages, with particular emphasis on English within the transformational generative framework.

50:615:495,496. INDEPENDENT STUDY IN LINGUISTICS (BA,BA)
Prerequisite: 50:615:201 or permission of instructor.
An opportunity for advanced students to work individually with an instructor on a self-determined course of study. The project culminates in a substantial paper.

FILM

Web Site: http://www.camden.rutgers.edu/~film/film.html

Director: Allen Woll, Department of History

The interdisciplinary minor in film, which introduces students to both the critical study of film as well as the study of filmmaking, emphasizes major aspects of film studies including film history, film genre, international film, and artistic issues; and offers practicums in filmmaking, screenwriting, and film criticism.

Students minoring in film are required to complete a minimum of 18 credits. No more than 6 credits may be selected from any one of the following areas of specialization.

Areas of Specialization:

History
- 50:510:396 Imagining European History on Film (3)
- 50:510:397 Imagining Russian and Soviet History on Film (3)
- 50:512:388 History of Television (3)
- 50:512:389 American Film History: 1890–1940 (3)
- 50:512:390 American Film History: 1940–Present (3)

Genre Studies
- 50:354:391,392,393,394 Special Topics in Film (3,3,3,3)
- 50:354:396,397,398,399 Special Topics in Film Genres (3,3,3,3)

International Film
- 50:354:320 World Cinema (3)
- 50:420:305,306 The French Cinema (3,3)
- 50:470:271 German Cinema in English Translation I (3)
- 50:470:272 German Cinema in English Translation II (3)
- 50:470:386 Special Topics in German Cinema (3)

Art of the Film
- 50:082:361 Art of Film (3)
- 50:082:362 Special Topics in Cinematography (3)
- 50:354:310 Literature and Film (3)
- 50:354:350 Major Filmmakers (3)

Practicum
- 50:080:340 Introduction to Filmmaking (3)
- 50:080:447 Experiments in Filmmaking (3)
- 50:080:486 Computer Animation (3)
- 50:354:395 Screenwriting (3)
- 50:570:336 Review Writing (3)

Cinema and Society
- 50:070:319 Visual Anthropology (3)

Special topics courses are announced each term and may be taken for film minor credit with approval of the program director.

FINANCE 390

See the Courses chapter in the School of Business–Camden section.

FINE ARTS (Art 080, 082; Dance 203; Music 700, 701; Speech 950; Theater Arts 965)

Web Site: http://finearts.camden.rutgers.edu/

Chairperson: John J. Giannotti

Professors:

Julianne Baird, B.A., M.A., Eastman School of Music, Rochester; Graduate Diploma Mozarteum, Salzburg, Austria; Ph.D., Stanford
John J. Giannotti, B.F.A., SUNY (Buffalo); M.F.A., Rutgers (Mason Gross School of the Arts)
William M. Hoffman (emeritus), B.F.A., Pennsylvania; M.F.A., Temple (Tyler)
Wilbert Davis Jerome, Diploma, Royal Conservatory of Music, Toronto; Diploma, Curtis Institute of Music; M.Phil., Ph.D., Bryn Mawr College
Olga Moore, B.A., Roosevelt; M.A., Wisconsin; M.F.A., Art Institute of Chicago
Joseph A. Walker, B.A., Howard; M.F.A., Catholic

Associate Professor:

Roberta K. Tarbell, B.S., Cornell; M.A., Ph.D., Delaware

Assistant Professors:

Martin Dillon, B.M., Cincinnati; M.M., Oklahoma
LiQin Tan, B.A., Hunan; M.A., Concordia

Lecturer:

Rudolph Rackowski, B.A., Trenton State; M.A. in Design, Syracuse

Instructor:

Joseph Schiavo, B.A., M.A., Rutgers

The Department of Fine Arts includes major programs in art, music, and theater arts. Although combined as one department, each of the programs offers its own major with specific areas of concentration. Major requirements for each of the programs can be completed only through daytime attendance. Additional information about the programs can be obtained from the department office, second floor, Fine Arts Building.

Art 080, Art History 082

Art and Art History Programs

Course offerings in art are designed to give students a thorough understanding of the visual arts. They explore both the processes of creativity and the broad scope of historical tradition. The four-year program leading to a B.A. in art offers students a variety of concentrations that include art history, electronic and media arts, museum studies, painting, sculpture, illustration, and teacher certification. Students also may design their own interdisciplinary majors to prepare for careers in art therapy, medical illustration, advertising, and other fields. Students concentrating in studio art are exposed to a variety of media, with particular emphasis on drawing, composition, and color theory. After rigorous training, degree candidates are expected to participate in a senior thesis exhibition prior to graduation.

Major Requirements

Art majors must satisfactorily complete a concentration in either art history, electronic arts, or studio art. Credit toward one of these concentrations is given for all art courses in which the student receives a grade of C or better. Studio art and electronic arts students may not use art history credits to satisfy category 8 of the general curricular requirements. Art history students may not use studio art credits or electronic arts credits for the same purpose.

Art History Concentration

The art history concentration offers diverse courses designed to prepare majors for graduate work in art history and careers in museums, galleries, and arts administration.

Core Curriculum for Art History Concentration:

50:080:101 Introduction to Studio Art (3) or 50:080:102 Two-Dimensional Design Fundamentals (3)
50:082:101,102 Introduction to Art History (R) (3,3)

In addition, students concentrating in art history must complete a minimum of 33 credits as follows:

- 3 credits from the offerings in Near Eastern, Egyptian, Greek, Roman, and medieval art
- 9 credits in Renaissance and baroque art
- 9 credits in modern (nineteenth and twentieth centuries) and American art
- 3 credits in non-Western art
- 9 elective credits selected from all courses offered in art history at the 200 level or above
- 3 credits: Individual Study in Art History (50:082:491 or 492)

Students intending to pursue graduate study in art history should take the equivalent of two years of college-level courses in a foreign language, usually French or German.

Because works of art express the ideas of the culture that produces them, the study of art history involves a knowledge of religion, literature, history, and philosophy. Students should select courses in literature and history that treat the time period of their special interest. The following courses in philosophy and religion are highly recommended:

50:730:361 Philosophy of Art (3)
50:840:103 Introduction to Religion (R) (3)
50:840:110 Introduction to the Bible and Its Interpreters (3)
50:840:212 Jews, Christians, and Muslims (3)
50:840:325 Myth and Symbol (3)

Electronic Arts Concentrations

Art majors concentrating in electronic arts must complete the following core curriculum plus one of the emphasis areas. A minimum of 15 studio art/electronic arts credits must be taken at Rutgers.

Core Curriculum for Electronic Arts Concentration:

50:080:102 Two-Dimensional Design Fundamentals (3)
50:080:103 Three-Dimensional Design Fundamentals (3)
50:080:213 Introduction to Computer Graphics (2)
50:080:221 Drawing (3)
50:080:229 Drawing Workshop (2)
50:080:351 Painting (3)
50:080:395 Artist in Society (BA 1-3)
50:082:101,102 Introduction to Art History (R) (3,3)
Additional credits in art history (3)

Animation Emphasis:

2 credits in Introduction to Computer Animation
3 credits in film making or web design
2 credits in graphic workshop production techniques
3 credits in graphic design
6 credits in computer animation

3 credits in advanced computer studio or advanced animation
Thesis exhibition
Computer graphics internship strongly suggested

Design Emphasis:

3 credits in photography
2 credits in graphic workshop production techniques
3 credits in graphic design
6 credits in communication design
6 credits in computer graphics, animation, film making, or web design (300 or 400 level)
Thesis exhibition
Graphic design or computer graphics internship strongly recommended

Because of the introduction of new technologies in art and the ever-changing demands placed on today's artists and designers, students are strongly urged to develop a minor program in a second department. Introductory business courses are strongly recommended for those students choosing the electronic arts concentration. Art majors also may take courses in museum studies.

Studio Art Concentrations

Art majors concentrating in studio art must complete the following core curriculum plus one of the emphasis areas. Note: A minimum of 15 studio art / electronic arts credits must be taken at Rutgers.

Core Curriculum for Studio Art Concentration:

50:080:102 Two-Dimensional Design Fundamentals (3)
50:080:103 Three-Dimensional Design Fundamentals (3)
50:080:213 Introduction to Computer Graphics (2)
50:080:221 Drawing (3)
50:080:229 Drawing Workshop (2)
50:080:351 Painting (3)
50:080:395 Artist in Society (BA 1-3)
50:082:101,102 Introduction to Art History (R) (3,3)
Additional credits in art history (3)

Illustration Emphasis:

3 credits in photography
3 credits in anatomical or figure drawing (in addition to core curriculum)
3 additional credits in painting
3 credits in graphic design
3 credits in computer illustration or advanced computer studio
3 credits in special studio projects (illustration)
Thesis exhibition

Painting Emphasis:

3 additional credits in painting
3 credits in sculpture
3 credits in photography
3 credits in advanced painting
6 credits in any 300- or 400-level studio course
Thesis exhibition

Sculpture Emphasis:

6 credits in sculpture
3 credits in photography or ceramics
3 credits in advanced sculpture
6 credits in any 300- or 400-level studio course
Thesis exhibition

Minor Requirements

Students who wish to minor in art should consult with the chairperson of the department. A minor in art consists of a minimum of 18 credits of course work in the department, of which at least 6 credits must be above the 100 level and at least 6 credits at the 300 to 400 level. Minor programs in art history, museum studies, and studio art are available.

Art History Minor

The art history minor requires a total of 18 credits as follows:

50:082:101,102 Introduction to Art History (R) (3,3)
Additional upper-level art history courses, 6 credits of which must be at the 300 level or higher

Museum Studies Minor

Program Director: Roberta K. Tarbell

The museum studies minor is for students majoring in art, art history, anthropology, history, English, education, or other disciplines who are considering careers in the museum field or in education. The following courses totaling 18 credits are required:

50:082:101 or 102 or 103 Introduction to Art History I or II or Art Appreciation (3)
50:082:205 Museum Operations, Exhibition Techniques, and Education Practicum (3)
50:082:401 Reading Course: Survey of the Literature Pertinent to Museum Work (3)
50:082:408 Individual Study in Museology (3 for one term or 6 for 2 terms)
50:082:409 Museum Internship (3 for one term or 6 for 2 terms)

Students complete either 408 or 409 for two terms and the other for one term.

The Stedman Art Gallery on campus is a resource for students interested in gaining experience in art education and curatorial work.

Studio Art Minor

The studio art minor requires 18 credits as follows:

50:080:101 Introduction to Studio Art (3) or 50:080:102 Two-Dimensional Design Fundamentals (3)
50:080:103 Three-Dimensional Design Fundamentals (3)
50:080:221 Drawing (3) or two drawing workshops
50:082:101 or 102 Introduction to Art History (R) (3)
6 credits in art courses at the 300 level or higher

Student-Proposed Majors

Students have the option of planning their own program that combines courses from two different major programs. Approval of such a program by the departments concerned and the Courses of Study Committee is mandatory. This option has been used by students to prepare for a variety of careers, such as art therapy, medical illustration, theater design, and arts administration, and in preparation for continued education, including law school. The following are some possible student-designed major programs and their corresponding goal orientations:

Biology / Art: medical illustrator
Business / Art: art consultant, corporate art director, free-lance graphic designer, arts grant specialist, advertising, marketing

Computer Science / Art: video artist, computer graphics designer, chart display artist
English / Art: book illustrator, advertising, marketing, photojournalist
Psychology / Art: art therapist
Theater Arts / Art: set and costume design (credits of which must be at the 300 level or higher)

Departmental Honors Program

Students who desire honors in art should make arrangements with a faculty sponsor during their junior year and should submit a two-page proposal to the department faculty. Upon approval, students may enroll in honors courses during their senior year. In recognition of satisfactory completion of the departmental honors program, the registrar will note on the student's permanent record "Honors in Art" or "Honors in Art History."

To quality for honors in studio art, electronic arts, or art history, students must fulfill all departmental requirements plus the following:

1. Maintain a 3.5 grade-point average in the courses required for the art major and a 3.2 cumulative grade-point average in the entire undergraduate program.
2. Complete a 6-credit honors program (usually in the senior year) during which they must complete a senior project. Studio art and electronic arts students must enroll in two sequential 3-credit courses, Honors in Art, and complete a senior project approved by a faculty adviser. Art history students must enroll in two sequential 3-credit courses, Honors in Art History. The senior project consists of either an extensive writing assignment on an approved topic or a museum studies project.

Teacher Certification in Art

Students seeking teacher certification in art must complete the following:

Art Education Emphasis

50:080:102 Two-Dimensional Design Fundamentals (3)
50:080:103 Three-Dimensional Design Fundamentals (3)
50:080:213 Introduction to Computer Graphics (2)
50:080:221 Drawing (3)
50:080:351 Painting (3)
50:080:395 Artist in Society (BA 1-3)
50:082:101,102 Introduction to Art History (R) (3,3)
50:300:354 Materials and Methods in Art (3)
Additional art history course in non-Western art (3)
Photography (3)
Graphic Workshop Production Techniques (2)
Graphic Design (3)
Sculpture or Ceramics (3)
300- to 400-level studio course (3)

In addition, students must contact the Department of Education to satisfy state requirements for certification. Students may apply to the chairperson of the Department of Fine Arts to modify the above program in order to meet specific teaching goals.

International Studies

The Department of Fine Arts coordinates study abroad programs for many departments on the Camden campus. See International Studies 551 in this catalog.

Courses (Art 080)

Note: Not all courses will be offered every term. Please consult the Schedule of Classes for current offerings. This is especially important for the workshop studio courses because they are offered with a variety of emphases.

50:080:101. Introduction to Studio Art (R) (3)
Introduction to concepts and processes of making art. Studio projects complemented by lectures and discussions on ways of looking at art, both past and present. Emphasis on the development of each student's creative capacities and awareness.

50:080:102. Two-Dimensional Design Fundamentals (R) (3)
Prerequisite to all upper-level studio classes.
Consideration of formal elements, color theory, and principles of organization employed in two-dimensional work. Emphasis on communicating ideas through a variety of media. May be used to satisfy Materials and Methods in Art course for art education majors.

50:080:103. Three-Dimensional Design Fundamentals (R) (3)
Serves both as an introduction to sculpture and as an exploration of the three-dimensional possibilities in such other studio disciplines as graphic design, painting, and printmaking. Utilizes various techniques and media.

50:080:213. Introduction to Computer Graphics (2)
Prerequisite to all upper-level studio classes. Computer account required for registration. Lab. 3 hrs.
Introduction to the use of the computer as a tool for art and design used in the graphic arts and communication industries. Fundamentals of the Macintosh environment and system commands. Illustration, 2-D paint, and object-oriented programs. Hands-on experience with the Macintosh computer, laser scanners, and printers. Methods for developing graphic presentations and intangibles that provide originality and variety in a creative field.

50:080:221. Drawing (R) (3)
Prerequisite to all upper-level studio classes.
Prerequisite: 50:080:102 or permission of instructor.
Drawing as independent art form and personal statement. Stresses both disciplined draftsmanship and imaginative composition and explores a variety of media.

50:080:223. Figure Drawing (3)
Prerequisite: Prior studio art experience or permission of instructor.
Concentrates on the structure of the human form. Emphasizes composition and drawing techniques.

50:080:229. Drawing Workshop (R) (2)
Prerequisite: Prior studio art experience or permission of instructor.
Covers many facets of drawing (both concepts and techniques) but with concentration on one area of study each time the course is offered. Check the Schedule of Classes to determine area of study.

50:080:233. Graphic Design Workshop (R) (BA)
Prerequisite: Prior studio art experience or permission of instructor. Open to nonart majors unless otherwise specified.
A studio workshop in various aspects of the graphic design field such as typography, packaging, and illustration. Covers one area that changes from term to term.

50:080:253. Painting Workshop (R) (BA)
Prerequisite: Prior studio art experience or permission of instructor.
Explores a variety of problems and techniques, but with emphasis on one area each time the course is offered. Check the Schedule of Classes to determine area of study.

50:080:261. Photography (R) (3)
Prerequisite: 50:080:101 or 102 or permission of instructor. Students are expected to provide their own cameras and some basic materials.
Uses camera and photographic processes as vehicles for artistic expression and perceptual discovery. Explores traditional and experimental use of photographic processes.
Lab. fee.

50:080:263. Photography Workshop (R) (BA)
Prerequisites: 50:080:101 or 102 or 221 and some knowledge of cameras.
Use of the medium of photography to explore a variety of creative problems. A different area is covered each time the course is offered. Check the Schedule of Classes to determine area of study. Lab. fee.

50:080:279. Introduction to Computer Animation (2)
Pre- or corequisite: 50:080:213.
Prepares students for advanced 3-D animation by providing exercises in a variety of software programs.

50:080:283. Sculpture Workshop (R) (BA)
Prerequisite: Prior studio experience or permission of instructor.
Provides fundamental concepts and techniques in a variety of sculptural media, but emphasis is on one particular medium each time the course is offered. Discusses historical and aesthetic aspects of the medium and techniques. Check the Schedule of Classesto determine area of study.

50:080:330. Graphic Workshop—Production Techniques (2)
Technical skill building in computer applications for desktop publishing and print media.

50:080:331. Graphic Design (R) (3)
Prerequisites: 50:080:102 and 221 or junior standing or permission of instructor.
An introduction to various aspects of graphic communications covering design concepts, typography, and composition. Deals with a variety of graphic design topics and explores various methods and techniques of conventional and experimental two-dimensional and three-dimensional graphics. Emphasizes logical clarity, research, and design aesthetics.

50:080:340. Introduction to Film Making (3)
Prerequisite: 50:080:213 or permission of instructor.
Exploration and survey of a variety of methods of film making using traditional videotaping equipment and Macintosh computer nonlinear editing and assembly to produce a range of films, from creative short subjects to films dedicated to specific promotional purposes.

50:080:347. Environmental Design (3)
Prerequisite: 50:080:102 or permission of instructor.
An exploration of two- and three-dimensional design, relating to the environment. Projects include murals, wall graphics, and redesigning exterior sites.

50:080:351. Painting (R) (3)
Prerequisites: 50:080:102 and 221 or permission of instructor.
Painting concepts and a variety of media. Work from the figure, "environments," and invented forms. Emphasis on transforming intellectual and visual ideas into significant plastic forms.

50:080:381. Sculpture (R) (3)
Prerequisites: 50:080:103 and 221 or permission of instructor.
Experimental studies in traditional and new materials to explore spatial relationships. Emphasis on integrating aesthetic considerations with technical application and study of the human figure.

50:080:391. Individual Study in Studio (R) (BA)
Prerequisites: One course in advanced studio work and permission of instructor.
Senior art major expected to further investigate the chosen area of emphasis; projects and research initiated by the student and approved by the faculty. Guidance and criticism offered by department staff, with occasional critiques by outside artists.

50:080:395. Artist in Society (BA 1-3)
Prerequisite: Junior or senior art major standing or permission of instructor.
Explores the artist's role historically and in today's world. Comparisons concerning the artist's function in society made through readings, discussion, and public lecture.

50:080:437. Communications Design (R) (3)
Prerequisite: 50:080:331.
Explores visual solutions that convey information regarding products, services, and ideas. Investigates larger contexts for such visuals as packaging, corporate identity, publication, and signs. Emphasis on completion of a professional portfolio of highly finished comps.

50:080:445. Design for the World Wide Web (3)
Prerequisites: 50:080:213, 331, or permission of instructor.
Graphic design and production techniques for web publishing. Applications such as PageMill, DreamWeaver, and others used to create dynamic interactive web pages and sites. Building upon basic design skills, the student creates a variety of assignments. Emphasis on clarity of visual communication in this new medium.

50:080:446. Advanced Computer Studio (R) (3)
Prerequisites: 50:080:213, 331, or equivalent.
Project-oriented course. Develop computer-generated graphics and animation for specific purposes, including visual realizations of faculty research, promotional design and video for the campus, and other related projects.

50:080:447. Experiments in Film Making (3)
Prerequisite: 50:080:340.
Advanced study and exploration of a variety of methods of film making using traditional videotape and digital video equipment, with Macintosh computer nonlinear editing software. The student produces a range of films, from creative short subjects to films dedicated to specific promotional purposes. Additionally, the laboratory portion of the class makes use of the animation studio and its Unix-based computer editing equipment.

50:080:451. Advanced Painting (R) (3)
Prerequisites: 50:080:102, 221, and 351, or permission of instructor.
Painting with emphasis on developing an individual point of view and personal means of expression. Experimentation encouraged but attention also given to further knowledge of materials, techniques, and theories of painting. Explores both traditional and contemporary stylistic approaches.

50:080:481. Advanced Sculpture (R) (3)
Prerequisites: 50:080:101 or 102, one course in sculpture, and one course in drawing; or permission of instructor.
Concentrated study of particular modes of expression and techniques designed to allow the advanced student to prepare for graduate work or other field specialization.

50:080:484. Special Studio Projects (BA)
Prerequisite: Permission of instructor.
Working closely with a studio faculty adviser, the student develops and executes a specified series of art works.

50:080:485. Computer Graphics (R) (3)
Prerequisites: 50:080:102 and 221 or permission of instructor.
Introduction to advanced computer graphics technology including computer illustration, painting, and graphic design with some video interaction.

50:080:486. Computer Animation (R) (3)
Prerequisite: 6 credits in 50:080:485.
Using a variety of 3-D animation software, including Soft Image, students learn modeling, lighting, movement, and texture techniques.

50:080:487. Advanced Computer Animation (R) (3)
Prerequisite: 6 credits in 50:080:486.
Provides advanced exercises in character animation and integrated film making skills.

50:080:491,492. STUDIO INTERNSHIP (BA,BA)
Prerequisites: Senior standing, high-quality work in portfolio. Credit dependent on hours worked. Coordinated by the art department.
An internship with an agency, design studio, or computer graphics company. The student qualifies by presenting a portfolio and performs those duties required by the studio; learns new concepts and techniques through in-house preparation and execution of artwork (forty hours of internship per credit.)

50:080:497-498. HONORS IN ART (3,3)
Candidates for honors in art must, at the end of their junior year, have a cumulative grade-point average of 3.0 or better and an average of 3.5 or better in the major.
Independent and advanced studio project under the supervision of a professor of art.

Courses (Art History 082)

50:082:101,102. INTRODUCTION TO ART HISTORY (R) (3,3)
Supplemented by museum trips.
A chronological survey of the visual arts as an expression of the mind and culture of Western civilization. First term: ancient to 1400 A.D., the beginning of the Renaissance. Second term: early Renaissance to the present.

50:082:103. ART APPRECIATION (R) (3)
For nonart history majors who wish to satisfy the general curricular requirement in fine arts.
Presents an overview of the great landmarks of art from classical Greece to the twentieth century. Supplemented by museum trips.

50:082:105. ART OF THE WORLD (3)
A multicultural course that examines the art and architecture of a variety of cultures throughout the world in a social, historic, and perceptual concept.

50:082:109. ART AND ARCHAEOLOGY OF THE MEDITERRANEAN WORLD (2)
Introduction to the history, concepts, and methods of archaeology, with particular emphasis on the archaeology of the Mediterranean.

50:082:205. MUSEUM OPERATIONS, EXHIBITION TECHNIQUES, AND EDUCATION PRACTICUM (3)
Prerequisite: 50:082:101 or 102 or 103 or permission of the instructor. Course requires nine hours working in the gallery each week. This course cannot be taken to fulfill art history requirements, but can be taken as a general art elective.
Basic course in museum operations through practical experience in exhibition planning and installation; object maintenance, interpretation, and registration; visitor orientation and public information; development and presentation of education materials for K–12 as well as college classes; grant writing; and marketing techniques. Conducted through participation with staff members in the actual operation of the Stedman Gallery.

50:082:237. ART OF THE NINETEENTH CENTURY (3)
Significant nineteenth-century European movements including neoclassicism, romanticism, realism, impressionism, post-impressionism, symbolism, and the Pre-Raphaelites.

50:082:251. MODERN ARCHITECTURE (3)
Development of international modern architecture with an emphasis on American and European architecture and planning and on major architects; technological advances; and sociological, political, and cultural causes in the changes of style and form of modern buildings. Time periods from 1750 to the present may vary in different terms.

50:082:285. ART OF AFRICA (3)
Prerequisites: 50:082:101,102 or permission of instructor.
Explores the classical traditions of sculpture and related arts of the peoples of Africa. Analyzes and interprets art in relation to its ceremonial and cultural significance and the impact of African forms on Western art.

50:082:302. INTRODUCTION TO CONTEMPORARY ART (3)
(Formerly 50:082:212)
Review of visual art in the first half of the twentieth century. Art in America and Europe since 1945.

50:082:305. WOMEN AND ART (3)
A thematic and chronological survey of women as artists and as images in works of art. Historical periods vary each term.

50:082:310. ART OF EGYPT (3)
Prerequisite: 50:082:101 or permission of instructor.
The art of ancient Egypt from the Old Kingdom through the Ptolemaic periods. Examination of the art of contemporary cultures in Mesopotamia.

50:082:311. ROMAN ART (3)
Prerequisite: 50:082:101 or permission of instructor.
Art of the Roman Republic and Empire from the Etruscan background through the reign of Constantine; emphasis on the city of Rome.

50:082:320. ART OF THE MIDDLE AGES (3)
Prerequisite: 50:082:101 or permission of instructor.
Art of the Middle Ages in Europe from fourth to fourteenth centuries. Includes examination of the art of the Byzantine, Carolingian, Ottonian, Romanesque, and Gothic periods.

50:082:329. PRE-COLUMBIAN AND MESO-AMERICAN ART (3)
Prerequisites: 50:082:101,102 or 103 or permission of instructor.
Art and archaeology of pre-Columbian North and South America; major contributions of the Mexican, Mayan, Andean, and American Indian.

50:082:331. ITALIAN RENAISSANCE ART (3)
Prerequisites: 50:082:101,102 or permission of instructor.
The evaluation of Italian painting from Giotto in the beginning of the fourteenth century through the High Renaissance, including the Venetian school in the sixteenth century.

50:082:332. AFRICAN-AMERICAN ART (3)
Prerequisite: 50:082:101,102 or 103 or permission of instructor.
The history of the art of Africans in the Americas.

50:082:340. SEVENTEENTH- AND EIGHTEENTH-CENTURY EUROPEAN ART (3)
Prerequisites: 50:082:101,102 or permission of instructor.
An analysis of European art of the baroque and rococo years through the exploration of the works of principal artists of the periods covered.

50:082:342. GREEK ART (3)
Prerequisite: 50:082:101 or permission of instructor.
The art of ancient Greece from the Bronze Age through the Hellenistic period. Focus on the art of the sixth and fifth centuries B.C.—the golden age of Greek art.

50:082:349. HISTORY OF SCULPTURE: BAROQUE TO MODERN (3)
Prerequisites: 50:082:101,102 or permission of instructor.
History of sculpture from 1600 to present. Issues of patronage as well as stylistic development considered. Emphasis placed on the transition from the nineteenth to the twentieth century and the "pioneers of early modern sculpture."

50:082:351. EUROPEAN PAINTING: 1780 TO 1880 (3)
Prerequisites: 50:082:101,102 or permission of instructor.
The development of European painting from neoclassicism to impressionism. Emphasis on French painting of the period but significant movements in England and Germany also analyzed. One field trip.

50:082:352. EUROPEAN PAINTING: 1880 TO 1940 (3)
Prerequisites: 50:082:101,102 or permission of instructor.
An analysis of a wide range of avant-garde movements from postimpressionism to surrealism. Treats significant trends in painting in France, Italy, Holland, and Russia. One field trip.

50:082:360. Survey of Japanese Art (3)
Japanese art and its historical, religious, and social contexts. In addition to painting, sculpture, and architecture, ceramics, printmaking, metalwork, and textile arts considered.

50:082:361. Art of Film (3)
Historical aspects of film making that pertain to fine art and production art techniques. Topics include cinematography, set design, editing, and art production. Relationship of art production to overall cinematic results.

50:082:362. Special Topics in Cinematography (3)
Credits by arrangement.
Special studies in the history of cinematography. Deals with different subjects changing from year to year, such as contemporary film and film noir.

50:082:367. American Art: 1650–1900 (3)
Prerequisite: 50:082:102 or 103 or permission of instructor.
American painting, sculpture, and architecture from colonial times to 1900. The importation of European styles and the development of an American art.

50:082:368. Twentieth-Century American Art (3)
Prerequisite: 50:082:102 or 103 or permission of instructor.
Includes study of major art movements in the United States, from academic classicism to contemporary styles and theories.

50:082:380. Art in an Age of Mechanized and Electronic Media (3)
The history of twentieth-century art dependent on mechanical or electronic technology including kinetic, digital, video, animated, and interactive works of art.

50:082:382. History of Design and Photography (3)
History of European and American design and photography styles, including nineteenth-century English and French movements as well as major twentieth-century styles including Art Nouveau, Art Deco, and Bauhaus. Reviews the history of graphic design and typography and explores influences of previous movements on contemporary design.

50:082:395. Sculpture of the Twentieth Century (3)
Prerequisite: 50:082:102 or permission of instructor.
Significant developments in twentieth-century sculpture, including constructivism, kinetic sculpture, primary structures, performance, and environmental works. One field trip.

50:082:401. Reading Course: Survey of the Literature Pertinent to Museum Work (3)
Prerequisite: 50:082:101 or 102 or 103 or permission of instructor.
Survey of current and standard literature on all aspects of museum work. Topics include museum organization and administration; collection theory and ethics; registration, research, preservation, conservation, and storage of collections; exhibition design and installation; and theories and techniques of museum education for various constituents.

50:082:408. Individual Study in Museology (3)
Prerequisites: 50:082:401, junior or senior standing, and permission of museum studies instructor and art history professor.
Advanced students conduct a program of research under the direction of the instructor. A substantial paper demonstrating an understanding of museum methods required.

50:082:409. Museum Internship (3)
Requires ten to twelve hours per week and is monitored by museum studies instructor and art history professor.
An internship at a local museum in area of student's major.

50:082:485. Latin American Art and Culture (3)
Multicultural course. Credit not given for this course and 50:070:485 or 486.
Native-American, colonial, and modern art and architecture of Latin America in their cultural context. Material culture traced either thematically or chronologically. Topics change from year to year.

50:082:487. Special Topics in Art History (2)
(Formerly 50:082:395)
An intensive investigation of a specific movement, style, or major artist. Topic changes each time the course is offered. Check the Schedule of Classes to determine area of study.

50:082:491,492. Individual Study in Art History (R) (BA,BA)
Prerequisites: Junior or senior standing, written permission of instructor and student's adviser. At least 3 credits of work in individual study are required of all art history majors.
A course for advanced students in which a program of research is conducted by the student under the direction of the instructor. A significant list of readings in art history methods and a substantial paper required.

50:082:497-498. Honors in Art History (3,3)
Candidates for honors in art history must, at the end of their junior year, have a cumulative grade-point average of 3.0 or better and an average of 3.5 or better in the major. Both terms must be completed in order to receive credit.
Independent research on a specific topic leading to an honors thesis written under the supervision of a professor of art history.

Music 700, Applied Music 701

Major requirements can be completed only through daytime attendance.

Course offerings in music are designed to give each student an integrated approach to theory, history, and performance—experience in all three areas being essential to the understanding of music as an artistic and intellectual achievement. Theory courses allow the student to work with musical material, to understand modes of organization in composition, and to employ methods of musical analysis. History courses introduce students to methods of studying the development of musical genres and the relationship of music to the other arts and areas of thought. Students are encouraged to develop performing skills through private study and through participation in the College Choir and Repertory Singers. Ongoing concerts featuring renowned musicians provide an opportunity for students to be exposed to a rich variety of musical styles.

Major Requirements

50:700:125 Introduction to Music Theory (3)
(or credit by examination)
50:700:161,162 Basic Musicianship I,II (2,2)
50:700:202 Introduction to Music (3)
(or credit by examination)
50:700:203 Introduction to World Music (3)
50:700:225,226 Music Theory I,II (3,3)
50:700:292,293 History of Music I,II (3,3)
50:700:321 Counterpoint (3)
50:700:325 Music Theory III (3)
50:701:161,162,261,262 Piano (1,1,1,1) and / or pass keyboard proficiency examination
50:701:339 or 340 Repertory Singers (3) or 50:701:139 or 140 Rutgers Choir (3)

The music program strongly recommends a minimum of one term of a foreign language, preferably 50:470:101 German with one each of 50:470:103 and 104 or Italian
Attendance at ten college recitals or concerts each academic year strongly recommended

Transfer students should consult with the fine arts department prior to enrollment.

Minor Requirements

50:700:125 Introduction to Music Theory (3)
50:700:161 Basic Musicianship I (2)
50:700:202,203 Introduction to Music (3) or Introduction to World Music (3)
50:700:225,226 Music Theory I,II (3,3)
6 credits of history of music
Attendance at five college recitals or concerts each academic year strongly recommended

Teacher Certification in Music

Students seeking teacher certification in music must complete the following requirements for music. For details regarding admission to the teacher education program and its requirements, students should consult both their department chair and the chairperson of the education department.

50:300:443 Materials and Methods of Teaching Music (3)
50:700:161,162 Basic Musicianship I,II (2,2)
50:700:202 Introduction to Music (3) (or credit by examination)
50:700:203 Introduction to World Music (3)
50:700:225,226 Music Theory I,II (3,3)
50:700:292 History of Music I (3)
50:701:161,162, 261,262 Piano (1,1,1,1) and / or pass keyboard proficiency examination
50:701:339 or 340 Repertory Singers (3)
50:701:478 Instrumental Methods: Strings (3)
50:701:488 Instrumental Methods: Woodwinds (3)
50:701:494 Instrumental Methods: Brass (3)
Attendance at ten college recitals or concerts each academic year strongly recommended

Musical Theater Emphasis

50:203:123 Modern Dance I (2)
50:203:124 Modern Dance II (2)
50:203:249 Ballet I (2)
50:700:125 Introduction to Music Theory (3)
50:700:161,162 Basic Musicianship I,II (2,2)
50:700:202 Introduction to Music (3)
50:701:161,162, 261,262 Piano (1,1,1,1) and / or pass keyboard proficiency examination
50:701:169,170, 269,270, 369,370 Voice Performance Study (1,1,1,1,1,1)
50:701:347,348 Ensemble (3,3)
50:965:271 Acting I (3)
50:965:301 Performance (3)
50:965:357,358 Special Topics in Theater Arts (3,3)

Music History

The music program provides many live in-class performances for the history series in an effort to establish insight into the active role of the artist in performance.

Performance Studies

The aim of the performance studies division is to present music as a liberal art, for its value as literature and as a record of one aspect of human achievement. Students are strongly encouraged to acquire and improve performing techniques as a necessary means of cultivating the art. The department offers instruction in instrumental and vocal music with a distinguished faculty of artist associates and welcomes students at all levels, including beginners. Note that an additional fee for private instruction is required.

Courses (Music 700)

Note: Courses in music theory include 50:700:125, 161,162, 225,226, 321, 325, and 499.

50:700:125. Introduction to Music Theory (3)
Intended primarily for nonmajors and minors.
An introduction to the elements of tonal music. Provides students with an understanding of rhythm, pitch, keyboard, scales, key signatures, intervals, and triads.

50:700:161,162. Basic Musicianship I,II (2,2)
Provides intensive work in sight-singing, dictation of melody, rhythm, and harmony; score reading; and keyboard harmony.

50:700:201. Masterpieces of Music (R) (3)
No previous musical experience necessary.
A survey of the masterworks of Western music.

50:700:202. Introduction to Music (R) (3)
No previous musical experience necessary.
An approach toward music appreciation that emphasizes the cultural influences that have determined the varied musical languages throughout the world.

50:700:203. Introduction to World Music (3)
Appraises the art of music and develops basic concepts and listening perception of music outside of Western culture. Polynesia, East Asia, India, etc. Elements, forms, and styles of music.

50:700:225. Music Theory I (3)
Prerequisite: 50:700:125.
Examines the elements of eighteenth- and nineteenth-century harmonic practices, including part-writing in three and four parts, and harmonic analysis of works.

50:700:226. Music Theory II (3)
Prerequisite: 50:700:225.
A continuation of Music Theory I with emphasis on secondary functions, modulation, linear chords, harmonic analysis, form, and creative writing.

50:700:271. Computer Applications in Music (3)
Prerequisite: 50:700:125 or 225. Preference given to major and minors. Limited enrollment.
Introduction to the creative use of computers and synthesizers. Provides an understanding of compositional techniques and MIDI applications, including sequencing, editing, and notational software.

50:700:292. History of Music I (3)
Intended for music majors and minors.
Styles and forms of Western music from antiquity to the eighteenth century (to 1750).

50:700:293. HISTORY OF MUSIC II (3)
Intended for music majors and minors.
Styles and forms from the late nineteenth century to the present.

50:700:309. AMERICAN MUSIC (3)
Prerequisite: 50:700:125.
Survey of music in the United States from the time of the earliest settlers to the present, including Shaker hymns, Civil War tunes, the establishment of a distinctive American style, the beginnings of jazz, and current experimental styles.

50:700:320. WOLFGANG AMADEUS MOZART (3)
A study of the life of the great eighteenth-century master with an emphasis on his most important works, including representative selections from the early and late symphonies, piano sonatas, concertos, string quartets, and operas.

50:700:321. COUNTERPOINT (3)
A detailed survey of sixteenth- and eighteenth-century contrapuntal practices, including extensive writing in species counterpoint, two-part invention, canon, and fugue.

50:700:325. MUSIC THEORY III (3)
Prerequisite: 50:700:226.
An introduction to posttonal music. Provides the student with a basic analytic technique for the study of twentieth-century practices, including atonal and twelve-tone works.

50:700:337. OPERA (3)
A critical survey of the continuing tradition of opera emphasizing the relationship of music and drama through selected works of varied composers.

50:700:339. JOHANN SEBASTIAN BACH (3)
Prerequisite: 50:700:125.
A study of the life of the great baroque master with an emphasis on his most important works, including the Brandenburg Concertos, the Well-Tempered Clavichord Keyboard Suites, Goldberg Variations, and several of the major works in sacred music.

50:700:340. LUDWIG VAN BEETHOVEN (3)
Prerequisite: 50:700:125.
A study of the life of this great transitionary composer with an emphasis on his most important works, including representative selections of the symphonies, string quartets, piano sonatas, and concertos.

50:700:348,349. JAZZ, ROCK, FOLK, AND POP (3,3)
No previous musical experience necessary.
A survey of contemporary trends in popular music. Outlines the basic features of each type, with examples drawn from outstanding performing groups of the past and present.

50:700:385,386. INTRODUCTION TO MUSICAL COMPOSITION (3,3)
Prerequisites: 50:700:225,226, 325.
Introduction to elementary problems of composition. First term: smaller genres using the keyboard and small chamber groups. Second term: intensive concentration on problems in orchestration by increasing the dimensions of compositions to include larger chamber ensembles and small orchestral forces.

50:700:498. SPECIAL TOPICS IN MUSIC (3)
A variety of topics, such as Music in Film, is offered on a rotating basis.

50:700:499. INDIVIDUAL STUDY IN MUSIC (BA)
Independent study, guided by a member of the faculty, intended to provide an opportunity to investigate areas not covered in regular courses of instruction.

Courses (Applied Music 701)

50:701:347,348. REPERTORY SINGERS (3,3)
A small performing group of select singers who study and perform smaller masterpieces from the Renaissance to the present.

50:701:349,350. COLLEGE CHOIR (3,3)
Study and performance of choral masterworks.

50:701:161,162,261,262,361,362,461,462. PIANO (1 EACH)
50:701:165,166,265,266,365,366,465,466. ORGAN (1 EACH)
50:701:169,170,269,270,369,370,469,470. VOICE (1 EACH)
50:701:171,172,271,272,371,372,471,472. PERCUSSION (1 EACH)
50:701:173,174,273,274,373,374,473,474. VIOLIN (1 EACH)
50:701:175,176,275,276,375,376,475,476. CLASSICAL GUITAR (1 EACH)
50:701:177,178,277,278,377,378,477. VIOLA (1 EACH)
50:701:181,182,281,282,381,382,481,482. VIOLONCELLO (1 EACH)
50:701:183,184,283,284,383,384,483,484. DOUBLE BASS (1 EACH)
50:701:185,186,285,286,385,386,485,486. FLUTE (1 EACH)
50:701:187,188,287,288,387,388,487. OBOE (1 EACH)
50:701:189,190,289,290,389,390,489,490. CLARINET (1 EACH)
50:701:191,192,291,292,391,392,491,492. BASSOON (1 EACH)
50:701:193,194,293,294,393,394,493. FRENCH HORN (1 EACH)
50:701:195,196,295,296,395,396,495,496. TRUMPET (1 EACH)
50:701:197,198,297,298,397,398,497,498. TROMBONE OR TUBA (1 EACH)

Theater Arts (Dance 203, Speech 950, Theater Arts 965)

Major requirements in theater arts can be completed only through daytime attendance.

Major Requirements

Theater Program

Course offerings in theater develop students in two ways. First, as an integral part of a liberal arts education; the courses sharpen insights, perceptions, and creative thought processes in the area of dramatic thinking. Second, the theater curriculum provides students with the rigorous training of an artistic discipline. The value of this process lies in the direct expression of one's self as an instrument—emotional, physical, and vocal. Students in the theater program realize their education in a fully personal sense through theoretical, laboratory, and experiential work. As a result of this twofold approach, students majoring in theater arts are prepared with the broadest possible base for continued artistic development and future career opportunities. For the Musical Theater Emphasis, see "Music."

Students majoring in theater arts must earn a grade of C or better in the following courses:

50:965:201 Introduction to Theater Arts (3)
50:965:241-242 Introduction to Technical Theater (3,3)
50:965:243-244 Laboratory in Technical Theater (1,1)
50:965:271-272 Acting (3,3)
50:965:279,280,281 History of the Theater I,II,III (3,3,3)
(select any **two** of the three courses)

Either of the following per term (minimum of 8 credits)

50:965:301 Performance (BA)
50:965:302 Practicum in Design and Technical Theater (BA)

At least three courses from the following:

50:950:261 Fundamentals of Speech (3)
50:950:281 Public Speaking (3)
50:965:313-314 Scenic Design (3,3)
50:965:318 Playwriting (3)
50:965:321-322 Principles of Play Directing (3,3)
50:965:361 Survey of Costume History (3)
50:965:362 Costume Design (3)
50:965:371 Intermediate Acting (3)
50:965:372 Scene Study (3)
50:965:382 Lighting Design (3)
50:965:471 Advanced Acting (3)

One course from the following:

Modern Dance I or II, Ballet I or II, or Special Topics: African Dance, or Jazz
Senior Project (optional)

Minimum Total Credits 42

Musical Theater Emphasis

See Music.

Minor Requirements

Students minoring in theater arts must complete a minimum of 18 credits with a grade of C or better in the following courses:

50:965:201 Introduction to Theater Arts (3)
50:965:279 History of the Theater I (3)
or
50:965:280 History of the Theater II (3)
or
50:965:281 History of the Theater III (3)
Two additional theater arts courses at the 200 level
A minimum of two 300- to 400-level theater arts courses

Minors must be approved and advised by the Department of Fine Arts, theater arts program.

Teacher Certification in Theater Arts and Speech

Students seeking teacher certification in theater arts and speech must complete the requirements for the major in theater arts and speech, with the following exception: education students must substitute one acting course with 50:965:363 Methods and Issues in Theater Arts. For details regarding admission to the teacher education program and its requirements, students should consult both their department chair and the chairperson of the education department.

Courses (Dance 203)

50:203:123. Modern Dance I (2)
Movement experience designed to develop aesthetic and movement concepts, skills, and sensitivities as a basis for performance and appreciation of modern dance.

50:203:124. Modern Dance II (2)
Prerequisite: 50:203:123.
A continuation of Modern Dance I—a closer look at the styles and techniques created by Jose Limón, Martha Graham, and Thelma Hill.

50:203:249. Ballet I (2)
For beginning and intermediate students.
Concentration on developing and strengthening technique, awareness of body alignment, and ballet vocabulary.

50:203:250. Ballet II (2)
Prerequisite: 50:203:249.
A continuation of Ballet I.

Courses (Speech 950)

50:950:231. Interviewing (3)
Interviewing is an introduction to various types of interviews and techniques of interviewing. All participating students required to act as interviewers and interviewees in all situations. Employment, evaluative, journalistic, and probing interviews stressed.

50:950:261. Fundamentals of Speech (R) (3)
Effective oral communication developed through analysis and practice of basic speech skills. Control of vocal and articulatory mechanisms; study of sounds and acceptable pronunciation of standard American English; principles of delivery applied to informal public speaking, group discussion, and interpretive reading.

50:950:265-266. Special Studies in Speech (R) (3,3)
A course in a selected topic not offered in the regular curriculum. May be repeated for credit, assuming the subject matter is different. Further information, including prerequisites, if any, is contained in the Schedule of Classes.

50:950:281. Public Speaking (R) (3)
Principles of public speaking. Practice in preparation, composition, and delivery of various types of speeches.

Courses (Theater Arts 965)

50:965:201. Introduction to Theater Arts (R) (3)
Introduction to the basic techniques of script analysis and play production through lecture and practical assignments, laying the foundation for courses in acting, directing, playwriting, and all areas of theatrical design.

50:965:205. Theater on Film (R) (3)
An examination of acting, directing, and designing techniques through productions of established theater pieces that have been recorded on film and videotape.

50:965:211,212. Living Theater (R) (3,3)
Field trip fee (in lieu of textbooks) is payable at time of registration.
A "backstage view" of the theater and a brief survey of forms, history, and theories. Designed to develop an independent and individual level of criticism and analysis. Class attends a number of diverse theater productions, locally and in New York.

50:965:215. Black Theater I (3)
The black person as a dramatic character and creative artist: examination of social, cultural, and economic backgrounds; concepts and attitudes among contemporary black playwrights; producing organizations from 1600 until 1950.

50:965:216. Black Theater II (3)
Continuation of 50:965:215 with an emphasis on the time period of 1950 until the present.

50:965:241-242. Introduction to Technical Theater (R) (3,3)
Corequisite for 50:965:241: 50:965:243. Corequisite for 50:965:242: 50:965:244.
An understanding of behind-the-scenes elements of a theater production developed through theory and stage crew experiences. Subjects covered include scenery construction and painting, stage drafting, sound, stage management, and production organization.

50:965:243-244. Laboratory in Technical Theater (1,1)
Corequisite for 50:965:243: 50:965:241. Corequisite for 50:965:244: 50:965:242.

50:965:265-266. Special Studies in Theater Arts (R) (3,3)
A course in a selected topic not offered in the regular curriculum. May be repeated for credit, assuming the subject matter is different. Further information, including prerequisites, if any, is contained in the Schedule of Classes.

50:965:270. STAGE MAKEUP (R) (2)
A practicum in the theory and techniques of theatrical makeup. Includes lecture / demonstrations and hands-on practice in all the basic techniques of character makeup.

50:965:271,272. ACTING (R) (3,3)
Both courses must be completed to earn credit.
Conceptual understanding of Stanislavsky, Boleslavsky, Strassberg, and Meisner; theater games and exercises to develop vocal techniques, observation, concentration, recall, fabrication, visualization, interior monologue, application of improvisation, character creation; monologues and beginning scene study. Emphasis on character depth and movement and the application of theory learned in 50:965:271 to an actual production—a play or plays, depending on the makeup of the class—or the development of a class environmental theater project that will be mounted for public performance.

50:965:279. HISTORY OF THE THEATER I (R) (3)
The three courses in this series need not be taken in sequence.
A survey, from earliest times to Elizabethan England, with emphasis on the major periods, typical plays, important personages, and major playhouses and forms of production.

50:965:280. HISTORY OF THE THEATER II (R) (3)
A survey, from seventeenth-century France to the rise of Russian realism, with emphasis on the major periods, typical plays, important personages, and major playhouses and forms of production.

50:965:281. HISTORY OF THE THEATER III (R) (3)
A survey, from Ibsen to the present, with emphasis on the major periods, typical plays, important personages, and major playhouses and forms of production.

50:965:301. PERFORMANCE (BA)
Prerequisites: 50:965:271 and permission of instructor. May be repeated for credit up to a maximum of 6 credits.
The creation and performance of a role in a departmental major production. Credits awarded determined by complexity and size of role. A major paper required.

50:965:302. PRACTICUM IN DESIGN AND TECHNICAL THEATER (BA)
Prerequisites: 50:965:241-242 and / or other departmental courses relevant to the practicum. May be repeated for credit up to a maximum of 6 credits.
The performance of design and / or technical duties of major significance and responsibility. Credits awarded determined by the complexity and size of job assignment. A paper required.

50:965:305,306. SUMMER THEATER (3,3)
A very intensive workshop in the running of a summer theater involving all aspects of the operation, such as performance, backstage functions, box office, and publicity. Each student has opportunities to work in a variety of positions. Several plays prepared and publicly performed each session.

50:965:307. AMERICAN POPULAR ENTERTAINMENT (3)
Focuses on the major performance elements of American popular entertainment and traces the development of those elements through the major performance forms. Particular emphasis placed on the minstrel show, vaudeville, burlesque, the revues of the 1920s and 1930s, radio, silent and early sound film, and early television, as well as the popular forms of nineteenth- and twentieth-century literary drama.

50:965:308. AMERICAN MUSICAL THEATER (3)
A survey of the history and development of America's only native legitimate theatrical form. Focuses on the evolution of the musical form from its roots in nineteenth-century extravaganza and minstrel shows to the mature musicals of the 1950s and 1960s and the modern musicals of the 1970s and 1980s. Recordings, films and / or videotapes, and possible field trips supplement lectures and discussions.

50:965:313-314. SCENIC DESIGN (3,3)
Prerequisites: 50:965:241-242.
Introduction to various aspects of theatrical design. Practical assignments relating to works in progress, as well as history and theory of stage design.

50:965:318. PLAYWRITING (3)
A workshop program to develop the writer's ability to use theater as an effective and creative medium.

50:965:321-322. PRINCIPLES OF PLAY DIRECTING (3,3)
Prerequisites: 50:965:271-272. Both terms must be completed to receive credit.
Introduction to and analysis of the director's role: casting; interpreting; creating stage action; composing stage mood, rhythm, and picturization; guiding characterization; preparing a working script in conjunction with supervised direction of scenes of increasing length and complexity.

50:965:357,358. SPECIAL TOPICS IN THEATER ARTS (R) (3,3)
A course in a selected topic not offered in the regular curriculum. May be repeated for credit, assuming the subject matter is different. For further information, including prerequisites, if any, see the Schedule of Classes.

50:965:359,360. INDEPENDENT STUDY (R) (BA,BA)
Individual work with close guidance by a faculty member, on a project or in an area of research not included in the regular curriculum.

50:965:361. SURVEY OF COSTUME HISTORY (3)
A historical survey of clothing from ancient Greece to the twentieth century, concentrating on the application of fashion styles and their correlation to stage costuming, providing a background in period clothing silhouettes, the evolution of fashion, and the influence of society on clothing trends.

50:965:362. COSTUME DESIGN (3)
Introduction to the various aspects of theatrical costuming. Subjects covered are costume history, design, and construction.

50:965:363. METHODS AND ISSUES IN THEATER ARTS (3)
Provides education students with fundamental tools for teaching a variety of aspects of theater; also includes seminar topics on contemporary issues in theater.

50:965:371. INTERMEDIATE ACTING (3)
Prerequisites: 50:965:271-272.
A scene workshop in creating a role with emphasis on script breakdown, scoring a part, approaches to style, and individual problem solving.

50:965:372. SCENE STUDY (3)
Prerequisite: 50:965:371.
A workshop with emphasis on scene work and characterization.

50:965:382. LIGHTING DESIGN (3)
Prerequisite: 50:965:241.
The use of light as a basic tool of contemporary scenic design. A survey of current technology and practical experience in the design and operation of stage lighting.

50:965:471. ADVANCED ACTING (3)
Prerequisite: 50:965:371.
A workshop in conceiving characterizations in detail and creating these roles in performance.

FOREIGN LANGUAGE PROGRAM

Students who plan to pursue a combined foreign language program should consult the respective chairpersons of the language departments in which they are interested. This program can be completed only through daytime attendance.

FRENCH 420

Web Site: http://www.camden.rutgers.edu/dept-pages/french/

Major requirements in French can be completed only through daytime attendance.

Department of French

Chairperson: Louise K. Horowitz

Professors:

Louise K. Horowitz, B.A., Michigan; M.A., New York; Ph.D., CUNY
English Showalter, B.A., M.A., Ph.D., Yale

Lecturer:

Norman Ellman, A.B., Dartmouth; M.A., Pennsylvania

Major Requirements

The French major consists of a minimum of 36 credits in French, of which at least 24 must be in courses numbered 200 or higher. All courses above the intermediate level are not offered every year; students should consult their advisers about planning their programs.

A maximum of 6 credits in courses taught in English (those with numbers in the 240s, 305, 306, 360, 391, 392, or others if designated) may be taken for credit toward the French major only under the following conditions: The student must have completed French 132 or the equivalent, a substantial part of the work must be done in French, and the instructor must give permission in advance and determine what work will be done in French.

Majors in French are urged to include study abroad as part of their program. Courses in the following fields are recommended as electives: European history, history of art, music, philosophy, religion, and other literatures. It is advisable that majors in French take at least 12 credits of a second foreign language, particularly if graduate study is planned, and those planning to earn teaching certification are strongly urged to consider a double major or a minor in a second foreign language.

Minor Requirements

A minor in French consists of a minimum of 18 credits in French beyond the elementary level (50:420:101,102 or 50:420:108,109), including at least 12 credits in courses numbered 200 or higher. A maximum of 6 credits in courses taught in English (those with numbers in the 240s, 305, 306, 360, 391, 392, or others if designated) may be taken for credit toward the French minor under the same conditions as for the French major.

Departmental Honors Program

Students may qualify for graduating with honors in French by fulfilling the regular requirements for the French major and the following requirements:

1. Write a senior honors thesis of twenty-five to thirty-five pages. The topic for the thesis is arranged with an individual faculty member and written as an independent study project during two terms of the honors program while the student is enrolled in course 50:420:495 or 496 (depending upon the year and term during which the student is undertaking the study).
2. Maintain a 3.5 grade-point average in the French major and a 3.0 cumulative grade-point average in the overall undergraduate program.

Students normally inform the department of their intention of entering the honors program in the spring of the junior year.

In recognition of satisfactory completion of the honors program, the registrar will note on the student's permanent academic record Distinction in French.

Teacher Certification in French

Students seeking teacher certification in French must complete the requirements for the major in the French department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult both their department adviser and the chairperson of the education department.

Study Abroad

French majors are strongly urged to include study abroad in their program. Rutgers sponsors both a summer program and a junior-year program in France. Applicants need not be French majors, although some previous study of the language is required. Interested students should consult the department chairperson.

Courses in English

The following courses are given in English translation; all readings, lectures, classes, assignments, and tests are in English. These courses are open to all students, and they may be used to satisfy the general curricular requirements in foreign languages. Students must complete the English composition requirement before taking these courses. Students wanting to take these courses for credit toward a French major or minor must meet the conditions described under Major Requirements.

50:420:240,241. FRENCH LITERATURE IN ENGLISH TRANSLATION: SPECIAL TOPICS (3,3)

The topic is announced during preregistration.

Treats a particular theme or genre in French literature.

50:420:243. AFRICAN AND CARIBBEAN LITERATURE IN ENGLISH TRANSLATION (3)

This course may be taken as part of a major in African-American Studies.

A study of the Francophone literature of Africa and the Caribbean. Reading and discussion of selected works in prose, poetry, and drama by representative black writers of French expression in English translation. Topics include negritude, the treatment of African women in literature, racial imperialism as a topic of satire and humor, search for identity, and others.

50:420:244. WOMEN IN FRENCH LITERATURE IN ENGLISH TRANSLATION (3)

This course may be taken as part of a minor in women's studies.

A study of major French texts by and / or about women, by such writers as Balzac, Beauvoir, Colette, Mauriac, and Duras.

50:420:245. CRIME AND JUSTICE IN FRENCH LITERATURE IN ENGLISH TRANSLATION (3)

This course may be taken as part of a major in criminal justice.

Using short novels and films, the course looks at the way crime and justice have been represented in French literature from the eighteenth century until the present. Ideas covered include the bandit as folk hero, the aristocratic lawbreaker, the criminal as victim of society and as monstrous genius, crimes of passion, police in literature, the genre of the detective novel, courtrooms, and images of policing in modern society. Reading includes work by Diderot, Balzac, Hugo, Mérimée, Mauriac, Simenon, Camus, and others; selection of French films shown.

50:420:305,306. FRENCH FILM IN ENGLISH TRANSLATION (3,3)
These courses may be taken as part of a minor in film studies.
Survey of the history of French cinema from its beginnings to the present day. Analysis and interpretation of selected film masterpieces by major French filmmakers.

50:420:360. FRENCH CIVILIZATION (3)
May be given in French; language announced during preregistration.
Historical study of the people and culture of France and an examination of French values and attitudes as seen in the literature, arts, and institutions of the country.

50:420:391,392. FRENCH LITERATURE IN ENGLISH TRANSLATION: SPECIAL TOPICS (3,3)
The topic is announced during preregistration.
Treats a particular topic related to French culture or to a historical period.

Courses in the French Language

The following courses emphasize the development of linguistic skills, speaking, understanding, reading, and writing French. Students with previous study of French should consult the department chairperson about placement. These courses satisfy the general curricular requirement of one term of a foreign language or literature.

50:420:101. ELEMENTARY FRENCH I (R) (4)
Lab attendance required. For students with no knowledge of French or with one year or less of high school French.
Lays a foundation for speaking, understanding, reading, and writing the language.

50:420:102. ELEMENTARY FRENCH II (R) (4)
Prerequisite: 50:420:101 or equivalent. Lab attendance required. Not for students with more than two years of high school French.
Continuation of 50:420:101.

50:420:107. CONVERSATIONAL FRENCH (3)
Prerequisite: 50:420:102 or 109 or equivalent.
Increases the student's ability in spoken French. Pronunciation drill, conversation, short oral reports, discussion groups in French.

50:420:108. ELEMENTARY FRENCH I (R) (3)
Lab attendance required. For students with no knowledge of French or with one year or less of high school French. This course only is available at night.
Lays a foundation for speaking, understanding, reading, and writing the language.

50:420:109. ELEMENTARY FRENCH II (R) (3)
Prerequisite: 50:420:108 or equivalent. Lab attendance required. Not for students with more than two years of high school French. This course only is available at night.
Continuation of 50:420:108.

50:420:131. INTERMEDIATE FRENCH I (R) (3)
Prerequisite: 50:420:102 or 109 or equivalent, or more than two years of high school French. Lab attendance required.
Completes the study of basic French grammar, provides an introduction to reading short prose texts, with oral practice and review.

50:420:132. INTERMEDIATE FRENCH II (R) (3)
Prerequisite: 50:420:131 or equivalent.
Continuation of 50:420:131. Review of French grammar, further reading of French prose texts, with practice in speaking and writing.

50:420:203,204. FRENCH COMPOSITION AND CONVERSATION I,II (3,3)
Prerequisite: 50:420:132 or equivalent.
Constant practice in speaking and writing, with stress on developing an adequate vocabulary and idiom in the discussion of subjects related to French society and culture.

50:420:321. ADVANCED GRAMMAR AND STYLISTICS (3)
Prerequisite: 50:420:204 or permission of instructor.
A study of advanced French grammar and continued practice in writing, with emphasis on analyzing style in representative French writers. Attention to diction, phonetics, and special problems, as required.

50:420:322. ADVANCED COMPOSITION AND CONVERSATION (3)
Prerequisite: 50:420:204 or permission of instructor.
Conversation and composition in French on cultural, historical, literary, social, and other aspects of French civilization.

Courses in French Literature and Civilization

These courses are conducted in French and are open only to students with demonstrated ability in the French language. These courses satisfy the general curricular requirement of one term of a foreign language or literature.

50:420:201,202. MODERN FRENCH READINGS I,II (3,3)
Prerequisite: 50:420:132 or equivalent.
Review of grammar; oral and written practice continued. Extended reading of medium-length works and excerpts from French writers of the nineteenth and twentieth centuries, with discussion of their significance.

50:420:335. THE FRENCH NOVEL I (3)
Prerequisite: 50:420:201 or equivalent.
Reading and discussion of major French novels from the origins of the genre to the late nineteenth century, with some emphasis on the social, philosophical, and scientific thought of the periods. Includes such authors as Lafayette, Diderot, Balzac, Flaubert, and Zola.

50:420:336. THE FRENCH NOVEL II (3)
Prerequisite: 50:420:201 or equivalent.
Reading and discussion of major French novels of the twentieth century, with some emphasis on the historical and cultural background. Includes such authors as Gide, Colette, Proust, Sartre, and Camus.

50:420:341. THE FRENCH DRAMA I (3)
Prerequisite: 50:420:201 or equivalent.
Study of the French theater through reading and discussion of selected plays from the origins of the genre in the Middle Ages to the nineteenth century.

50:420:342. THE FRENCH DRAMA II (3)
Prerequisite: 50:420:201 or equivalent.
Study of the French theater through reading and discussion of selected plays from the nineteenth century to the present time.

50:420:353,354. INDIVIDUAL STUDY IN FRENCH (BA,BA)
Prerequisite: Permission of instructor.
Independent study guided by a member of the faculty, intended to provide opportunity for advanced students to investigate areas not covered in the regular curriculum.

50:420:360. FRENCH CIVILIZATION (3)
Prerequisite: 50:420:132 or equivalent when conducted in French. May be given in English; language announced during preregistration.
Historical study of the people and culture of France and an examination of French values and attitudes as seen in the literature, arts, and institutions of the country.

50:420:396. HONORS PROGRAM IN FRENCH (3)

50:420:421. FRENCH LITERATURE OF THE CLASSICAL ERA (3)
Prerequisites: 50:420:201,202 or 203,204 or permission of instructor.
Reading and analysis of major works of the classical era, including such authors as Pascal, Corneille, Racine, Molière, Lafayette, Voltaire, Diderot, and Rousseau.

50:420:441. NINETEENTH-CENTURY FRENCH LITERATURE (3)
Prerequisites: 50:420:201,202 or 203,204 or permission of instructor.
Study of the nature and background of the major literary movements of the nineteenth century: romanticism, realism, naturalism, and symbolism. Study of selected works by such authors as Hugo, Sand, Balzac, Stendhal, Baudelaire, Flaubert, Zola, Verlaine, and others.

50:420:451. TWENTIETH-CENTURY FRENCH LITERATURE (3)
Prerequisites: 50:420:201,202 or 203,204 or permission of instructor.
Study of major literary movements of the twentieth century: modernism, surrealism, existentialism, literature of the absurd, and "nouveau roman." Reading and analysis of works by such authors as Gide, Proust, Apollinaire, Valéry, Giraudoux, Colette, Sartre, Malraux, Camus, Sarraute, Ionesco, Duras, and others.

50:420:495,496. HONORS PROGRAM IN FRENCH (3,3)
Prerequisite: Permission of department chairperson.

GEOLOGY 460

Courses

50:460:101. INTRODUCTION TO THE EARTH (R) (3)
A one-term (nonlaboratory) description of the earth; processes that affect its composition and architecture; the interaction of solid earth, atmosphere, and oceans. Several field trips may be scheduled.

50:460:121. PLANET EARTH I (R) (3)
Lec. 3 hrs., lab. 3 hrs.; may include one or two Saturday field trips.
A study of the rocks and minerals that make up the earth and the internal and surface processes that produce our planet's major features.

50:460:122. PLANET EARTH II (R) (3)
Lec. 3 hrs., lab. 3 hrs.; may include one or two Saturday field trips.
The history of our planet, beginning with the origin of the solar system and tracing the development of the earth's crust, the origin of the atmosphere and oceans, and the origin and development of life.

GERMAN AND RUSSIAN (German 470, Russian 860)

Web Site: http://www.camden.rutgers.edu/dept-pages/german/

Major requirements in German can be completed only through daytime attendance.

Department of German and Russian

Chairperson: James Rushing

Professor:

Christine Cosentino-Dougherty, B.A., CUNY (City College); M.A., Ph.D.,Columbia

Associate Professors:

Carol Avins, B.A., Pennsylvania; M.Phil., Ph.D., Yale
James Rushing, B.A., M.A., Texas Tech; M.A., Ph.D., Princeton

Studying a foreign language, literature, or culture is an enriching experience and an important part of a general education. Achieving proficiency in a foreign language not only has an immense practical value in the increasingly networked world, it also opens whole new dimensions and vistas in the mind.

German is a liberal arts major with the added benefit of communicative skills in an important language. Students majoring in German develop an understanding of a foreign culture; a heightened understanding of how languages function and how they shape our minds and our world; and an ability to speak, read, write, and understand a language with 121 million speakers and a vital social and economic role in the newly unified Europe. A German major is an excellent preparation for a variety of business careers, for graduate and professional programs (including law school), for teaching careers at various levels, and for life as an educated and enlightened citizen of the world.

Major Requirements

A student majoring in German must take a minimum of 36 credits in German courses of which at least 30 credits must be in courses numbered 200 or above; no more than two courses taught in English may be counted toward the major. The student is urged to take 50:510:355 Modern Germany and to consider as electives literature courses in fields other than German.

Minor Requirements

German Minor

A minor in German consists of a minimum of 18 credits in German beyond the elementary level (50:470:101, 102), including at least 12 credits in courses numbered 200 or above; no more than one course taught in English may be counted toward the minor.

Russian Minor

Students who wish to minor in Russian should contact the Department of German and Russian for the current requirements..

Teacher Certification in German

Students seeking teacher certification in German must complete the requirements for the major in the German department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult both their department adviser and the chairperson of the education department.

Departmental Honors Program

Students may qualify for graduating with honors in German by fulfilling the regular requirements for the German major and the following requirements:

1. Write a senior honors thesis of approximately twenty-five to thirty-five pages. The topic for the thesis is developed under the advisement of an individual faculty member, and the thesis is written as an independent study project during two consecutive terms of 50:470:493,494.
2. Maintain a 3.5 grade-point average in the German major and a 3.0 overall cumulative grade-point average.

Students interested in the honors program should consult with their adviser before the beginning of their senior year.

In recognition of satisfactory completion of the honors program, the registrar will note on the student's permanent academic record Honors in German.

Study Abroad

Rutgers sponsors both a summer program and a junior-year abroad program at the University of Constance in southern Germany. Participation is not limited to German majors, though some prior study of the language is required. Interested students should contact the German department.

Courses (German 470)

50:470:101. Elementary German I (R) (4)
Two lab. periods required. For students with no knowledge of German or with less than two years of high school German.
Training in pronunciation, grammar, composition, conversation, and in reading of simple texts.

50:470:102. Elementary German II (R) (4)
Continuation of 50:470:101.

50:470:131,132. Intermediate German (3,3)
Prerequisite: 50:470:102 or equivalent as determined by placement examination.
Practice in writing and speaking German, a review of grammar, and study of significant literary texts.

50:470:261,262. German Literature in Translation (3,3)
For students with no knowledge of German.
Surveys German literature from the beginnings to modern times with a study of selected works. Taught entirely in English.

50:470:271. German Cinema in English Translation I (3)
Study of German film from the beginnings through the Nazi era, including expressionist film and other Weimar-era masterpieces. Films of Fritz Lang, Friedrich Murnau, and others. Short literary and / or historical readings may be included. Taught entirely in English.

50:470:272. German Cinema in English Translation II (3)
Study of German film since World War II. Includes a variety of cinematic responses to the war and the Nazi past, as well as films of the "New German Cinema" and others. Films of Rainer Maria Fassbinder, Volker Schlöndorff, Werner Herzog, and others. Short literary and / or historical readings may be included. Taught entirely in English.

50:470:301. Advanced German Grammar and Stylistics (3)
Prerequisite: 50:470:132 or permission of instructor.
Intensive study of the problems of idiom, diction, and style, with a review of forms and syntax.

50:470:305,306. German Conversation and Composition (3,3)
Prerequisite: 50:470:132 or equivalent as determined by placement examination.
Practice in speaking and writing German, stressing the development of an adequate vocabulary and idiom for dealing with everyday subjects and German culture.

50:470:315. Written Translations (3)
Prerequisite: 50:470:306 or permission of instructor. Preparatory course for future translators.
Emphasis on literary, scientific, and technical translations. Practice of translation skills for various professions.

50:470:336. Goethe's Faust (3)
Prerequisite: 50:470:132 or permission of instructor.
Study of Faust I and Faust II as the summation of Goethe and his lifework.

50:470:339,340. German Culture and Civilization (3,3)
Prerequisite: 50:470:132 or permission of instructor.
Social, intellectual, religious, and artistic developments within the major German-speaking areas.

50:470:386. Special Topics in German Cinema (3)
Study of a particular filmmaker, historical period, theme, or other topic in German cinema. Short literary and / or historical readings may be included. May be taught in English or German. Check Schedule of Classes for details.

50:470:401. Germany Today (3)
Prerequisite: 50:470:306 or permission of instructor. Course taught in German.
Cultural, social, and political life of Germany, with emphasis on everyday situations. Development of oral skills; preparation for travel or work abroad.

50:470:445,446. German Literature from 1750 to 1849 (3,3)
Prerequisite: 50:470:132 or permission of instructor.
The Aufklärung, Sturm und Drang, classicism, romanticism, and the beginnings of realism, as exemplified particularly in the works of Lessing, Goethe, Schiller, Novalis, Kleist, and Grillparzer.

50:470:447,448. German Literature from 1850 to the Present (3,3)
Prerequisite: 50:470:132 or permission of instructor.
Realism, naturalism, and outstanding writers of the twentieth century.

50:470:391,392. Special Topics in German Literature in English Translation (3,3)
Prerequisite: Sophomore standing or higher, with or without a knowledge of German. Open to all students, although primarily, but not exclusively, for advanced students. Course may be presented in two seven-week segments teaching more limited subjects. For further information, consult the German department.
A course in a specially selected topic, such as Franz Kafka, Bertolt Brecht, women in medieval German literature, or literature in a divided and unified Germany.

50:470:457,458. Readings in Special Fields (BA,BA)
If the needs of the student cannot be met by the regular offerings, special supervised programs arranged according to need or interest.

50:470:493,494. Individual Study in German (BA,BA)
For advanced students under exceptional circumstances. Approval of the instructor must be secured, but may not be granted if the needs of the student can be met by the regular offerings.

Honors Program in German
Course numbers for the honors program arranged by the department.

Courses (Russian 860)

50:860:101,102. Russian I (R) (4,4)
Lec. 3 hrs., lab. 2 hrs.
A course for beginners. Oral and written drills for mastery of the basic structure of the language and development of conversation and reading.

50:860:131,132. Intermediate Russian (3,3)
Prerequisite: 50:860:102 or placement test.
Review of grammar and vocabulary. Graded reading of Russian authors. Conversation and composition based on the reading of these texts.

50:860:269. Dostoevsky and Tolstoy (3)
No knowledge of Russian required.
Principal works, concentrating on Dostoevsky's The Brothers Karamazov and Tolstoy's War and Peace.

50:860:319,320. Advanced Grammar and Stylistics (3,3)
Prerequisite: 50:860:132 or placement test.
Advanced grammar review and composition. Special problems as required. Reading of Russian and Soviet authors in the original.

50:860:334. Russian Short Story in English Translation (3)
A survey of the development of the short story. Selected works in the genre from Russian writers in translation.

50:860:348. Chekhov in English Translation (3)
A survey of short stories and the major dramas.

50:860:349. Special Topics: Russian Literature / Stalin (3)
Russian culture and society; other selected topics.

50:860:350. Trip to Russia (BA)
An independent study course arranged in conjunction with the trip to Russia during spring vacation. Consult department for details.

50:860:353,354. INDIVIDUAL STUDIES IN RUSSIAN (BA,3)
Prerequisite: Permission of department.
Designed for individual projects in language and literature or special topics.

50:860:361,362. RUSSIAN LITERATURE IN ENGLISH TRANSLATION (3,3)
Open to students with no knowledge of Russian.
Survey of Russian literature from the beginnings to about 1880 (fall term) and from 1880 to modern times (spring term), with a study of selected significant works.

50:860:403,404. INTRODUCTION TO NINETEENTH-CENTURY RUSSIAN LITERATURE (3,3)
Prerequisite: 50:860:320 or permission of department.
Reading of representative nineteenth-century Russian authors in the original. Work in advanced composition and conversation included.

GREEK 490

50:490:101,102. ELEMENTARY GREEK (R) (3,3)
Introduction to study of the Greek language.

HISTORY (History 510, American History 512)

Web Site: http://history.camden.rutgers.edu

Major requirements in history can be completed either through daytime or evening attendance.

Department of History

Chairperson: Andrew Lees

Professors:

Rodney Carlisle, A.B., Harvard; M.A., Ph.D., California
Jeffery M. Dorwart, B.A., Connecticut; M.A., Ph.D., Massachusetts
Howard F. Gillette, Jr., B.A., Ph.D., Yale
Andrew Lees, B.A., Amherst College; M.A., Ph.D., Harvard
Margaret Marsh, B.A., M.A., Ph.D., Rutgers
Philip Scranton, Board of Governors Professor; B.A., M.A., Ph.D., Pennsylvania
Allen Woll, B.A., Chicago; M.A., Ph.D., Wisconsin

Associate Professors:

Laurie Bernstein, B.A., Sonoma State College; M.A., Ph.D., California
Janet Golden, B.A., M.U.A., Ph.D., Boston
Gerald Verbrugghe, A.B., Loyola; M.A., Ph.D., Princeton
Joan C. Wells, B.A., Duke; M.A., Ph.D., Northwestern

Assistant Professors:

Wayne Glasker, B.A., M.A., Ph.D., Pennsylvania
Xiao-bin Ji, B.A., Princeton; M.A., Arizona; Ph.D., Princeton
Jacob Soll, B.A., Iowa; D.E.A., Ecole des Hautes Etudes, Paris; Ph.D., Cambridge

History is the memory of mankind. The study of the past puts us in touch with the hopes, the accomplishments, and the failures of people other than ourselves. It also shows us how and why the world we inhabit today has developed over time, from the birth of civilization up to the age of high technology. It thus enlarges our awareness of the possibilities open to us now and in the future. As an intellectual discipline, it requires students to analyze evidence and to think clearly, relating particular events to general trends. Historical study is one of the essential cornerstones of a broadly based education. It provides not only knowledge and training that are worthwhile in their own right but also excellent background for many graduate programs (including the study of law), for business, and for life as an informed citizen.

Normally, students should begin with courses at the 100 or 200 level and then move on to 300- and 400-level courses. Some students may be prepared to begin at the more advanced level, but first-year students may not enroll in any advanced course without permission of the instructor; sophomores may enroll in 300-level courses but not in 400-level courses without similar permission.

Major Requirements

To major in history, students must complete 42 credits of courses. These courses must include the basic departmental surveys, 50:510:101,102 and 50:512:201,202. They also must include 50:510:299 Perspectives on History (which students must take no later than the sophomore year); and two seminars from among 50:510:481,482 or 50:512:481,482.

The remaining 21 credits should be distributed as follows: at least 12 at the 300 to 400 level; at least 6 (of the 21) in the 510 area; and at least 6 (of the 21) in the 512 area. Students who wish to major in history are advised that, because only a limited number of courses are offered in the evening, they may have to take day session and summer session history courses to complete their major requirements in a timely fashion.

Those students seeking certification in teaching should be aware that a requirement is to take a course from a selection dealing with human and intercultural relations. Several history courses may be counted for this purpose and for the history major.

Minor Requirements

To minor in history, students must complete 18 credits, 12 of which must be earned in 300- to 400-level courses.

Departmental Honors Program

The departmental honors program is intended for students who are both interested in and prepared for intensive study of a particular topic and the preparation of a research paper at least fifty pages in length. Students should have grade-point averages of 3.5 or better overall and in courses in history in order to be admitted to the program. Approval must be obtained from the chairperson and the member of the department who is to serve as the student's adviser. Students may choose either a three-term program, the first term of which would consist of a term of independent study (50:510:499 followed by 50:510:495-496), or a two-term program, which would consist simply of the 495-496 sequence. Students who choose the second option should carefully define their topics in consultation with their advisers before the start of the senior year.

Teacher Certification in Social Studies

Students seeking teacher certification in social studies must complete the requirements for the major in the history department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult both their department adviser and the chairperson of the education department.

The Richard A. Caulk Memorial Scholarship

This scholarship was established by the family and friends of Richard Caulk, a brilliant historian of Ethiopia and a member of the Rutgers–Camden Department of History from 1979 to 1983, who lost his life in the pursuit of knowledge. The scholarship amounts to a substantial portion of the cost of tuition, to be awarded each spring by the history department to a history major for use in the senior year. Financial need may be taken into account, but the primary criterion will be a demonstrated desire to strive for the intellectual excellence that Dr. Caulk displayed in his own career.

Courses (History 510)

50:510:101. Western Civilization I (R) (3)
A broad view of the society we live in and the ideals we live by, starting with the ancient Near East, Greece, and Rome and continuing through the "divine right" monarchies and the revolutions of the seventeenth century.

50:510:102. Western Civilization II (R) (3)
Continuation of 50:510:101, with emphasis on the Enlightenment, the French Revolution, industrialization, socialism, imperialism, and the wars of the twentieth century.

50:510:221. Women in Modern Europe (3)
Exploration of the role of women in Europe from the eighteenth to the twentieth centuries and the function of gender in history. Topics include women in the Enlightenment, in the French Revolution, at work, in Victorian society, in the socialist movements, in wartime, and the evolution of feminism.

50:510:231. East Asia I: East Asia before 1800 (3)
Covers the general history of China, Japan, and Korea from the beginning to 1800. Introductory course designed to help students develop a sense of what East Asia was like before the major impacts from the West during the nineteenth century. Also provides helpful background information for those interested in modern East Asia.

50:510:232. East Asia II: East Asia from 1800 to the Present (3)
Introductory survey covering broad trends and developments in East Asia in this period. Can be taken by itself or as a sequel to East Asia I. Should be of interest to those who wish to build or strengthen their general understanding of modern East Asia.

50:510:241. Precolonial Africa (3)
Surveys of the rise of early African civilizations, such as Egypt, Nubia, and Axum. Origins of slavery and trans-Saharan trade.

50:510:242. Africa since 1800 (3)
Precolonial times to the present, with emphasis on colonization, imperialism, and the process of decolonization.

50:510:255. The Rise of the City (3)
Story of Athens, Jerusalem, Rome, Paris, London, and other great cities that have transformed Western culture and society.

50:510:258. Chinese Revolutions (3)
Study of the Chinese revolutions in the twentieth century, from the 1911 revolution that overthrew the Manchu Ch'ing dynasty to the cultural revolution (1966–76) and its aftermath. Chinese history in the nineteenth and early twentieth centuries also discussed briefly as essential background information.

50:510:260. Revolution (3)
A thematic treatment of one or more of the great political and social upheavals that have disrupted numerous countries during the last several centuries.

50:510:265. Imperialism (3)
The rise and fall of European power in the third world during the nineteenth and twentieth centuries.

50:510:270. Witchcraft and Magic (3)
Focuses on theory and practice in Europe and America from the Middle Ages to the present.

50:510:291. Military History to World War I (3)
Introduction to military technology, strategies, tactics, and battles from the ancient world to World War I.

50:510:292. Military History from World War I (3)
Development of military policies, weapons, and warfare from 1914 to the present.

50:510:299. Perspectives on History (3)
Intended for history majors; should be taken as soon as the major is declared, preferably by the end of the sophomore year. Must be completed before senior seminar.
Introduces majors to the process and practice of historical research. Emphasizes skills development in interpreting primary and secondary sources, online and print-based searches, developing practical questions and projects, and oral / written presentations of original research.

50:510:301. The Ancient Near East (3)
The civilizations that developed in Egypt and Mesopotamia from the beginnings of history (ca. 3000 B.C.) to their disappearance under the Greeks and Romans.

50:510:302. Ancient Israel (3)
From the founding of the Davidic kingdom (ca. 1000 B.C.) and the building of the First Temple by Solomon to the destruction of the Second Temple by the Romans (70 A.D.)

50:510:303. Athens: The Golden Age (3)
The most famous Greek city-state, its political development as well as its artistic accomplishments, during the fifth and fourth centuries B.C.

50:510:304. Rome of the First Caesars (3)
The transformation of the Roman republic under its most famous leaders (Caesar, Cicero, Pompey, Marc Antony, and others) into the empire under Augustus and the Julio-Claudian line (Caligula and Nero among others).

50:510:305. The Fall of Rome (3)
The disappearance of the Roman empire during the third, fourth, and fifth centuries A.D. as barbarian invaders conquered the West.

50:510:311. Medieval Society (3)
Traces the history of Europe between 410 and 1450. Shows the middle ages not only as an age of faith but also as an age in which new technologies and political ideas came to the fore. This period shown not as a "dark age" but as an age of political and religious evolution. Many of the elements of modern politics and philosophy are reflected in this distant mirror.

50:510:312. The Problem of Church and State, 1050 –1789 (3)
This problem has been at the center of European politics since the middle ages. Seeks to trace the evolution of this changing relationship through the examination of a series of particular cases. Shows how some secular states used the church to their advantage while others actually fought wars to remove the church from secular government; a look at the American Constitution and Bill of Rights against the backdrop of 700 years of European conflict.

50:510:315. The Renaissance and the Reformation (3)
Shows the Renaissance as an age of both tradition and discovery. See how elite urban Italians created the idea of individual achievement and how the rest of Europe appropriated this idea. A look also at the effects of "humanism" on religion and on common people through firsthand accounts and films.

50:510:316. Spain and the Golden Age (3)
Traces the rise and fall of the greatest empire in human history. In the sixteenth century, Spain controlled much of Europe; South, Central, and North America; parts of Africa; and parts of Asia. By the mid-seventeenth century, Spain's empire was crumbling and Spain itself was a second-rate power; yet paradoxically, Spanish arts were flourishing. Looking at Spain, Portugal, their empires, European relations, and cultural production, we try to grasp the processes involved with Spain's dramatic grandeur and loss.

50:510:320. Science and Discovery (3)
Shows the origins and outcomes of what is called the "scientific revolution." Also shows how medieval science was reformed in the sixteenth and seventeenth centuries and how these shifts in the way Europeans viewed nature formed the very basis of our own modern society.

50:510:321. Absolutism and Enlightenment in France and Europe (3)
Traces the development of the absolutist modern state and how the enlightenment of thought formed the basis of the French revolution. How European monarchs created machines for governing and how philosophers criticized these systems and, in reaction to tyranny, created ideas of human progress.

50:510:322. The Era of the French Revolution and Napoleon (3)
Considered by some the greatest single event in human history, the French revolution shook the world. Examines how and why this social and political explosion took place in France, how it affected the world, and why Napoleon and his warring ways were the outcome of such a cataclysmic event.

50:510:323. A History of the City of Paris (3)
Seeks to show Paris as lens for understanding European history. Through Paris, a look at symbolism, class relations, the uses of space and power, economy and culture, and the birth of modern age. How history shaped Paris, but more importantly, how Paris shaped the events that changed the world for over 1,000 years.

50:510:325. Europe, 1815 –1914 (3)
European political, social, and cultural history between the fall of Napoleon and the outbreak of the First World War.

50:510:331. Europe in the Era of the World Wars (3)
From the assassination of Franz Ferdinand to the Great Depression; Stalin, Mussolini, and Hitler; the Second World War and its legacies.

50:510:332. Europe since World War II (3)
The rebuilding of Europe after World War II, from cold war to détente to the fall of communism. The evolution of a modern mass society.

50:510:340. Modern Japan (3)
Focuses on the period of Japanese history from the Meiji restoration in 1868 to the present. The only East Asian country reaching the same level of economic development as the major Western powers. Traces Japan's transformation from an isolated and island country to an aggressive colonial power and then to a peaceful economic giant.

50:510:342. Japan under Warrior Government (3)
Focuses on the period from shortly before the founding of the first warrior government (Kamakura Bakufu) in the twelfth century to the Meiji restoration in the nineteenth century. Important for understanding the most unique characteristics of Japanese culture. Earlier periods of Japanese history also discussed as essential background information.

50:510:344. Ideas and Images in Chinese Culture (3)
Study of the most influential ideas in Chinese culture and some important features of Chinese art. Focus on traditional Chinese culture, also modern developments. Readings mostly of translations of Chinese sources, such as fiction, drama, religious and philosophical works, jokes, etc. Some modern interpretive works included.

50:510:346. Family and Gender in East Asian Cultures (3)
Examines the changing conditions of family life and gender roles in East Asia (China, Japan, Korea) from a historical perspective. Readings of historical accounts pertaining to family life and gender roles and works of fiction that represent people's ideas on such issues. Premodern and modern periods covered.

50:510:352. Modern Britain (3)
The development of the first modern society, with particular attention to the social and cultural impact of the industrial revolution and Britain's role as a world power.

50:510:355. Modern Germany (3)
Political, social, and intellectual changes since the mid-nineteenth century, with particular attention to the relationships between authority and freedom. Focus on the years between the rise of Bismarck and the fall of Hitler.

50:510:360. Modern Italy (3)
From the nineteenth-century struggle for unification, through the dictatorship of Mussolini, up to the present.

50:510:370. Modern France (3)
Political turbulence and social stability from the pre-1789 old regime to the socialist government of François Mitterand.

50:510:373. Gender in Russian and Soviet History (3)
Exploration of notions about gender and the roles of women in tsarist Russia and the Soviet Union. Topics include women in literature, the rise of a feminist movement, women in revolution, and women in Russian and Soviet reality.

50:510:374. Jews in Modern Europe (3)
European Jewry from the beginning of emancipation in the late eighteenth century to the Holocaust. Major themes include assimilation, anti-Semitism, Jewish identity, and religious reform.

50:510:375. Russia under the Tsars (3)
Survey of Russia from the advent of the Romanov dynasty through the revolution of 1905. Topics include the growth and decline of the autocratic state, the consequences of Russia's identification with the West, serfdom and the peasantry, the "parting of ways" between state and society, and the rise of a revolutionary opposition to tsarism.

50:510:376. Revolutionary and Communist Russia (3)
Survey of the major historical developments in Russia and the USSR since the revolution of 1905. Topics include the fall of tsarism, the Bolshevik victory, Stalinism, the consequences of revolutionary change, de-Stalinization, the "nationality question," perestoika, glasnos't, and the collapse of Soviet communism.

50:510:377. The Russian Experience (3)
Thematic analysis of Russian historical issues. Topics include political tradition, gender, national minorities, the peasantry, Russia and the West, the rise of the working class, and oppositional movements.

50:510:378. Communist Dreams and Soviet Realities (3)
Thematic analysis of Russian historical issues. Topics include the Bolshevik Revolution, ideology, Stalinism, gender, industrialization, collectivization of agriculture, the Terror, Soviet Jewry, and dissident movements.

50:510:379. Transitioning from Communism (3)
Political, cultural, economic, and social developments in post-communist Russia, the former Soviet Republics, and the Eastern bloc.

50:510:380. Special Topics in European, African, or Asian History (3)
Open to majors and nonmajors.
A theme in European, African, or Asian history.

50:510:396. Imagining European History on Film (3)
European film as a historical document that illuminates key moments in twentieth-century European history. Themes include the world wars, fascism and Nazism, revolutionary and oppositional movements, gender and sexuality, nationalism, decolonization, racism, and anti-Semitism.

50:510:397. Imagining Russian and Soviet History on Film (3)
Film as an instrument of art, propaganda, and subversion during the Soviet period; as a reflection of the new Russia after the Soviet Union's collapse.

50:510:481,482. Seminars in World History (3,3)
Open only to junior and senior history majors and others with permission of instructor. History majors should complete 50:510:101,102, 299 and 50:512:201,202 before enrolling.
Intensive study of major historical problems or periods in European, African, or Asian history. Requires a paper based upon the use of research techniques.

50:510:495-496. Honors Program in History (3,3)
A two-term course of research and writing.

50:510:499. Independent Study in History (BA)
Prerequisite: Permission of a faculty supervisor.
Independent readings under the supervision of a member of the department.

Courses (American History 512)

50:512:201. Development of the United States I (R) (3)
Introduction to American history, with emphasis on political, economic, and social factors from the colonial period through the Civil War and Reconstruction periods.

50:512:202. Development of the United States II (R) (3)
Continuation of 50:512:201, with emphasis on the development of industrial and corporate America, with evolution of politics and reform, and the role of the United States in world affairs.

50:512:203. African-American History I (R) (3)
An introduction to the history of black people in America, with a survey of African background, the history of slavery and resistance to slavery, and the evolution of black leadership through the Civil War.

50:512:204. African-American History II (3)
Continuation of 50:512:203, tracing black leadership and cultural development through Reconstruction, the period of official segregation, and the civil rights revolution.

50:512:211. Latin America I (3)
Hispanic-American civilizations from the pre-Columbian period to the wars of independence.

50:512:212. Latin America II (3)
Hispanic-American civilizations from the independence movement to the present.

50:512:220. Women in American History (3)
Examines the cultural, social, economic, political, and intellectual roles women have played in American history. Focuses on critical events, such as the movements for abolition, temperance, suffrage, and the equal rights amendment and on critical ideas about the intersection of gender with issues of race, ethnicity, class, religion, and region.

50:512:225. American Popular Culture since 1900 (3)
A study of popular culture–art, music, motion pictures, theater, and popular literature–in historical perspective.

50:512:276. Sports in American History (3)
Traces the role of sport in the development of American history from earliest colonial roots through modern urban-industrial society.

50:512:300. Founding of English America (3)
Study of English North American settlement, emphasizing the evolution of English social and political institutions into distinctive American forms.

50:512:305. The Age of the American Revolution (3)
The American Revolution, with independence from England producing sharp changes in society, economy, and politics, and resulting in the establishment of a unique republican system.

50:512:315. The Age of Jacksonian Democracy (3)
American society and politics after the War of 1812, featuring economic transformations, political democratization, social reforms, sectionalism, and expansion.

50:512:320. Civil War and Reconstruction (3)
The political, social, and economic history of the United States from 1850 to 1877; emphasis on the Civil War, its causes and effects.

50:512:325. The American Industrial Revolution (3)
Focuses on the period from the 1860s through the beginning of World War I, with particular emphasis on the growth of American industries, labor relations, and the resulting social problems and political responses that derived from the industrial revolution. Also looks at the expansion of the U.S. into overseas markets and territorial acquisitions in the period.

50:512:330. America in the Age of World Wars (3)
World War I, the decades of the 1920s and 1930s, the evolution of economic policy during the Hoover and Roosevelt presidencies, and the events of World War II.

50:512:335. From the Bomb through Vietnam: America 1945–1975 (3)
Was the world safe for democracy? Would the promise of American life come true for all citizens? What did the beatniks, hippies, and feminists really want? These questions, focusing on the Cold War, the struggle for social justice, the Vietnam War, feminism, suburbanization, popular culture, and politics examined.

50:512:336. Seeking Security: America in the Fifties (3)
Examines a wide range of evidence about the culture and meaning of the fifties and determines how this era transformed our culture and shaped the way we live today. Topics covered are the Cold War, the role of television, rock and roll, feminism, suburban lives, and the place of technology in society.

50:512:338. HOPE AND RAGE: AMERICA IN THE 1960S (3)
Explores the 1960s from the perspective of the baby boomers who came of age in the shadow of the bomb, who fought for social justice movements, who experienced hope and rage, and who changed the culture even as it changed them.

50:512:340. THE CIVIL RIGHTS MOVEMENT (3)
Intensive examination of the civil rights movement including the legal strategy of the National Association for the Advancement of Colored People (NAACP) to challenge de jure segregation. Focuses on the period 1954–1968.

50:512:342. AMERICA SINCE THE 1970S (3)
The most recent transformations in American politics, society, and culture seen in historical perspective.

50:512:345. NEW JERSEY AND DELAWARE VALLEY HISTORY (3)
First part of course examines New Jersey from earliest colonial roots as West and East Jersey through lectures and readings. The second part consists of student presentations of the histories of their own South Jersey communities, towns, or some specific topic on local history of special interest to the student.

50:512:360. AMERICAN ETHNICITY (3)
Examination of different ethnic identities over time both as separate from and in accommodation to broader structures of American identity.

50:512:362. HEALTH, DISEASE, MEDICINE, AND SOCIETY IN AMERICA (3)
Explores the rise of the American health-care system; the development of medicine; the work of healers; the role of technology; and the patient's and community's experiences of illness, healing, death, and birth.

50:512:364. CITY AND SUBURB IN AMERICAN HISTORY (3)
Examination of the central stages of development with metropolitan areas, from the colonial town to suburban sprawl.

50:512:366. TECHNOLOGY IN AMERICA (3)
Technological innovations and their diffusion helped transform the United States from a farming society to an industrial nation, and recently to a complex information-intensive computer- and service-centered economy. Deals with two centuries of American technological development and its implications.

50:512:368. HIGH-TECHNOLOGY AMERICA: BUSINESS AND TECHNOLOGY, 1945–1995 (3)
World War II was the first high-technology conflict, featuring radar, sonar, and atomic bombs. It also generated impulses for creation of computers, communication / information, and aerospace technologies whose histories will anchor an analysis of the material and cultural worlds that high-technology has fashioned in the United States since 1940–1945.

50:512:371. HISTORY OF CHILDHOOD IN AMERICA (3)
Looks at what it has meant to grow up in America and at how the meaning of childhood has changed over time. Explores the roles children have played as workers, students, warriors, criminals, entertainers, and consumers; examines how children have experienced major life events, such as war, illness, and migration.

50:512:372. MODERN ESPIONAGE (3)
Review of the major espionage efforts of the United States, the Soviet Union, Germany, and Britain in the period 1938–2000. Reviews how later revelations of espionage required revision of the understanding of such issues as the outcome of wars, national security, and the role of ideology in the Cold War.

50:512:374. THE ATOMIC AGE (3)
Reviews the development of nuclear weapons; nuclear power technology; and the resulting social, political, and international relations problems that have derived from these technologies in the period 1938–2000.

50:512:376. U.S. NAVAL/MILITARY HISTORY (3)
Examines how Americans organize, think about, and fight war on land, sea, and in the air from earliest colonial militias to the latest hi-tech weapons systems.

50:512:380. SPECIAL TOPICS IN AMERICAN HISTORY (3)
Open to majors and nonmajors.
A theme in American history.

50:512:388. HISTORY OF TELEVISION (3)
History from its origins in the 1930s to the present. Focuses on how television has changed our social and political culture from its origins to the present. Also examines the change of television companies to media conglomerates in the previous decade.

50:512:389. AMERICAN FILM HISTORY: 1890–1940 (3)
Survey of economic and artistic origins of the American film industry. Includes discussions of major artists such as D.W. Griffith and Charlie Chaplin.

50:512:390. AMERICAN FILM HISTORY: 1940 TO PRESENT (3)
Survey of major economic and artistic developments in the American film industry. Includes discussion of major artists such as Orson Welles and Alfred Hitchcock.

50:512:392. AMERICAN LIVES: HISTORY AND BIOGRAPHY (3)
Examines the relationship of history and biography. Explores how the lives of individual Americans can be used to illuminate critical themes in American history and demonstrates how individual lives are shaped by historical forces.

50:512:475. INTERNSHIP IN PUBLIC HISTORY (3)
Open only to history majors.
Designed to provide students with practical experience in the public history field by working in a local archive, historical society, or other historical activity. Students assigned an on-site mentor and write a final report on the experience for the supervising instructor in the history department. Usually unpaid, internships include forty-five to ninety hours of work over the term.

50:512:481,482. SEMINARS IN AMERICAN HISTORY (3,3)
Open only to junior and senior history majors and others with permission of instructor. History majors should complete 50:510:101,102, 299 and 50:512:201,202 before enrolling.
Intensive study of major historical problems or periods in American history. Requires a paper based upon the use of research techniques.

HOME ECONOMICS 520

50:520:255. NUTRITION (3)
Prerequisites: Nursing majors: 50:160:107-108. Nonnursing majors: Permission of instructor.
An examination of the basic principles of nutrition as applied to the needs of people from all age, cultural, and economic groups.

HONORS COLLEGE

Web Site: http://www.camden.rutgers.edu/~honorvip/index.html

Director, Professor Allen Woll, Department of History

The Honors College provides a four-year course of study with provocative new courses designed for honors students. During the first two years, students experience three honors seminars in a variety of topics from the sciences, humanities, and social sciences. Students work with professors who are among the leading experts in their fields. Since honors seminar topics are selected from proposals submitted by Rutgers faculty, the classroom instruction includes information that will appear in tomorrow's textbooks. Students also may submit proposals for honors seminars. Each year, Rutgers–Camden honors faculty teach approximately fifteen seminars.

The honors seminars involve weekly reading assignments and extensive classroom discussion. Because attendance in each seminar is limited to between ten and fifteen students, students receive more extensive and personal attention than is possible in most college courses. Classes often meet in an informal setting where roundtable discussions are held in a comfortable classroom. Written work often takes the form of essays and papers rather than examinations. Honors faculty frequently provide their students with special bibliographies and offer them opportunities for independent study. Recent seminar offerings have included: The 1950s, Religion in the New Millennium, Classic Legal Cases, Science Fiction/Science Fact, Remembering Vietnam, and the New Edge City. The most prestigious faculty members on campus participate in the program. Many of these professors have won Rutgers' top teaching awards and have published widely in their disciplines.

Four-Year Course of Study

First and Sophomore Years

Three honors seminars chosen from the humanities, the social sciences, and the sciences (no more than two from any one division)
Honors English 101 and 102 (first year)
Honors World Masterpieces (sophomore year)

Junior Year

Junior Project: The City and the World

Options include:

- Study Abroad (either a junior year abroad at Rutgers' European campus sites or a course with the International Studies Program in Camden (worldwide study tours with campus faculty), the National Student Exchange, or affiliation with the University of Namibia, or
- independent study or research (3 credits), or
- Community Service Opportunities, or
- Internships (including the LEAP Academy Internship and the Business Internship Program).

Senior Year

Senior Project

Options include:

- Departmental Honors in the student's major, or
- two graduate-level courses, or
- General Honors Interdisciplinary Thesis, or
- Completion of a minor program.

First-year and sophomore students may apply to enter the program after completing their first term at Rutgers–Camden. Students should have a 3.7 average and must file an application by October 15, or March 1 for the following term. Requirements reflect the term of the student's entry into the program. Applications are available in the Honors College offices in the Robeson Library. Transfer students may enter the program in the junior year, completing Honors World Masterpieces (or, if credit has been granted, an honors seminar), an honors seminar in the junior year, and a senior project in the senior year.

Courses

50:525:121,122. HONORS SEMINAR (3,3)
50:525:121 (R) given in the fall; 50:525:122 given in the spring.
A series of interdisciplinary courses in the humanities, social sciences, and the sciences. Specific topics change each term.

50:525:125. HONORS INDEPENDENT STUDIES (3)
A study of a special topic not offered in the regular curriculum. The topic must meet the approval of both the honors director and the professor teaching the course.

50:525:130. GENERAL HONORS INTERDISCIPLINARY THESIS (3)
A major research paper or project during the senior year that spans the boundaries of two or more disciplines. The project must be approved by the honors director and the professors supervising the project.

INTERNATIONAL STUDIES PROGRAM 551

Web Site: http://finearts.camden.rutgers.edu/

The International Studies Program at Camden coordinates study abroad courses for many departments on campus, including English, theater arts, music, foreign languages, urban studies, sociology, art history, and others. These short-term study programs for credit are offered in conjunction with courses originating on campus. Course listings are included each term in the Schedule of Classes.

For specific information, contact Professor John Giannotti, director, International Studies at Camden.

STUDENT-PROPOSED MAJORS AND MINORS 555

Web Site: http://www.camden.rutgers.edu/Camden/Arts_Sciences/studprom.html

Student-Proposed Majors

A student may design an arts and sciences interdepartmental major. The major must consist of at least 48 credits, at least 15 credits of which must be chosen within one department at the 300 level or above. This program can be completed either through daytime or evening attendance and does not apply to the School of Business–Camden.

Before being permitted to pursue the major, the student must obtain the approval of the Academic Policy and Courses of Study Committee one year prior to graduation. To seek this approval, the student must complete a "Request for a Student-Proposed Major" form that is available at the Office for Student Affairs. On this form, the student

must (1) list the courses intended for the major, (2) obtain the written consent of the chairperson of the department whose courses make up the fifteen or more upper-level, single-department courses of the major, and (3) obtain the written consent of a full-time faculty member who will act as the student's adviser. The student should attach a current transcript as well as a rationale for the student-proposed major and a discussion of its intellectual and/or practical coherence. The form plus attachments should be sent to the Academic Policy and Courses of Study Committee, Office for Student Affairs, for consideration.

Once approval has been granted, a copy of the student's major program of study will be filed with the registrar and the student affairs office. If the student wishes to alter the major, written permission from the adviser and the same department chairperson as above must be received. If new departments are involved in the proposed change, the chairperson of these departments also must approve the change. The changed major must then be reapproved by the committee.

Student-Proposed Minors

A student may design an arts and sciences interdepartmental minor. The minor must consist of at least 18 credits, at least 9 of which must be chosen within one department at the 300 level or above. This program can be completed either through daytime or evening attendance and does not apply to the School of Business–Camden.

Before being permitted to pursue the minor, the student must obtain (1) the written consent of a full-time faculty member who will act as the student's adviser, and (2) the approval of the Academic Policy and Courses of Study Committee one year prior to graduation. The student should submit the proposal to the Academic Policy and Courses of Study Committee. It should include: (1) a rationale for the student-proposed minor and a discussion of its intellectual and/or practical coherence, and (2) two itemized lists, one of all courses completed and one of those courses now being taken and yet to be taken.

Once approval has been granted, a copy of the student's minor program of study will be filed with the registrar and the Office for Student Affairs. If the student wishes to alter the minor, written permission from the adviser as above must be received. The changed minor must then be reapproved by the committee.

ITALIAN 560

50:560:101,102. ELEMENTARY ITALIAN (3,3)
For students with no knowledge of Italian or less than two years of high school Italian.
Training lays a foundation for speaking, writing, reading, and understanding the language.

JOURNALISM 570

See English.

JUSTICE AND SOCIETY 572

The departments of sociology, psychology, political science, and philosophy offer a minor program in justice and society. This minor should hold particular interest for students considering careers as probation or parole officers, correctional personnel, or in other justice-related occupations. Its unique interdisciplinary approach guides the student through the complexities of justice: violence and nonconformity, temporary insanity and civil liberties, legal defenses and public safety, capital punishment, and ethics of justice.

Minor Requirements

Students minoring in justice and society must take a minimum of 18 credits of interdisciplinary work distributed as follows:

- 3 credits in sociology or criminal justice: 50:920:313 Theories of Crime and Delinquency, 50:920:329 Law and Society, or 50:920:344 Sociology of Deviance, or criminal justice (202) courses
- 3 credits in psychology: 50:830:335 Social Psychology or 50:830:341 Psychology and the Law
- 3 credits in political science: 50:790:381 Judicial Process, 50:790:401 American Constitutional Development, 50:790:414 The Supreme Court as a Political Institution, or 50:790:442 Human Freedoms and the Constitution
- 3 credits in philosophy: 50:730:315 or 316 Some Contemporary Moral Issues or 50:730:319 Modern Social and Political Philosophy or 50&64:730:320 Philosophy of Law
- 6 credits of the student's choice from among courses listed for the minor

LATIN AMERICAN STUDIES MINOR

Web Site: http://www.camden.rutgers.edu/dept-pages/latin_am/latin_am.html

The Latin American Studies minor requires a minimum of eight courses (24 credits). Students interested in the minor must complete a core of four courses (12 credits) consisting of 50:512:211,212 Latin American I,II, 50:940:203 Spanish Composition and Conversation, and a social science or business course covering minority or international issues. The remaining four courses will be selected from the following list:

50:070:341	Peoples and Cultures of Latin America (3)
50:202:337	The Poor, Minorities, and Justice (3)
50:620:369	The Management of Multinational Business (3)*
50:630:371	Marketing (3)*
50:790:211	Introduction to International Politics (3)
50:790:311	Government and Politics of Latin America (3)
50:830:203	The Psychology of Minority Groups (3)
50:920:316	Race and Ethnicity (3)
50:940:204	Advanced Spanish Composition and Conversation (3)
50:940:302	Spanish and Spanish-American Culture and Civilization (3)
50:940:315	Commercial Spanish (3)

* School of Business–Camden students only.

Optional Study Abroad

Strongly recommended, but not required, is a term of studies in the junior year in Mexico City at Universidad Ibero Americana, a university run by Mexican Jesuits. The academic credits earned in Mexico are counted toward the degree and the minor.

The cost of studying in Mexico for a term is usually less than the cost of studying at the Rutgers–Camden campus as a resident student. Certain types of financial aid that a student has obtained are applicable to the term in Mexico.

Another opportunity to visit Latin America is available in the summer through a community service project conducted in a Latin American country. Student volunteers spend approximately two months working in rural communities and studying the language and culture of the people. Other options besides Mexico include Chile, Colombia, and Puerto Rico.

Upon graduating, the student receives a baccalaureate degree in the major field plus a certificate in Latin American studies. Graduating seniors should be able to speak Spanish and have been abroad at least once. Information can be obtained from the Department of Spanish.

LAW

Students preparing to enter law school should obtain a strong education in liberal arts. No one major can be described as the best prelegal program. Courses in writing, political science, logic, economics, statistics, and computer science all can be helpful in preparation for law school. Admission to law school is highly competitive, and law schools consider undergraduate cumulative grade-point average, strength of academic program, and results of the Law School Admission Test (LSAT). Students interested in law school should consult the campus' prelaw adviser, Alan Tarr, Department of Political Science, 401 Cooper Street, 856/225-6084, ext. 43. Information for admission to Rutgers' School of Law–Camden may be obtained from the Office of Admissions, 406 Penn Street, third floor, or by mail at the Office of Admissions, School of Law–Camden, Rutgers, The State University of New Jersey, 406 Penn Street, third floor, Camden, NJ 08102; 856/225-6102.

LIBERAL STUDIES 606

The major in liberal studies is available only to University College students at Camden and at designated off-campus centers.

Program Director: Robert Fishman, Department of History

The interdisciplinary major in liberal studies is specifically designed for students who transfer to University College–Camden with an Associate in Applied Science degree. (Students enrolling in the Western Monmouth Learning Center in Freehold may transfer with the A.A. or A.S. degree in addition to the A.A.S.) Adult students who already have attained significant technical and applied skills and who now wish to pursue their education in the liberal arts can obtain the bachelor's degree through this program.

The program recognizes the previous achievements of these students by allowing them to transfer up to 60 credits of their community college work toward the Rutgers degree—including credits for technical courses that do not ordinarily transfer as degree credits. Subject to program review, the technical courses are accepted as a block of up to 36 credits; these courses only are applicable toward a liberal studies major. Other courses taken as part of the Associate in Applied Science degree will be accepted on a course-by-course basis in accordance with the agreements made between Rutgers–Camden and the community colleges. These individual courses (up to 24 credits) are applicable toward the general degree requirements of University College–Camden.

Students in the major concentrate in one area of the liberal arts—humanities, social sciences, or natural sciences—and take one-half of their requirements for the major from upper-division (junior and senior) courses in that area. The other half of the required curriculum can be chosen from upper-division courses in the other two areas in which the student has chosen not to concentrate. In addition, students are required to fulfill 48 credits of the general requirements for the Rutgers–Camden Bachelor of Arts degree. They are required to complete general curricular requirements 1 through 7 but are exempted from requirement 8 (refer to Degree Requirements chapter of this catalog). Some of this 48-credit requirement may be fulfilled by courses among the 24 general credits transferred from the community college.

Students will find the level of upper-division course work in the liberal arts at Rutgers to be a challenge. We require that all students in the major enroll as soon as possible in the required courses 50:606:301,302 Mastering the Liberal Arts I,II. This interdisciplinary course uses a range of topics and methods to challenge students to further develop the array of advanced skills needed to master the material taught in upper-division liberal arts courses. The first term emphasizes reading and writing skills needed in advanced humanities courses. The second term emphasizes developing reading, research, and quantitative skills appropriate for the social sciences and the natural sciences, with particular attention to psychology, sociology, urban studies, and ecology and biology. Regular writing and research assignments are an integral part of these two courses.

Degree Requirements

For purposes of this major, humanities, social sciences, and natural sciences courses are grouped as follows:

Humanities: art, English, foreign languages, history, music, philosophy, religion, theater arts
Social Sciences: anthropology, economics, political science, psychology, sociology, urban studies
Natural Sciences: astronomy, biological sciences, chemistry, computer science, geology, mathematics, physics, statistics

Transfer Credits from Associates of Applied Science Degree Program

36 credits taken in courses applicable to A.A.S. degree
24 credits applicable to Rutgers–Camden general requirements

Major Requirements

Core Courses (36 Credits)

1. 50:606:301,302 Mastering the Liberal Arts I,II (3,3)
2. Upper-division concentration—18 credits from courses in either the humanities, social sciences, or natural sciences
3. Secondary area—6 credits from upper-division courses
4. Tertiary area—6 credits from upper-division courses

Core courses may not be used to fulfill general requirements.

Electives (24 credits)

Liberal arts and science courses (24 credits). These credits also may be used to fulfill general requirements and as prerequisites for upper-division liberal studies courses.

Courses

50:606:301. MASTERING THE LIBERAL ARTS I (3)
Required of all students in the major.
A range of topics and methods used to challenge students to further develop the array of advanced skills needed to master the material taught in upper-division liberal studies courses. Emphasizes the reading and writing skills needed in advanced humanities courses. Regular writing and research assignments.

50:606:302. MASTERING THE LIBERAL ARTS II (3)
Required of all students in the major.
A range of topics and methods used to challenge students to further develop the array of advanced skills needed to master the material taught in upper-division liberal studies courses. Emphasizes developing reading, research, and quantitative skills appropriate for the social sciences and the natural sciences, with particular attention to psychology, sociology / urban studies, and ecology / biology. Regular writing and research assignments.

50:606:480. SPECIAL TOPICS IN THE LIBERAL ARTS (3)
Focuses on selected topics; content varies by term.

LINGUISTICS 615

See English.

MANAGEMENT 620

See the Courses chapter in the School of Business–Camden section.

MARKETING 630

See the Courses chapter in the School of Business–Camden section.

MATHEMATICAL SCIENCES 640
(Mathematics 640, Statistics 960)

Web Site: http: / / carp.rutgers.edu / math_undergrad /

Major requirements in mathematics can be completed only through daytime attendance.

Department of Mathematical Sciences

Chairperson: Gabor Toth

Mathematics

Professors:

Howard Jacobowitz, B.S., Rensselaer Polytechnic Institute; M.S., Ph.D., New York
Gabor Toth, B.A., Ph.D., Eotvos Lorand (Hungary)

Associate Professors:

George Anthony Articolo, B.S., Rensselaer Polytechnic Institute; M.S., Ph.D., Temple
Leonard Nathan Bidwell, A.B., A.M., Ph.D., Pennsylvania
Joseph L. Gerver, B.A., Columbia; Ph.D., California (Berkeley)
Claire C. Jacobs (emerita), A.B., CUNY (Hunter); A.M., Columbia; M.S., Pennsylvania
Martin Karel, B.A., Johns Hopkins; M.A., Ph.D., Chicago
Will Y.K. Lee, B.S., M.S., Kyung pook (Korea); Ph.D., SUNY (Stony Brook)
Mahesh Nerurkar, B.A., M.S., Bombay; Ph.D., Minnesota

Assistant Professor:

Haisheng Li, B.S., Hebei Normal College; M.S., Harbin Normal College; Ph.D., Rutgers

Instructor:

Josephine Johansen, B.A., Rutgers; M.S., Drexel

Statistics

Professor:

Dinesh S. Bhoj, B.Sc., Ferguson College (India); B.Sc. (Hons), M.Sc., Poona (India); M.S., Ph.D., Pennsylvania

Associate Professors:

Debashis Kushary, B.Sc., M.Sc., Indian Statistical Institute (India); Ph.D., Rutgers
Yuchung Jeff Wang, B.S., M.S., National Tsing-Hua (Taiwan); M.S., Ph.D., Rutgers

Major Requirements

Following are three options that students may choose according to their field of interest. It should be understood that these options specify a minimum requirement in each case. It is strongly recommended that they be supplemented by additional course work.

Students planning to specialize in Statistics 960 should contact the mathematical sciences department for a suitably designed program.

On admission, first-year students are assigned codes on the basis of a placement test in mathematics. The codes indicate readiness for regular math courses of various levels or the need for developmental courses (50:640:041-042). Students are required either to place out of the developmental sequence or to complete the sequence as prerequisite for any other course in mathematics, statistics, or computer science.

Students who are planning to take actuarial examinations are urged to enroll in the courses 50:640:331 and 50:960:481,482.

Pure Mathematics Option

To qualify for the option in pure mathematics, a student must satisfactorily complete with a grade of C or better each of the following courses in the suggested four-year schedule:

First Year

50:640:121,122 Unified Calculus I,II (4,4)

Sophomore Year

50:640:221 Unified Calculus III (4)
50:640:250 Linear Algebra (3)
50:640:314 Elementary Differential Equations (3)
50:640:356 Theory of Numbers (3)

Junior Year

50:640:311,312 Advanced Calculus I,II (3,3)
50:640:351,352 Introduction to Modern Algebra (3,3)

Senior Year

50:640:403 Introductory Theory of Functions of a Complex Variable (3)
50:640:435 Geometry (3)
50:640:441 Introductory Topology (3)
50:640:491 or 492 Mathematics Seminar I,II (3)

Courses 50:640:403, 435, and 441 are each offered in alternate years. Students pursuing the pure mathematics option should enroll in one or more of these courses during their junior year.

Deviations from the set program must be approved by the mathematical sciences department.

Applied Mathematics Option

The student with an interest in the overlapping disciplines of biology, chemistry, computer science, engineering, physics, and mathematics is urged to major in applied mathematics. Outstanding students in biology, chemistry, computer science, engineering, and physics with a strong interest in mathematics are encouraged to apply for a second major in applied mathematics. To qualify for the option in applied mathematics, a student must satisfactorily complete with a grade of C or better each of the following courses in this suggested four-year schedule:

First Year

50:640:121,122 Unified Calculus I,II (4,4)
50:750:131-132, 133-134 Elements of Physics I,II (3,3) and Elements of Physics Laboratory I,II (1,1)

Sophomore Year

50:640:221 Unified Calculus III (4)
50:640:250 Linear Algebra (3)
50:640:314 Elementary Differential Equations (3)
50:960:336 Applied Statistics (3)

Junior Year

50:198:151 Introduction to Programming Methods Using FORTRAN (3) or 50:198:111 Introduction to Computer Science (3)
50:640:311 Advanced Calculus I (3)
50:640:363-364 Computational Engineering Mathematics I,II (3,3)

Senior Year

50:198:381 Introduction to Numerical Methods (3)
50:198:481 Advanced Numerical Methods (3)
50:640:427 Advanced Differential Equations (3)
50:640:463-464 Partial Differential Equations and Boundary Value Problems (3,3)

The preceding list contains 48 credits in the major department. It indicates the chronological sequence in which the student should complete the courses. However, 50:640:427 and 50:640:463-464 are offered in alternate years. Students pursuing the applied mathematics option may need to enroll in this course during their junior year.

A student intending to do graduate work in applied mathematics is advised to include in his or her program some language study (preferably German, French, or Russian).

The student is free to choose electives from any other subjects in the natural sciences, humanities, or social sciences. Microeconomic and macroeconomic principles, 50:220:105-106, are highly recommended.

Deviations from the set program must be approved by the mathematical sciences department.

Mathematics Teaching Option

Students seeking teacher certification in mathematics must complete the requirements for a major in the mathematical sciences department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult both their department adviser and the chairperson of the education department. To satisfy the mathematics major portion of the requirements, a student must satisfactorily complete the relevant courses with a grade of C or better. The teaching option requires the student to complete: 50:198:110 Introduction to Computing, 50:960:183 Elementary Applied Statistics or 50:960:283 Introduction to Statistics I, and 50:640:237 Discrete Mathematics. The student in the pure mathematics option is not required to take 50:640:312 Advanced Calculus II or 50:640:403 Introductory Theory of Functions of a Complex Variable for certification. If the student chooses the applied mathematics option to become teacher certified, then 50:198:110 Introduction to Computing and 50:960:183 Elementary Applied Statistics can be substituted by 50:198:111 Introduction to Computer Science or 50:198:151 Introduction to Programming Methods Using FORTRAN, and 50:960:336 Applied Statistics. The student for certification also will need to take 50:640:237 Discrete Mathematics.

Minor Requirements

A minor in mathematics consists of a minimum of 18 credits of work, of which 9 credits must be at the 200 level or above, and 6 credits must be at the 300 level or above.

A minor in statistics consists of a minimum of 18 credits of work, of which 9 credits must be at the 200 level or above, and 6 credits must be at the 300 level or above.

Departmental Honors Program

The departmental honors program in mathematics is for students who are interested in pursuing individual study and research in particular areas of pure and/or applied mathematics. The honors program follows the general guidelines given under the Departmental Honors Programs in the Degree Requirements section of this catalog.

Students should have a grade-point average of 3.5 or better in courses in mathematics in order to be admitted to the program. Interested students, preferably in their junior year, should discuss the program with the Department of Mathematical Sciences and should obtain approval from the chairperson and the member of the department who is to serve as the student's adviser. At the end of the program, upon recommendation from the Department of Mathematical Sciences, the notation Honors in Mathematics shall be affixed to the permanent academic record of the student.

Courses (Mathematics 640)

Note: Some upper-level courses may be given in alternate years. Please check with department advisers.

50:640:041. Elementary Algebra (NC)
For students who do not have the usual background in mathematics for college admission.
The system of integers, exponentiation, graphing, solution of equations, and basic notions of geometry.

50:640:042. Intermediate Algebra (NC)
Prerequisite: 50:640:041 or placement by Basic Skills Test.
Study of algebraic operations on polynomials, integral and rational exponents, linear and quadratic equations, systems of equations, and the function concept.

50:640:103. Fundamental Mathematics Systems I (R) (3)
Particularly suitable for students of elementary education.
Sets, logic, number systems, and algebraic structures.

50:640:104. Fundamental Mathematics Systems II (R) (3)
Informal geometry, measurement, coordinate geometry, transformational geometry, and introduction to computers.

50:640:105. Finite Mathematics (R) (3)
Particularly suitable for business and economics majors.
Introduction to important and fundamental areas of mathematics that do not require calculus. Topics include set theory; functions and relations; and the algebra of vectors and matrices with applications to systems of linear equations, linear programming, and game theory.

50:640:106. An Introduction to Mathematical Thought (R) (3)
For the student who has serious interest in learning something about mathematical thought and its applications, but who is not planning to major in mathematics.
An understanding of the topics chosen for illustrating mathematical thinking within the reach of the student with the usual high school background.

50:640:108. Numbers and Beyond (R) (3)
This course is designed for students who are considering secondary certification. In addition, it also satisfies the 3-credit mathematics requirement for any other major.
Study of the properties and qualities of number systems and spatial relationships in geometry. Topics needed to explore the developmental beauty of mathematics discussed. Some are logic and reasoning; set theory and number theory; function (not limited to linear); sequences; basic concepts from calculus; group and field concepts; and spatial concepts, such as rotations, translations, and geometric objects.

50:640:113. College Algebra (R) (3)
Prerequisite: 50:640:042 or appropriate score on the Mathematics Placement Examination. Credit not given for both this course and 50:640:115. A nonrequired preparatory course for those students who must take 50:640:130.
A study of real numbers with regard to algebraic operations and order properties. Introduction to complex numbers and logarithmic and exponential functions.

50:640:114. Trigonometry and Analytic Geometry (R) (3)
Elements of plane trigonometry and trigonometric identities. Plane loci, properties of the conic sections, and transformations of coordinates. The line, plane, and quadric surface in three dimensions.

50:640:115. Precalculus College Mathematics (R) (3)
Prerequisite: 50:640:042 or appropriate score on the Mathematics Placement Examination. Credit not given for both this course and 50:640:113. A nonrequired preparatory course for those students who must take 50:640:121-122.
Algebraic expressions, algebraic equations, functions, graphing, and exponential, logarithmic, and trigonometric functions.

50:640:116. Elements of Calculus (R) (3)
Students who plan to take more than one term of calculus should follow the sequence 50:640:121-122. Credit will not, in general, be given for more than one of the courses 50:640:116, 121, or 130.
A one-term survey of the elements of calculus, with emphasis on applications. Topics include elementary functions and their derivatives, rate of change, curve tracing, velocity, minimum and maximum, law of growth and decay, antiderivatives, and definite integral.

50:640:121. Unified Calculus I (R) (4)
Prerequisite: 50:640:115 or accepted score on the Mathematics Placement Examination. Students who plan to take more than one term of calculus should follow the sequence 50:640:121-122. Credit will not, in general, be given for more than one of the courses 50:640:116, 121, or 130.
An introduction to analytic geometry, differentiation of algebraic and transcendental functions, applications of differentiation, and a brief introduction to integration.

50:640:122. Unified Calculus II (R) (4)
Prerequisite: 50:640:121 or equivalent.
An extensive introduction to integration and the definite integral, transcendental functions, methods of integration, applications, and infinite series.

50:640:129. Linear Mathematics for Business and Economics (R) (3)
Prerequisite: 50:640:113 or accepted score on the Mathematics Placement Examination. A mathematics foundations course for the student majoring in business and economics.
Basic algebra, matrices, and linear programming with applications to problems in business and economics.

50:640:130. Calculus for Business, Economics, and Life Sciences (R) (3)
Prerequisite: 50:640:113 or appropriate score on the Mathematics Placement Examination. Students who plan to take more than one term of calculus should follow the sequence 50:640:121-122. Credit will not, in general, be given for more than one of the courses 50:640:116, 121, or 130.
A one-term survey of the elements of calculus with emphasis on applications in business, economics, and life sciences. Topics covered are basic algebra, derivatives, maximum / minimum problems, integration, and partial differentiation.

50:640:182. Elements of Probability (R) (3)
A one-term survey of the elements of the mathematical theory of probability with emphasis on applications. Topics include sets, subsets, Venn diagrams, partitions, independent events, sample spaces and weights, conditional probabilities, the binomial theorem, methods in combinatorial probability, the binomial distribution, and expected value.

50:640:190. Introduction to Higher Mathematics (R) (3)
Designed primarily for mathematics majors.
An encyclopedic survey of different branches of mathematics.

50:640:221. Unified Calculus III (4)
Prerequisite: 50:640:122.
Solid analytic geometry, partial differentiation, multiple integrals, and applications.

50:640:237. Discrete Mathematics (3)
Prerequisite: 50:640:113 or placement.
Sets, relations, and functions. Mathematical induction. Recursion. Propositional logic. Introduction to first order logic. Boolean algebra. Elements of combinatorics. Introduction to graphs and trees.

50:640:250. Linear Algebra (3)
Prerequisite: 50:640:122 or permission of instructor.
Vector spaces, the calculus of matrices, and the theory of determinants.

50:640:311-312. Advanced Calculus I,II (3,3)
Prerequisite: 50:640:221.
A study of convergence, uniform convergence, and continuity, with applications to series expansions in one and several variables; partial differentiation; multiple, line, and surface integrals.

50:640:314. Elementary Differential Equations (3)
Prerequisite: 50:640:221 or permission of instructor.
Theory of ordinary differential equations. Power series methods and existence and uniqueness theorems. Applications to problems in economics, biology, chemistry, physics, and engineering.

50:640:331. Introduction to Actuarial Mathematics (3)
Pre- or corequisites: 50:640:221, 250. Preparation course for the first exam of the college of actuaries.
Survey of calculus and linear algebra, with particular emphasis on topics such as complex exponents and logarithms.

50:640:351-352. Introduction to Modern Algebra (3,3)
Prerequisite: 50:640:250 or permission of instructor.
The study of groups, rings, field, and linear spaces.

50:640:356. Theory of Numbers (3)
Prerequisite: Permission of instructor.
Properties of the natural numbers, simple continued fractions, congruences, and elementary arithmetical functions.

50:640:358. Advanced Discrete Mathematics (3)
Prerequisite: 50:640:237.
Graphs and trees, generating functions, recursion theory, and difference equations. Regular and context-free languages. Finite and pushdown automata. Turing machines.

50:640:363-364. Computational Engineering Mathematics I,II (3,3)
Prerequisite: 50:640:314.
Covers integral theorems of vector analysis, complex variables, series solutions to differential equations, Laplace and Fourier transforms, and use of mathematical software languages such as Maple and Mathematica.

50:640:368. Mathematics for Economic and Business Analysis (3)
Prerequisites: 50:640:129 and 130.
Emphasizes the mathematical foundations of analysis in optimization of multivariate functions; differential and difference equations; linear programming; problems with particular consideration to business and economic interpretation.

50:640:375. Fourier Series (3)
Prerequisite: 50:640:314.
Introduction to the solution of boundary value problems in the partial differential equations of mathematics, physics, and engineering by means of Fourier series, Fourier transforms, and orthogonal functions.

50:640:396. Honors Program in Mathematics (3)

50:640:401. Foundations of Analysis (3)
Pre- or corequisite: 50:640:311.
Introduction to basic concepts of topology and analysis, including point sets, uniform continuity, uniform convergence, compactness, metric spaces, Jordan curves, and the Riemann-Stieljes integral.

50:640:402. Foundations of Analysis (3)
Prerequisite: 50:640:401.
Hilbert Space, Banach Space, Lebesgue integral, elements of functional analysis.

50:640:403. Introductory Theory of Functions of a Complex Variable (3)
Prerequisite: 50:640:311 or permission of instructor.
Topological concepts, analytic functions, elementary conformal mappings, line integrals, Cauchy's theorem, Cauchy's integral formula, the calculus of residues. Taylor and Laurent series, normal families, Riemann mapping theorem, and harmonic functions.

50:640:410. Vector Analysis (3)
Prerequisite: 50:640:221.
Vector calculus and its application to physics. Gauss, Stokes, Green theorems. Potentials.

50:640:427. Advanced Differential Equations (3)
Prerequisites: 50:640:250 and 314.
Autonomous and nonautonomous systems of differential equations; phase plane analysis and stability of critical points; the perturbation method applied to nonlinear equations; modeling and analysis of environmental, biological, chemical, and economic systems. An article interdisciplinary in nature discussed in detail.

50:640:432. Introduction to Differential Geometry (3)
Prerequisite: Permission of instructor.
Space, curves, curvature, torsions, Frenet formulas, curvilinear coordinates, fundamental forms, mean and Gaussian curvature, and the general theory of surfaces.

50:640:435. Geometry (3)
Prerequisites: 50:640:121, 122, 221, or permission of instructor.
Euclidean and non-Euclidean geometries, geometric transformations. Complex language in geometry. Moebius transformations. Symmetries and tessellations. Projective geometry. Regular polytopes.

50:640:441. Introductory Topology (3)
Prerequisite: Permission of instructor.
A study of the standard topics of the set theoretic topology.

50:640:463-464. Partial Differential Equations and Boundary Value Problems (3,3)
Prerequisites: 50:640:363-364.
An advanced course in methods of applied mathematics. Covers differential equations, orthogonal functions, Sturm-Liouville boundary value problems, Green's functions, variational methods, and other topics.

50:640:465. Introduction to the Fundamentals of Mathematics (3)
Prerequisite: Permission of instructor.
Selected topics from the different areas of mathematics.

50:640:472. Special Functions (3)
Prerequisite: 50:640:314.
Theory and applications of functions frequently used in modern analysis such as the gamma function, delta function, Green's functions, Legendre functions, Bessel functions, Schwarz distributions, and others.

50:640:477-478. Mathematical Theory of Probability (3,3)
Prerequisites: 50:640:121 and 50:960:336 or permission of instructor.
Mathematical theory of discrete and continuous probabilities.

50:640:491,492. Mathematics Seminar I,II (3,3)
Prerequisite: Permission of instructor.
Members of the seminar present individually developed reports on topics of mathematical interest.

50:640:493-494. Individual Study in Mathematics (BA,BA)

50:640:495-496. Honors Program in Mathematics (3,3)

50:640:497. Visualizing Mathematics by Computer (3)
Prerequisites: 50:640:121, 122, 221, or permission of instructor. Recommended also for students majoring in computer science as an elective.
A comprehensive introduction to symbolic computational packages and scientific visualization through examples from calculus and geometry. Covers 2-D, 3-D, and animated computer graphics using Maple, Mathematica, and Geomview. No programming knowledge required.

50:640:498. COMPUTATIONAL MATHEMATICS (3)
Prerequisite: 50:640:250 or permission of instructor. Alternate substitute for 50:640:356. Recommended also for students majoring in computer science as an elective.
Designed to emphasize the computational aspect of number theory. The most important topics to treat are the prime numbers, pseudo primes, and their applications, especially cryptography; prime factorization of composite numbers via several different methods explored. Computer simulation emphasized.

50:640:499. MATHEMATICS ON THE WEB (3)
Prerequisites: 50:640:121, 122, 221, 250, or permission of instructor.
Recommended also for students majoring in computer science as an elective.
Designed to get acquainted with using the World Wide Web for finding mathematical information and communicating mathematics.

Courses (Statistics 960)

50:960:183. ELEMENTARY APPLIED STATISTICS (R) (3)
No prerequisite beyond the usual three years of high school mathematics.
Credit will not be given for both this course and 50:830:215.
Frequency distribution, graphical representations, measures of central tendency and variability, elements of probability, the normal curve and its applications, sample versus population, estimating and testing hypotheses, regression and correlation analysis, nonparametric tests. Emphasis on applications.

50:960:283. INTRODUCTION TO STATISTICS I (R) (3)
Prerequisite: 50:640:121 or 130. Intended primarily for business majors and information systems / computer science majors.
Elementary course in the principles and methods of statistics. Topics include measures of central tendency and dispersion, probability theory, random variables and probability distribution, binomial and normal distributions, central limit theorem, confidence intervals, and testing of hypotheses on mean(s) and proportion(s).

50:960:284. INTRODUCTION TO STATISTICS II (R) (3)
Prerequisite: 50:960:283. Intended primarily for business majors and information systems / computer science majors.
A second introductory statistics course. Emphasizes the application of statistical techniques to data analysis. Topics include analysis of variance, nonparametric statistics, simple linear regression, correlation, multiple regression, time series, and index numbers.

50:960:336. APPLIED STATISTICS (3)
Prerequisite: 50:640:122. Intended primarily for applied mathematics majors but open to all qualified students.
Descriptive statistics, probability, random variables, probability distributions, estimation and tests of hypotheses, regression and correlation analysis. Emphasis on applications of these techniques to problems in the biological, physical, and social sciences.

50:960:337. MANAGERIAL STATISTICS (INTERMEDIATE) (3)
Prerequisite: 50:960:283 or permission of instructor.
An intermediate course oriented to business and managerial decisions and research in social sciences. Statistical decision making, a priori and a posteriori probabilities, quality control sampling, power curve solutions, sequential decisions, and research design. Design of sample surveys and study of replicated sampling plans.

50:960:340. SPECIAL TOPICS IN STATISTICS (3)
Prerequisite: 50:960:284.
Aimed at students with any major who want to go beyond the first two statistics courses. Instructor provides proper description.

50:960:384. STATISTICAL DATA ANALYSIS (3)
Prerequisite: 50:960:284.
Aimed at students who want to go beyond the first two statistics courses. Application of statistical techniques to analyze data. Topics include correlation and regression analysis, regression diagnostics, model building, design of experiments, and categorical data analysis. Use of computer packages for visual analysis and interpretation of data.

50:960:390. INTRODUCTORY COMPUTING FOR STATISTICS (3)
Pre- and corequisites: 50:960:283,284.
Aimed at students who want to learn statistical computing along with or after the second statistics course. Introduces statistical computing using packages (Excel, SAS, etc.). Includes computing basic univariate statistics, generating random numbers, computing point estimates and confidence interval, testing of hypothesis, basic ANOVA , and regression.

50:960:452. INTRODUCTION TO BIOSTATISTICS (3)
No prerequisite beyond the usual three years of high school mathematics.
Introduction to the principles and methods of statistical inference for advanced undergraduate and graduate students in biological science. Topics include discussion of random variables, probability distributions, population, sample, measures of central tendency and dispersion, point and interval estimation, testing hypothesis, two-sample comparison, analysis of variance, linear regression and correlation model, and nonparametric methods. Emphasizes applications of statistical principles and analyses for biological science.

50:960:467. INTRODUCTION TO APPLIED MULTIVARIATE ANALYSIS (3)
Prerequisite: 50:960:284.
Aimed at students with any major who want to go beyond the first two statistics courses. Introduction to applied multivariate analysis through multivariate normal distribution. Topics include comparison of mean vector, multiple linear regression, discriminant analysis, principal components, factor analysis, and other applied multivariate topics. Use of statistical packages to perform all the multivariate computation and its interpretation.

50:960:476. INTRODUCTION TO SAMPLING (3)
Prerequisite: 50:960:283 or 336 or permission of instructor.
Application of the principles of sampling to economic procurement or assessment of data. Introduction to various sampling procedures. Emphasis on the design and control phases of investigation. Applications of the techniques to large-scale surveys, accounting and auditing, and operations research.

50:960:481,482. MATHEMATICAL THEORY OF STATISTICS (3,3)
Prerequisite: First course in calculus or permission of instructor.
First term: theory of probability, discrete and continuous probability distributions, introduction to statistical inference. Second term: further study of distribution functions, correlation and regression, analysis of variance and design of experiments, nonparametric methods, sequential sampling.

50:960:483. STATISTICAL QUALITY CONTROL (3)
Prerequisite: 50:960:283 or permission of instructor.
Basic course in modern statistical quality control. Statistical measures, histogram analysis, construction and analysis of control charts for variables and attributes, use of Dodge-Roming and military standards acceptance sampling plans, statistical aspects of tolerances.

50:960:484. STATISTICAL COMPUTING BY SAS (3)
Pre- and corequisites: 50:960:283,284.
Aimed at students who want to learn statistical computing along with or after the second statistics course. Topics include introduction to SAS for reading data, creating datasets, and handling other data steps. Using SAS to perform basic regression and model building techniques. Carrying out ANOVA procedures for different design of experiments. Exposure to basic analysis of categorical, time series, and other types of data.

50:960:485-486. NUMBER PROBLEMS IN MATHEMATICAL THEORY OF STATISTICS (2,2)
To be used as laboratory in conjunction with 50:960:481,482.
Numerical problems applied to data in student's field of study where possible. Emphasis on application of mathematical statistical distributions and methods.

50:960:487-488. INTRODUCTION TO OPERATIONS RESEARCH (3,3)
Prerequisites: 50:960:283,284 or permission of instructor.
A two-term introduction to techniques of operations research involved in construction and solution of models in inventory, linear programming, nonlinear programming, queuing, sequencing, network, replacement, reliability, Markov chains, and competitive problems.

50:960:490. EXPERIMENTAL DESIGN AND ANALYSIS (3)
Prerequisites: 50:960:283,284 or permission of instructor.
An advanced course in statistics with applications in all fields of study. Analysis of variance and covariance, experimental framework and layout, simple randomized designs, randomized blocks. Latin squares, Graeco-Latin squares, factorials, balanced and partially balanced designs, gains in precision and estimation.

50:960:495. INDEPENDENT STUDY IN STATISTICS (3)
Prerequisites: 50:960:283,284 and permission of instructor.
Intended for students who want to concentrate on special methods of statistical analysis and their applications to real world problems.

50:960:496. INDEPENDENT STUDY IN OPERATIONS RESEARCH (3)
Prerequisites: 50:960:487-488 and permission of instructor.
Intended to meet the needs of students who wish to study special techniques of operations research beyond the level of 50:960:487-488, or their applications to real world problems.

MEDICINE, DENTISTRY, AND VETERINARY MEDICINE

Students preparing to enter medical, dental, or veterinary school may do so by enrolling in any departmental program leading to a baccalaureate degree. Unless a student's major program includes at least 6 credits of physics, 6 credits of general biology, and 12 credits of chemistry, including organic chemistry, these should be incorporated. This program can be completed only through daytime attendance. Since some medical, dental, and veterinary schools require courses in addition to those mentioned, students are advised to familiarize themselves with the specific requirements of the schools to which they apply. The AAMC Medical School Admission Requirements Guide, available in the college library, is a valuable source book.

Medical, dental, and veterinary schools require that applicants take an aptitude test as a part of the admissions procedure. Information about these examinations may be obtained from any member of the premedical community.

MICROBIOLOGY 680

See Biological Sciences.

MUSEUM STUDIES

See Fine Arts.

MUSIC 700, 701

See Fine Arts.

NURSING 705

Web Site: http://www.camden.rutgers.edu/dept-pages/nursing_ugrad/nursing.html

The major program in nursing is available only to CCAS students and those who have been accepted by the college.

Department of Nursing

Chairperson: Mary E. Greipp, R.N., Ed.D., FAAN

Professor:

Mary E. Greipp, B.S.N., Villanova; M.S.N., Pennsylvania; Ed.D., Rutgers

Clinical Associate Professor:

Kathleen C. Ashton, B.S.N., Coe; M.S.N., Maryland; Ph.D., Temple

Assistant Professors:

Mary Emily Cameron, B.S.N., Duke; M.S., Boston; Ph.D., Pennsylvania
Barbara Celia, B.S., Rutgers; M.S.N., Pennsylvania; Ed.D., Rutgers
William P. Puentes, B.S.N., Stockton; M.S.N., Pennsylvania; D.N.Sc., Widener
Carole-Rae Reed, B.S.N., Stockton; M.S.N., Ph.D., Pennsylvania
Brent Thompson, B.S.N., M.S.N., Delaware; D.N.Sc., Widener

Clinical Instructor:

Nanette Sulik, B.S.N., M.S.N., LaSalle

The nursing program at Rutgers' Camden College of Arts and Sciences is an upper-division program with all nursing courses given in the junior and senior years. Acceptance to the Camden College of Arts and Sciences does not constitute acceptance to the nursing major. The department has a clearly defined selection process that must be followed.

The nursing major begins in September of the junior year. Application to Rutgers University and Camden College of Arts and Sciences must be made before December 1 of the sophomore year. Interested candidates then obtain and submit a completed departmental application form in January of the sophomore year. The department's Scholastic Standing and Recruitment Committee is responsible for reviewing all candidates' records and transcripts and selecting students for acceptance into the major.

To be admitted in the junior year, a student must be matriculated in or accepted by Camden College of Arts and Sciences and must have completed 60 credits in prerequisite courses. A grade of C or better is required for each course, and a cumulative grade-point average of at least 2.5 is required. Acceptance into the program is dependent upon the student's overall academic record and on the number of openings available at the time of application. All acceptances are conditional, meaning that the student must complete all course work and maintain the required cumulative grade-point average prior to September.

The Department of Nursing welcomes registered nurses, second degree students, and others interested in pursuing a baccalaureate degree in nursing. Interested students must first apply to Rutgers, The State University of New Jersey, Office of University Undergraduate Admissions, 65 Davidson Road, Piscataway, NJ 08854-8097. Upon admission as a transfer student, the individual is classified as pre-nursing (008) and referred to the Department of Nursing for advising.

Registered Nurse Track

Interested students should contact the Department of Nursing at 856/225-6226 for information and an appointment with a faculty member. Each student is considered individually and a proposed course of study discussed.

The R.N. student is considered an "Advanced Placement Student" by virtue of prior education, experience, and graduation from an NLN accredited professional nursing program. It is possible for advanced placement students who have met all of the pre-nursing requirements and have passed the NCLEX, which challenges 20 credits of Nursing II and III, to finish the upper-division nursing program in one full year. Students may decide to take their course work at a slower pace.

Prerequisite Courses for the Nursing Major

(Usually takes two years to complete)

50:160:107-108 General Chemistry (4,4)
50:350:101-102 English Composition I,II (3,3)
50:520:255 Nutrition (3)
50:680:211 Microbiology and Its Application (4)
50:830:101 Introduction to Psychology (3)
50:830:325 Psychology of Childhood (3)
50:830:363 Abnormal Psychology (3)
50:920:207 Introduction to Sociology (3)
50:920:306 Sociology of the Family (3)
50:960:183 Elementary Applied Statistics (3) or 50:830:215 Statistics for Social Sciences (3)
50:990:253-254 Anatomy and Physiology (4,4)
Humanities electives (9)
Literature elective (3)

Major Requirements (Junior and Senior Years) for Generic and Transfer Students

Third Year (32 credits)

50:705:350 Nursing I (6)
50:705:351 Nursing I Clinical Laboratory (4)
50:705:355 Nursing II (6)
50:705:356 Nursing II Clinical Laboratory (4)
50:705:489 Pharmacology (3)
50:730:349 Ethics in the Health Professions (3)
50:990:357 Pathophysiology (3)
Humanities elective (3)

Fourth Year (29 credits)

50:705:411 Research in Nursing (3)
50:705:470 Nursing III (6)
50:705:471 Nursing III Clinical Laboratory (4)
50:705:475 Nursing IV (6)
50:705:476 Nursing IV Clinical Laboratory (4)
50:705:491 Issues in Nursing (3)
Humanities elective (3)

Major Requirements for Advanced Placement (R.N.) Students

50:705:358 Conceptual Foundations of Professional Practice (6)
50:705:411 Research in Nursing (3)
50:705:475 Nursing IV (6)
50:705:476 Nursing IV Clinical Laboratory (4)
50:705:489 Pharmacology (3) or 26:705:538 Pharmacodynamics for Primary Health Care (3)
50:705:491 Issues in Nursing (3)
50:730:349 Ethics in the Health Professions (3)
50:990:357 Pathophysiology (3) or 26:120:547 Pathophysiology (3)
Free elective (1–2)
Humanities electives (6)
Prescribed elective (liberal studies or women's studies) (3)

Elective Requirements

Electives used to meet degree requirements are to represent a broad range of subjects in keeping with college requirements and are to be selected in consultation with a nursing adviser. A maximum of 6 credits from any single discipline is accepted as elective credit. Courses are to be selected from anthropology, economics, fine arts, foreign language, history, philosophy, political science, religion, mathematics, and computer science.

Scholastic Standing

A grade of C or better is required in all non-nursing courses. Any course completed with less than a grade of C may
be repeated only once to improve the grade. A grade less than C in the repeated course will automatically make the student ineligible for admission into, or continuance in, the nursing major. The clinical nursing courses must be taken in the sequence listed, and minimum grades of C+ must be attained in order to progress within the curriculum.

Accreditation

This 120-credit nursing program is fully accredited by the National League for Nursing Accrediting Commission (NLNAC), 350 Hudson Street, New York, NY 10014, until December 31, 2000 (1-800 / 669-9656), and by the New Jersey State Board of Nursing, Newark, NJ.

The program also holds provisional accreditation from the newly formed Commission on Collegiate Nursing Education (CCNE). A full review is scheduled for fall 2000.

Financial Aid

There are many scholarship opportunities for nursing students. Several area hospitals and nursing agencies provide financial assistance to students in the nursing major. Students should contact the financial aid office for scholarship information and check the bulletin board in the nursing complex for posted information.

Courses

50:705:350. NURSING I (6)
Corequisite: 50:705:351 or 385. Fall, junior year.
Introduces the practice of professional nursing. The philosophy and conceptual framework of the Department of Nursing are utilized in focusing on health and wellness needs in individuals and the nurse's role in promotion and conservation of health and the prevention of disease, disability, and problems of daily living.

50:705:351. NURSING I CLINICAL LABORATORY (4)
Corequisite: 50:705:350. Fall, junior year.
A variety of laboratory settings used to apply the theory of health promotion and conservation as well as the prevention of disease, disability, and problems of daily living.

50:705:355. NURSING II (6)
Prerequisites: 50:705:350,351. Corequisite: 50:705:356. Spring, junior year.
Focuses on the care of clients throughout the life cycle who have basic alterations in health status. Stresses a multidimensional approach and encompasses the conservation of health, the prevention of illness, and the amelioration of the health status of the client. The restoration of health a major focus.

50:705:356. NURSING II CLINICAL LABORATORY (4)
Prerequisites: 50:705:350,351. Corequisite: 50:705:355. Spring, junior year.
Several clinical settings used for laboratory experience. The student applies classroom theory in caring for selected clients and searches the literature for latest findings that facilitate the delivery of health care.

50:705:358. CONCEPTUAL FOUNDATIONS OF PROFESSIONAL PRACTICE (6)
For registered nurses. Corequisite: 50:990:357 or 26:120:547.
Planned for the advanced placement student (registered nurse) as an adult learner and builds on the R.N.'s professional experiences while focusing on the socialization and transition into the role of the baccalaureate-prepared professional nurse. Importance of research and other intellectual skills to create and apply nursing knowledge stressed.

50:705:411. RESEARCH IN NURSING (3)
Prerequisites: 50:705:355,356; statistics.
Assists the student to understand the theory and process of research. Includes exploration of research designs and methods, data analysis, and the utilization of research findings. Focus on the student as a consumer of research.

50:705:470. NURSING III (6)
Prerequisites: 50:705:355,356. Corequisite: 50:705:471. Fall, senior year.
Focuses on the care of clients throughout the life cycle who have impairments in health status. Emphasis placed upon biological, psychological, sociocultural, and spiritual needs of the client adapting to the acute phase of illness. The concepts of conservation, prevention, restoration, and amelioration utilized, with the focus on restoration.

50:705:471. NURSING III CLINICAL LABORATORY (4)
Prerequisites: 50:705:355,356. Corequisite: 50:705:470. Fall, senior year.
Several clinical settings used. Students expected to reach beyond their clinical settings to the literature and to collaborate with other professionals in order to plan and implement effective care for clients.

50:705:475. NURSING IV (6)
Prerequisites: 50:705:470,471. Corequisite: 50:705:476. Spring, senior year.
Promotes independence in the practice of nursing through conceptualization of the leadership role of the professional nurse in meeting the health-care needs of various societal groups. Community aspects related to psychological, sociocultural, and spiritual influence, the influence of the health system, and the roles of health providers examined.

50:705:476. NURSING IV CLINICAL LABORATORY (4)
Prerequisites: 50:705:470,471. Corequisite: 50:705:475. Spring, senior year.
Focuses on health promotion and teaching as related to individual and group interactions. A variety of clients in community settings affords an opportunity to implement the nursing process and to collaborate with colleagues in professional practice. Students expected to be self-directed in their learning activities and to develop skills in leadership and the change process as an aid to the transition from the role of student to that of practitioner.

50:705:480. SPECIAL TOPICS (3)
Spring or fall, junior and senior years.
Focuses on selected topics; content varies by term. Topics have included history of nursing and specialized nursing practice.

50:705:489. PHARMACOLOGY (3)
Prerequisites: 50:990:253-254.
Role of nurses in promoting responsible use of chemicals to enhance health while minimizing detrimental effects. Content covers basic concepts of pharmacology, major drug groups, and their use in practice. Nursing implications stressed.

50:705:491. ISSUES IN NURSING (3)
Senior year.
An overview of issues that face the profession, including union or professional representatives, client advocacy, continuing education, moral and ethical concerns, and accountability. As new issues arise and old issues are resolved, course content is altered.

PHARMACY 720

Web Site: http://www.camden.rutgers.edu/dept-pages/pharmacy/pharmacy.html

Program Director: L.A. Burke

The university's College of Pharmacy in New Brunswick admits students directly from high school. Students admitted to the College of Pharmacy have the option of taking the first two years of academic work in Camden. Students who are admitted to the Camden College of Arts and Sciences may be able to transfer to the College of Pharmacy in New Brunswick, or another college of pharmacy, on a space-available basis. The first year's studies include 50:120:101,102 General Biology, 50:160:115-116 Chemical Principles, 50:160:125-126 Chemical Principles Laboratory, 50:350:101-102 English Composition, 50:640:121 Unified Calculus, and 50:960:183 Elementary Applied Statistics. The second year includes 50:160:335-336 Organic Chemistry, 50:220:105 Microeconomic Principles, 50:750:203-204 and 205-206 General Physics and Laboratory, human physiology, and 6 credits in the humanities or social sciences. This program can be completed only through daytime attendance.

PHILOSOPHY AND RELIGION (Philosophy 730, Religion 840)

Web Site: http://www.camden.rutgers.edu/dept-pages/philosreligion/philreli.html

Major requirements can be completed only through daytime attendance.

Department of Philosophy and Religion

Chairperson: Charles Jarrett

Professors:

Stuart Z. Charmé, B.A., Columbia; M.A., Ph.D., Chicago (Religion)
Hugh C. White (emeritus), B.A., Asbury College; B.D., Emory; Ph.D., Drew (Religion)

Associate Professors:

Clifford William Brown, A.B., A.M., Pennsylvania; Ph.D., Bryn Mawr College (Philosophy)
Charles Jarrett, B.A., Florida; M.A., Ph.D., California (Berkeley) (Philosophy)

The study of philosophy and religion offers a vital contribution to a humanistic education. Both fields deal with various ways in which human beings have tried to understand and give expression to the nature and meaning of reality, knowledge, the self, values, and the purpose of human life.

Course work in philosophy is planned to acquaint the student with the historical and systematic interrelations of the significant philosophic concepts in Western thought and to provide training in the techniques proper to the subject.

Stress is placed on philosophy as an activity, and the department aims to provide training sufficiently broad in scope and technical in procedure to equip the student with both a knowledge of important philosophical issues and the basis for developing an analytical judgment that is both critical and productive.

Course work in religion explores the incredible diversity and pervasiveness of religious life, religious experience, and religious thought throughout human history. A variety of methodological approaches is employed to familiarize students with literary, historical, philosophical, phenomenological, and social-scientific forms of analysis.

Majoring in the Department of Philosophy and Religion provides excellent preparation for graduate study in philosophy or religious studies. Majors and minors in the department also may go on to a wide variety of careers in education, law, ministry, and business.

Major Requirements

The Department of Philosophy and Religion offers a philosophy major with two tracks: (1) the philosophy track and (2) the religious studies track. The requirements for each track are as follows.

The philosophy track requires:

Courses	Credits
50:730:201 Introduction to Logic	3
50:730:301 History of Philosophy I	3
50:730:302 History of Philosophy II	3
One course in religion	3
Eight additional courses in philosophy	24
Total	36

The religious studies track requires:

Courses	Credits
50:730:201 Introduction to Logic	3
50:730:301 History of Philosophy I	3
Two additional courses in philosophy	6
Eight courses in religion	24
Total	36

Students majoring in the department should select one of these tracks in consultation with their adviser. The philosophy track is recommended for students whose primary interests are in philosophy as well as those who are considering graduate study in philosophy. The religious studies track is recommended for students whose primary interests are in religious studies as well as those who are considering graduate study in religious studies.

Any student may petition the department to substitute other courses for those on these lists.

Major requirements can be completed only through daytime attendance.

Majors are encouraged to have a competence in a foreign language equivalent to that obtained through the intermediate level of study. Majors also are urged to develop, in consultation with the adviser, a strong minor program, or even a second major.

Minor Requirements

Philosophy Minor

A minor in philosophy requires six courses (18 credits), of which at least four must be above the 100 level, and at least two must be at the 300 to 400 level.

Religion Minor

A minor in religion consists of six courses (18 credits). At least one course must be at the 100 to 200 level, and at least two must be at the 300 level.

Philosophy and Religion Minor

A minor in philosophy and religion consists of six courses (18 credits). Three of these must be in philosophy (730) and three must be in religion (840). At least four courses must be at or above the 300 level.

Courses (Philosophy 730)

50:730:111. Introduction to Philosophy (R) (3)
An exploration of philosophical problems, such as truth, justice, mind, and person, with a view to surveying the field and locating such particular philosophical specialties within it as logic, ethics, and metaphysics.

50:730:181. Problems of Identity (3)
A philosophical examination of the question, "Who am I?" Study of texts in philosophy and the human sciences augmented by awareness exercises, improvisatory enactments, and expressive artwork. The student is encouraged to confront the problem of his or her own identity.

50:730:201. Introduction to Logic (R) (3)
An introduction to modern symbolic logic, with an emphasis on methods for the evaluation and construction of deductive arguments, and on the concepts of validity, consistency, and implication. Topics selected from among the following: informal fallacies, logic and ordinary language, induction, the scientific method, the logic of Aristotle, and the relation between logic and other areas in philosophy.

50:730:226. Ethics (3)
An examination of the quest for certainty with respect to the nature of human goodness, including the relation of duty to pleasure and happiness, the nature of moral obligation and responsibility, the resolution of conflicts between individual and social values, and the possibility of objective justification of value judgments.

50:730:256. Philosophy of Literature (3)
An exploration of philosophical questions about literature, including interpretation in criticism, the nature of critical evaluation, truth in fiction, and metaphor. Specific literary work selected to serve as a base for the discussion of these philosophical issues.

50:730:260. Ethics and Business (3)
An examination of basic questions and perplexities of commercial and corporate life. Are the economic imperatives of free enterprise compatible with ethical imperatives of brotherliness? Are there some ethical principles so general that they are applicable in every case? Can one be good at business and also be a good person? Can conflicts among duties to family, company, and self be resolved? Contemporary case studies augmented with basic texts in ethics.

50:730:301. History of Philosophy I (R) (3)
The beginnings and early developments of Western philosophy. Readings selected from among the pre-Socratics, Plato, Aristotle, Maimonides, Aquinas, and Occam. Topics may include the nature of argument, political loyalty and political dissent, justice, normative ethics, causality, and the existence of God.

50:730:302. History of Philosophy II (R) (3)
The career of philosophy from its modern beginnings in Descartes. Readings selected from the classical modern period, from Descartes through Kant, and also from such contemporary approaches as existentialism and analytic philosophy. Topics include the relationship between mind and body, the origins and extent of human knowledge, skepticism and belief, and the meaning of personal identity.

50:730:303. Advanced Topics in Medieval Philosophy (3)
An in-depth study of the important thinkers and philosophical positions of the Middle Ages. Special attention given to the writings of Aquinas, Duns Scotus, and William of Occam, but readings from the Augustinian tradition and major Jewish and Islamic philosophies also included.

50:730:305. Advanced Topics in Ancient Philosophy (3)
A study of the major philosophers in the ancient world with particular emphasis on Plato and Aristotle. Research and discussion of basic texts and the relationships between philosophical ideas and scientific, political, and religious currents in the Greek world.

50:730:307. The Background of Contemporary Philosophy (3)
Movements in nineteenth-century philosophical thought. Readings from such philosophers as Hegel, Marx, Nietzsche, and Kierkegaard.

50:730:308. Contemporary Philosophy (3)
Concentration on the existentialist and analytic traditions, with attention also given to such philosophers as Bergson and Whitehead.

50:730:313,314. Rationalism and Empiricism: Philosophy in the Seventeenth and Eighteenth Centuries (3,3)
Critical examination of major works selected from the following: Descartes, Malebranche, Spinoza, Locke, Leibniz, Berkeley, Hume, and Kant. Course content varies from year to year, either by dealing primarily with particular issues (metaphysics, ethics, or aesthetics) or by dealing primarily with the works of one philosopher.

50:730:315,316. Some Contemporary Moral Issues (3,3)
A consideration of such issues as prejudice and discrimination, abortion and fetal research, poverty and hunger, crime and punishment, war and death, suicide and euthanasia.

50:730:319. Modern Social and Political Philosophy (3)
Critical examination of the philosophical problems involved in theories of the state and society. Topics include the nature and justification of political obligation, civil disobedience, violence, natural rights, and justice.

50:730:320. Philosophy of Law (3)
Introduction to philosophical issues concerning the nature of law and its relations to morality and to power. Focuses on the concepts of justice and punishment, the function of law, and types of legal argument. Legal materials include cases drawn from constitutional law, contracts, torts, and criminal law.

50:730:326. Philosophy of Religion (3)
An exploration of religious issues which are live options. Examples: Do science and reason leave any room for faith? Without a belief in a supreme being who is supremely good, is life pointless? Can an atheist be moral? Can God's existence, or human immortality, be proven? Do religious experiences occur, and do they prove anything?

50:730:327. Women and Philosophy (3)
A critical examination of traditionalist and feminist views concerning sex differentiation and its philosophical implications for ethical, political, and psychological theories, and for such particular issues as oppression, woman's nature, the meaning of equality, and the role of the family.

50:730:332. Intermediate Logic (R) (3)
Prerequisite: 50:730:201 or permission of instructor.
A continuation of 50:730:201, with an emphasis on application. Predicate logic with identity, soundness, and completeness. Topics selected from among axiomatic theories, nontruth-functional logics (such as modal, deontic, and epistemic), set theory, and issues in the philosophy of logic and language.

50:730:334. Philosophy of Science (3)
Examination of major philosophical issues concerning science. Topics selected from among science and pseudoscience; scientific explanation, method, theories, laws, falsification; scope and limits of science; revolutions in science; science and ethics.

50:730:344. Existentialism and Phenomenology (3)
(Formerly 50:730:418)
An examination in the historical setting of Husserl's phenomenology and such philosophers as Kierkegaard, Nietzsche, Heidegger, Jaspers, Buber, Marcel, Sartre, and Merleau-Ponty.

50:730:349. Ethics in the Health Professions (3)
An examination of ethical theories and their application to such issues in the health professions as abortion, lying, animal experimentation, insanity, moral evil, and justice. Emphasis varies from year to year.

50:730:361. Philosophy of Art (3)
A study of selected texts on the philosophy of art from the Greeks to contemporary writers, with the purpose of investigating the relationships among the arts, and the status of art and the aesthetic judgments as modes of discovery and communication.

50:730:367. American Philosophers (3)
Examination of the principal philosophers in nineteenth- and twentieth-century America. Critical discussion of the transcendentalists, the idealists, Pierce, James, Dewey, and Whitehead.

50:730:412. Theory of Knowledge (3)
Prerequisites: Four courses in philosophy, including 50:730:415, or permission of department.
An investigation of what it means to know. Topics include theories of meaning, evaluation of evidence, the meaning of and criteria for truth, and the nature of belief.

50:730:415. Metaphysics (3)
Prerequisites: Four courses in philosophy or permission of department.
A study of the major problems of metaphysical theory, focusing on modes of existence and the presuppositions, methodologies, and consequences of different metaphysical systems.

50:730:417. Analytic Philosophy (3)
Examination of methods of analysis as they appear in such writers as Russell, Moore, Wittgenstein, and Carnap, and in contemporary linguistic philosophy.

50:730:418. Philosophy of Mind (3)
Critical examination of the mind-body problem and various proposed solutions. Topics selected from among immortality, freedom, artificial intelligence, parapsychology, psychological theories, the unconscious, reasoning, emotions, and intentions.

50:730:430. Advanced Logic (3)
Prerequisite: 50:730:332 or (with permission of instructor) 50:730:201.
Topics from among such "deviant" logics as many-valued and intuitionistic logics, foundations of mathematics, paradoxes, nontruth-functional logics, and issues in the philosophy of language and logic.

50:730:451,452,453,454,455,456. Advanced Seminar in Philosophy (3,3,3,3,3,3)
Prerequisites: Four courses in philosophy or permission of department.
The focus could be either a concentrated study of a particular text, philosopher, or school of thought, or an examination of a particular philosophical concept, methodology, or problem.

50:730:495,496. Independent Study in Philosophy (BA,BA)
Prerequisite: Permission of department.
An individual reading and research project under the guidance of a member of the philosophy department in an area of interest to the student.

Courses (Religion 840)

50:840:103. Introduction to Religion (R) (3)
A general introduction to the basic religious concerns of humanity, and the ways in which religions have developed in Eastern and Western history, giving intellectual, moral, and institutional expression to the meaning of human existence.

50:840:108. Religion and Contemporary Culture (3)
The interaction between religion and selected aspects of contemporary culture including technology, the natural and social sciences, art, and philosophy.

50:840:110. INTRODUCTION TO THE BIBLE AND ITS INTERPRETERS (R) (3)
Historical background and basic literary content of the portions of the Tanach (Old Testament) and New Testament that have had the most lasting influence on Western culture. Focus on the ways
in which the Bible has been interpreted in Western history.

50:840:211. HISTORY OF RELIGIONS: THE EASTERN EXPERIENCE (3)
A historical and comparative study of the religions of Hinduism, Buddhism, Taoism, Confucianism, and Shinto and their expressions in the cultures of India, China, and Japan.

50:840:212. JEWS, CHRISTIANS, AND MUSLIMS (3)
The historical development of Judaism, Christianity, and Islam from the earliest roots in the myths and rituals of the ancient world to their modern forms. The interaction between each tradition and the cultural context in which it emerges and develops. The popular expression of each religion's beliefs in its holidays, rituals, and legends.

50:840:216. THE BLACK CHURCH (3)
The effects of American enslavement on the religious and social institutions of the African people and the development of religious beliefs and institutions within the black community in the United States. The relationship between the black and white religious institutions and the role of religion in the development of black political consciousness.

50:840:307. RELIGION IN CONTEMPORARY AMERICA (3)
An investigation of some of the major religious issues which have emerged in recent years in American culture. Protestant, Catholic, Jewish, and black representatives studied; the influence of Eastern religions and extradenominational manifestations of religious concern examined.

50:840:312. CONTEMPORARY RELIGIOUS THOUGHT (3)
Prerequisites: 50:840:212 or 50:730:301, 302 or permission of instructor.
Major trends in current Jewish, Catholic, and Protestant theology as related to developments in modern thought.

50:840:323. BIBLICAL STUDIES: TANACH (OLD TESTAMENT) (3)
Introduction to modern literary and historical methods of the study of the Tanach, and development of an understanding of the religious and cultural contributions of ancient Israel through investigation of representative writings.

50:840:324. BIBLICAL STUDIES: NEW TESTAMENT (3)
A critical analysis of the New Testament and contemporary methods of interpretation with special emphasis on the problem of the historical Jesus.

50:840:325. MYTH AND SYMBOL (3)
Comparative studies of the creation myths and hero myths of selected Eastern, Middle Eastern, European, Native American, and African cultures. Attention given to the religious worldview, the psychological and social implications, and the symbolic forms of expression of each. Various methodologies for the study of myth investigated.

50:840:327-328. LECTURE SERIES IN RELIGION (3,3)
Prerequisite: Permission of instructor.
Visiting lecturers speak on a central topic selected by the religion department. Students participate through attendance at the lectures, prescribed background reading under the direction of a faculty member, and submission of a paper.

50:840:330. WOMEN AND RELIGION (3)
An examination of the image of women and the feminine in the myths, symbols, and theology of major religious traditions. Consideration given to the status and role of women in relation to the issues of religious practice, participation in rituals, and ordination. Finally, a look at feminist options for women's changing image and role in religion.

50:840:332. ANTI-SEMITISM AND THE HOLOCAUST (3)
An investigation into the nature and historical development of anti-Semitism in general and Nazism in particular. Examination of specific stages of Nazi genocide as well as implications for modern religion, theories of human nature, and situations we may confront in the future. Integrates material from history, psychology, ethics, theology, and literature in order to evaluate possible responses.

50:840:335. CONTEMPORARY ETHICS: EAST AND WEST (3)
The value systems embodied in the myths, rituals, and traditions of the major world religions examined in light of their influence on the formation of personal identity. The relation of traditional ethics compared to modern ethical theory. Specific contemporary issues analyzed, such as racism, sex, abortion, gender discrimination, divorce, pacifism, civil disobedience, ecological destruction, and genetic manipulation.

50:840:337. RELIGION AND PSYCHOLOGY (3)
Survey of different approaches to the psychological interpretation of religious phenomena, such as images of God, myths and legends, rituals, mysticism, faith healing, meditation, and conversion experiences. The works of Freud, Jung, and others considered.

50:840:343. PROPHECY: ANCIENT AND MODERN (3)
Phenomenological analysis of ancient modes of thought about the future, such as prophecy (primitive, biblical), astrology, techniques of prediction (e.g., the I Ching), and dream interpretation. Such modes traced through selected historical examples in Western tradition to their emergence in the modern period. Criteria for evaluating contemporary modes of thought about the future: culture criticism (J. Ellul), social planning, astrology, and mystical prediction.

50:840:373. CONTEMPORARY JUDAISM (3)
A study of the development of Judaism in America and an analysis of the major religious issues of modern Judaism as expressed by major Jewish thinkers. Topics include contemporary attitudes toward God and Torah, Israel and Zionism, the Holocaust and the death of God, the dialogue of Judaism and Christianity, the challenge of secularism, and the Jew in modern literature.

50:840:389,390. INDEPENDENT STUDY (3,3)
Advanced students pursue a research topic under the direction of a faculty member, culminating in a paper.

50:840:393. SPECIAL TOPICS IN RELIGION (3)

PHYSICS 750

Web Site: http://www.camden.rutgers.edu/dept-pages/physics/index.html

Department of Physics

Chairperson: L. John Gagliardi

Professor:

E. Roger Cowley, B.A., M.A., Ph.D., Cambridge

Associate Professors:

L. John Gagliardi, B.S., Villanova; M.A., Ph.D., Temple
Paul Mazur, A.B., Temple; Ph.D., Maryland

Assistant Professor:

Huaxiang Fu, B.S., University of Science and Technology (China); M.S., Ph.D., Fudan

Assistant Instructors:

Scott J. Gurfinkiel, B.S., Rutgers; M.S., Drexel
Richard Medrala, B.S., M.S., Rutgers

Major Requirements

A physics degree opens up a rich diversity of options to the graduating student. Approximately one-half of physics graduates go on to graduate school. Those not going on

to graduate school enter employment in physics or such related fields as electronics, computers, or engineering, or as teachers. Reflecting the diversity of the major, there are two tracks open to physics undergraduates. The first option is the traditional one and is intended for those who are interested in experimental and theoretical physics as well as computational physics, and those who will be going on to graduate school. The second option emphasizes the application of computers to physics. A combination of skills in both physics and computer science is a valuable training for industrial employment.

In each of the options, students must achieve a grade-point average of at least 2.0 in physics and mathematics courses. When a course has an associated laboratory, the student must take both the lecture course and the laboratory concurrently, unless prior permission has been obtained from the department chairperson. Students should be aware that certain 300- and 400-level courses may be offered only in alternate years.

Students seeking teacher certification in physics must complete the requirements for the major in physics as well as satisfying other requirements for certification. Either track in the physics program may be followed. For details regarding admission to the teacher education program and its requirements, students should consult the education department.

The requirements for the first two years of both tracks are almost identical to those of the pre-engineering program (005), giving the student three options during the first two years. The required courses are:

First Year

First Term

50:640:121 Unified Calculus I (4)
50:750:131 Elements of Physics I (3)
50:750:133 Elements of Physics Laboratory I (1)

Second Term

50:198:151 Introduction to Programming Methods Using FORTRAN (3)
50:640:122 Unified Calculus II (4)
50:750:132 Elements of Physics II (3)
50:750:134 Elements of Physics Laboratory II (1)

Sophomore Year

First Term

50:160:115 Chemical Principles I (3)
50:160:125 Chemical Principles Laboratory I (1)
50:640:221 Unified Calculus III (4)
50:750:233 Electric Circuits I (3)
50:750:253 Mechanics I (3) *

Second Term

50:160:116 Chemical Principles II (3)
50:160:126 Chemical Principles Laboratory II (1)
50:640:314 Elementary Differential Equations (3)
50:750:232 Elements of Modern Physics (3)

Students electing the traditional physics option should take 50:640:250 Linear Algebra; 50:198:111 can be substituted for 50:198:151.

The two physics tracks differ in the junior year, although there is still considerable overlap and flexibility.

* Primarily deals with statics.

Traditional Physics Option

Junior Year

First Term

50:750:301 Electromagnetic Theory (3)
50:750:307 Electronics (3)
50:750:311 Electronics Laboratory (1)
50:750:351 Thermal Physics I (3)

Second Term

50:750:302 Electromagnetic Waves and Optics (3)
50:750:309 Analytical Mechanics (3)
50:750:352 Thermal Physics II (3)

Senior Year

First Term

50:750:408 Advanced Physics Laboratory (2)
50:750:413 Elements of Quantum Mechanics I (3)

Second Term

50:750:409 Advanced Physics Laboratory (2)
50:750:414 Elements of Quantum Mechanics II (3)

50:750:406 Introduction to Solid-State Physics may be substituted for 50:750:309.

Computational Physics Option

Junior Year

First Term

50:750:307 Electronics (3)
50:750:311 Electronics Laboratory (1)
50:750:351 Thermal Physics I (3)

Second Term

50:750:309 Analytical Mechanics (3)
50:750:352 Thermal Physics II (3)
50:750:354 Physics Computer Laboratory (3)

Senior Year

First Term

50:750:301 Electromagnetic Theory (3)
50:750:417 Computational Physics I (3)

Second Term

50:750:302 Electromagnetic Waves and Optics (3)
50:750:418 Computational Physics II (3)

50:750:406 Introduction to Solid-State Physics may be substituted for 50:750:309. 50:750:235, 50:640:363, and 50:640:364 are strongly recommended, but are not required. 50:640:237 Discrete Mathematics and 50:198:113 Programming with Data Structures will be substituted for 50:160:115-116 Chemical Principles.

Minor Requirements

The physics department offers a minor, subject to the general rules on minors. Course 50:100:306 Descriptive Astronomy may be counted toward the minor, but may not be used as a 300-level course in satisfaction of the requirements for the minor.

Departmental Honors Program

The physics department maintains a strong honors program. Senior majors with a 3.0 average overall and 3.3 in physics and mathematics are urged to enroll in the departmental honors program. Honors students must take two honors seminars. Typically, this will involve a year of studies on a research topic assigned by a faculty member. Successful completion of the honors requirements entitles

the student to graduate with Honors in Physics, which is recorded on the student's transcript. Dr. Roger Cowley is the departmental honors adviser.

Courses

50:750:103. PHYSICS FOR POETS (R) (3)
No prerequisite. Designed for nonscience majors.
Illustrations from areas such as sports, music, and archaeology used to show the physicist's way of looking at things. The major principles of physics applied in a descriptive way to the understanding of societal problems such as the "energy crisis." Recent discoveries in the different areas of physics, including particle physics and astrophysics, discussed.

50:750:131-132. ELEMENTS OF PHYSICS I,II (R) (3,3)
Corequisites: 50:640:121-122; 50:750:133-134. Intended for physics majors and engineering students, but open to other qualified students.
A calculus-based introduction to classical physics: mechanics, heat, wave motion, sound, electricity, and light.

50:750:133-134. ELEMENTS OF PHYSICS LABORATORY I,II (R) (1,1)
Corequisites:50:750:131-132.
The laboratory illustrates phenomena and concepts studied in 50:750:131-132.

50:750:171,172. TOPICS IN PHYSICS (2,2)
The subject matter changes depending on the interests of the instructor and the students. Sample topics: the energy crisis and sources of energy or the physics of the atmosphere and weather forecasting.

50:750:203-204. GENERAL PHYSICS I,II (R) (3,3)
Corequisites: 50:750:205-206. For biology, chemistry, premedicine, predentistry, and preveterinary medicine students, but may be taken by others.
An introduction to mechanics, heat, wave motion, sound, light, electricity and magnetism, and selected topics from modern physics.

50:750:205-206. GENERAL PHYSICS LABORATORY I,II (R) (1,1)
Corequisites:50:750:203-204.
Illustrates phenomena and concepts studied in 50:750:203-204.

50:750:223. PRINCIPLES OF PHYSICS FOR PHARMACY (4)
Prerequisite: 50:640:121 or 122.
A survey of physics with special reference to applications in pharmacy. Topics chosen from mechanics, thermodynamics, wave motion, electricity and magnetism, electromagnetic waves (including light), and modern (atomic and nuclear) physics.

50:750:232. ELEMENTS OF MODERN PHYSICS (3)
Prerequisite: 50:750:132. Corequisite: 50:640:314.
Topics from special relativity, quantum theory, atomic physics, molecules, statistical physics, solid-state physics, nuclear physics, and elementary particles.

50:750:233-234. ELECTRIC CIRCUITS I,II (3,3)
Prerequisites: 50:640:121,122. Corequisites: 50:750:235-236.
DC and steady-state AC circuit analysis, network theorems, matrix methods, two ports, controlled sources, nonlinear elements, transients, step and impulse response, and computer methods.

50:750:235-236. ELECTRIC CIRCUITS LABORATORY I,II (1,1)
Corequisites:50:750:233-234.
Laboratory exercises to accompany and illustrate 50:750:233-234.

50:750:237. COMPUTER ORGANIZATION AND LOGIC DESIGN (3)
Prerequisite: 50:198:151.
Number systems, Boolean algebra, medium scale integration circuits, logic minimization, state machines, clocked circuits; the Von Neumann model of a computer.

50:750:253-254. MECHANICS I,II (3,3)
Prerequisites: 50:750:132 and 50:640:122.
Equilibrium of planar and spatial systems, analysis of structures, friction, centroids and moments of inertia, virtual work, dynamics of particles, and rigid bodies.

50:750:291. MECHANICS OF MATERIALS (3)
Prerequisite: 50:750:253.
Stress and strain in elastic solids such as shafts and beams. Combined stresses; statically indeterminate beams.

50:750:301. ELECTROMAGNETIC THEORY (3)
Prerequisites: 50:750:232 and 50:640:314.
Electrostatic field, dielectrics, steady currents, magnetic fields and materials, and electromagnetic induction.

50:750:302. ELECTROMAGNETIC WAVES AND OPTICS (3)
Prerequisite: 50:750:301.
Maxwell's equations, electromagnetic waves, radiation, guided waves, dispersion, reflection, refraction, interference, polarization, and optics of solids.

50:750:304. INTRODUCTION TO ASTROPHYSICS (3)
Prerequisites: 50:640:122 and 50:100:306.
Presents, at a calculus-based level, a survey of such topics from current astronomy as planetary atmospheres, the greenhouse effect, solar wind and its interaction with the earth's magnetic field, Van Allen radiation belts, some aspects of cosmology (the red shift, models of the evolving universe, tests of relativistic cosmological models), the interstellar medium, and an introduction to the theory of stellar atmospheres and stellar evolution. The present theories of pulsars, quasars, supernovae, neutron stars, Seyfert galaxies, and black holes analyzed.

50:750:307. ELECTRONICS (3)
Prerequisite: 50:750:132 or 204 or permission of instructor.
Corequisite: 50:750:311.
DC and AC networks, signal characteristics and acquisition, transistors, feedback, operational amplifiers, power supplies, noise, digital circuits, instrumentation, computer interfacing, and optimization of measurements.

50:750:308. COMPUTER HARDWARE AND INTERFACING (3)
Prerequisites: 50:198:111 or 151, and 50:640:237. Corequisite: 50:750:312.
Introduction to digital logic, combinational circuits, sequential circuits. Introduction to microprocessor architecture and organization, operation and programming, interfacing and application of microprocessors.

50:750:309,310. ANALYTICAL MECHANICS (3,3)
Prerequisites: 50:750:132 and 50:640:314.
Particle dynamics, simple harmonic motion, central forces, statics and dynamics of rigid bodies, waves, and Lagrange's and Hamilton's equations.

50:750:311. ELECTRONICS LABORATORY (1)
Corequisite: 50:750:307.
Laboratory exercises to accompany and illustrate 50:750:307.

50:750:312. COMPUTER HARDWARE AND INTERFACING LABORATORY (1)
Corequisite: 50:750:308.
Laboratory exercises to accompany and illustrate 50:750:308.

50:750:317-318. DIGITAL SYSTEMS AND MICROPROCESSORS I,II (3,3)
Prerequisite: 50:750:307. Corequisites: 50:750:319-320.
Digital electronic systems, introduction to microsystems, microprocessor architecture and organization, and operation and programming. Configuring microprocessor systems, interfacing, and applications of microprocessors.

50:750:319-320. DIGITAL SYSTEMS AND MICROPROCESSORS LABORATORY I,II (1,1)
Corequisites: 50:750:317-318.
Laboratory exercises to accompany and illustrate 50:750:317-318.

50:750:351-352. THERMAL PHYSICS I,II (3,3)
Prerequisites: 50:750:232 and 50:640:221.
Temperature-dependent properties of gases, liquids, and solids, such as specific heat, vapor pressure, dielectric constant, internal energy, entropy, compressibility, and conductivity. Presents classical thermodynamics, which derives relations between various quantities, and statistical methods used to derive classical thermodynamics from the atomic point of view. Presents Brownian motion, random walks, and fluctuation. Gives applications of the second law to the production and uses of energy.

50:750:354. PHYSICS COMPUTER LABORATORY (3)
Prerequisites: 50:640:314 and 50:750:232.
Use of the computer to solve problems in many areas of physics, including numerical integration of Newton's Laws and Gauss's Law, electric circuit analysis, and mechanics.

50:750:374. ENERGY AND ENVIRONMENT (3)
The physics, economics, and polluting properties of the three conventional power sources: coal, oil, and natural gas (including gasification of coal and oil shale). Studies solar power and discusses conservation of energy in home and industry. Considers the more important advantages and shortcomings and the environmental impacts of aspects of wind, tidal, geothermal, and magneto-hydrodynamic power; the hydrogen economy; and nuclear power, including fusion. Where appropriate, considers the possible use of these in transportation systems. Gives causes of energy crises and proposes various suggestions for a national energy policy.

50:750:406. INTRODUCTION TO SOLID-STATE PHYSICS (3)
Prerequisites: 50:750:232 and 50:640:314.
Classifications of solids, ionic crystals, dielectric properties, modern electron theory of metals, semiconductors, and insulators. Topics include band theory, cohesion, specific heats, electrical and thermal conductivities, the hall effect, semiconductor physics, magnetic phenomena, electronic processes in ionic crystals, dislocation theory and electron spin resonance, imperfections, superfluidity, and superconductivity.

50:750:408-409. ADVANCED PHYSICS LABORATORY (2,2)
Lab. 6 hrs. Prerequisite: 50:750:232.
Students develop good experimental technique and become familiar with the capabilities and limitations of modern laboratory equipment. Experiments performed in all fields of physics including electricity and magnetism, optics, and atomic and nuclear physics.

50:750:413-414. ELEMENTS OF QUANTUM MECHANICS I,II (3,3)
Prerequisites: 50:750:232 and 50:640:314.
Probability waves, Schrödinger and Klein-Gordon equations, eigenvalues, eigenfunctions, wave packets, unitary and hermitean operators, matrix elements, commutation relations, perturbation theory, radiative transitions, and scattering theory.

50:750:417. COMPUTATIONAL PHYSICS I (3)
Prerequisite: 50:750:354.
Applications of the computer to the solution of large-scale problems in physics including the numerical solution of the differential equations of electromagnetic theory, integration of the Schrödinger equation for realistic problems, and applications of matrix methods to problems in mechanics and engineering.

50:750:418. COMPUTATIONAL PHYSICS II (3)
Prerequisite: 50:750:354, Continuation of 50:750:417.
Emphasis placed on the application of computer simulation techniques, including the Monte Carlo method, to problems in statistical physics (especially the subject of phase transitions) and other areas of interest.

50:750:420. ADVANCED EXPERIMENTAL PHYSICS (2)
Lec. 1 hr., lab. 3 hrs. Prerequisite: Permission of instructor.
Experiments in electricity, optics, heat, and atomic phenomena, with particular emphasis on the effect of the instruments or the experimental method on the results.

50:750:453. PHYSICS SEMINAR (2)
Prerequisite: Permission of instructor.
Members prepare and present papers on topics of interest in physics.

50:750:463-464. MATHEMATICAL PHYSICS (3,3)
Prerequisites: 50:750:232 and 50:640:314.
Mathematical techniques used in advanced work in the physical sciences. Covers determinants, matrices, ordinary and partial differential equations, boundary and eigenvalue problems, Fourier-series and integrals, transform theory, orthogonal functions, complex variables. Extensive problem work.

50:750:489,490. INDEPENDENT STUDIES (BA,BA)
Prerequisites: Senior status and permission of instructor.

50:750:495,496. HONORS PROGRAM IN PHYSICS (3,3)

PHYSIOLOGY 760

See Biological Sciences.

PLANT PHYSIOLOGY 780

See Biological Sciences.

POLITICAL SCIENCE 790

Web Site: http://www.camden.rutgers.edu/dept-pages/polisci/index.html

Major requirements in political science can be completed through either daytime or evening attendance.

Department of Political Science

Chairperson: Arthur Klinghoffer

Professors:

James A. Dunn, B.A., LaSalle; M.A., Ph.D., Pennsylvania
Richard Harris, B.A., Duke; M.A., Hofstra; Ph.D., Pennsylvania
Arthur Klinghoffer, B.A., Michigan; M.A., Ph.D., Columbia
G. Alan Tarr, B.A., Holy Cross; M.A., Ph.D., Chicago

Associate Professors:

Mary C. Carras (emerita), B.A., CUNY (Hunter); Ph.D., Pennsylvania
Russell S. Harrison, A.B., Duke; Ph.D., North Carolina (Chapel Hill)
Kim E. Shienbaum, B.A., Leeds; M.S., London School of Economics; Ph.D., New York

Assistant Professor:

Sharon Gramby-Sobukwe, A.B., Duke; M.P.A., Pennsylvania; Ph.D., Temple

The Department of Political Science offers a wide range of courses that students have found useful in preparation for careers in law, government service, and public affairs, as well as for graduate studies in political science and public policy. The department curriculum is designed to provide an in-depth understanding of politics and government in the United States, foreign countries, and the international system. Courses are equally valuable for career-oriented majors and for students interested in developing a well-rounded liberal arts background.

Major Requirements

The major requires the completion of thirteen courses (39 credits) including 50:790:101 Introduction to Politics and at least two courses from each of the three areas of concentration: American Politics and Public Policy, International Politics, and Political Theory and Methodology. These seven courses must be in-classroom courses and may not include internships, independent study, study abroad trips, etc. Courses that are not taken in-classroom count toward the 39 credits to complete the major, but a student may take no more than 9 of these credits. 50:790:394 Honors Research may be taken in addition to these 9 credits. Only grades of C or better will count toward fulfillment of the requirement for all 39 credits toward the major, and at least 15 of these credits must be taken at Rutgers.

Minor Requirements

Nonmajors have a choice of three possible minors:

General Political Science

The requirements are 50:790:101 Introduction to Politics, one course (3 credits) in each of the three areas of concentration, plus any two additional courses within the department.

International Politics

This program helps the student develop expertise and specialized knowledge in international politics, foreign policy, and foreign area studies. The requirements are six courses (18 credits) from the International Politics concentration list.

Public Administration and Government Service

This program provides the student with a core of courses and an internship experience, both dealing with public policy and management. While the program is geared for career-minded students, it stresses the importance of acquiring a sensitivity to ethical values and the political context in which public policy is made. The requirements are as follows:

1. 50:790:342 Principles of Public Administration
2. Four courses (12 credits) in American Politics and Public Policy, in addition to 50:790:342
3. An internship arranged under either 50:790:296 Practical Politics or 50:790:397 Individual Internship in Political Science

Concentrations

The courses included in each area of concentration are as follows:

American Politics and Public Policy

50:790:103 Basic Urban Issues (3)
50:790:205 American State and Local Government (3)
50:790:215 Introduction to American Politics (3)
50:790:242 Urban Social Ecology (3)
50:790:307 Public Policy Analysis (3)
50:790:308 New Jersey Politics (3)
50:790:323 The Legislative Process (3)
50:790:331 Urban Policy and Economic Development (3)
50:790:332 Urban Political Systems (3)
50:790:333 The CIA and American Intelligence (3)
50:790:340 Urban Planning (3)
50:790:342 Principles of Public Administration (3)
50:790:343 Administrative Law and Public Policy (3)
50:790:346 Urban Legal Problems (3)
50:790:351 Political Parties in the United States (3)
50:790:352 Voting and Opinion (3)
50:790:356 Women and Politics (3)
50:790:360 Urban Public Policy (3)
50:790:363 Politics of Intergovernmental Relations (3)
50:790:364 Politics of Minority Groups (3)
50:790:381 Judicial Process (3)
50:790:401 American Constitutional Development (3)
50:790:407 The American Presidency (3)
50:790:409 Law and American Civilization (3)
50:790:414 The Supreme Court as a Political Institution (3)
50:790:422 Politics, Business, and American Capitalism (3)
50:790:434 Government, Business, and American Politics (3)
50:790:442 Human Freedoms and the Constitution (3)
50:790:447 Critical Issues in American Government (3)
50:790:456 Public Sector Personnel Policy (3)

International Politics

50:790:210 Introduction to Comparative Politics (3)
50:790:211 Introduction to International Politics (3)
50:790:305 Government and Politics of Western Europe (3)
50:790:311 Government and Politics of Latin America (3)
50:790:316 Government and Politics of the Far East (3)
50:790:318 Comparative Public Policy (3)
50:790:320 Problems in Contemporary American Foreign Policy (3)
50:790:322 Problems in Contemporary International Politics (3)
50:790:324 World Communism (3)
50:790:328 Comparative Politics of Developing Nations (3)
50:790:330 Comparative Politics of Eastern Europe (3)
50:790:335 Government and Politics of Sub-Saharan Africa (3)
50:790:336 Government and Politics of the Middle East (3)
50:790:337 Government and Politics of South and Southeast Asia (3)
50:790:338 Government and Business in the International System (3)
50:790:380 Government and Politics of the Former Soviet Union (3)
50:790:387 International Law and Organization (3)
50:790:395 Formulation of American Foreign Policy (3)
50:790:420 Seminar on War and Peace (3)
50:790:425 Modernization and the Third World (3)
50:790:469 Rich Nations/Poor Nations (3)

Political Theory and Methodology

50:790:304 Politics and Culture (3)
50:790:350 Violence, Revolution, and Terrorism (3)
50:790:371 Classical Political Theory (3)
50:790:372 Modern Political Theory (3)
50:790:375 American Political Thought (3)
50:790:390 Empirical Political Theory (3)
50:790:391 Quantitative Methods in Political Science (3)
50:790:413 Political Methodology (3)
50:790:416 Seminar in Political Development (3)
50:790:421 Theory and Practice of Marxism (3)
50:790:480 Radical Politics (3)

Note: Other courses can be assigned to a field of concentration depending on (1) their content and (2) special permission from the department chair, which normally requires a letter from the instructor specifying the field of concentration. These include:

50:790:489,490 Studies in Political Science (3,3)
50:790:495,496 Honors Seminar (3,3)

Departmental Honors Program

The department maintains a strong and active honors program. Junior and senior majors with at least a 3.0 average overall and in political science are urged to apply for the departmental honors program. Forms are available from the department secretary.

Honors students must take one Honors Seminar (50:790:495,496) and write a thesis in conjunction with 50:790:394 Honors Research. In addition, honors students must take a second honors seminar or do research and readings as part of 50:790:347 Current Readings in Political Science. To graduate with honors, a student therefore must successfully complete three honors courses. Graduation with honors is recorded on a student's transcript, and an award will be given each year to the student writing the best honors thesis.

Outstanding political science majors are eligible for induction into Pi Sigma Alpha, the political science national honor society. The department also annually bestows several Jack Marvin Weiner Memorial awards and the Robert Packard Memorial Scholarship Award.

Prelaw Advising

Dr. G. Alan Tarr, a member of the Department of Political Science, is the prelaw adviser for Rutgers–Camden and faculty adviser to the Prelaw Society. As political science is a particularly good major for students planning to attend law school, the department maintains an up-to-date file of law school bulletins and other materials for student use.

Government Service Internship Advising

Those students minoring in public administration and government service (see above for program description) must complete an internship in government service. This may be fulfilled through work and study in a public agency, office, or program. Dr. Russell Harrison coordinates these internships and advises the interns for the department.

Those students interested in working for the federal government in the area of global studies (State Department, Defense Department, CIA, Peace Corps, etc.) should contact Dr. Arthur Klinghoffer for advice.

Bachelor of Arts in Political Science and Master of Public Administration Program (B.A./M.P.A.)

This accelerated, dual-degree program at Rutgers–Camden is designed to graduate students with a master's degree in as little as five years. The combined Bachelor of Arts in Political Science and Master of Public Administration in the Graduate Department of Public Policy and Administration prepares students for professional careers in government and public service or for further study in law or doctoral programs. It also provides the training and credentials necessary for career advancement in the public sector. Whether one wishes to move directly into the job market or to pursue another degree, the master's degree provides a clear, competitive edge.

Admission

Since students in this innovative program begin the transition to graduate studies in their fourth undergraduate year, highly motivated individuals with strong academic records should consider this option. Individuals come from a variety of backgrounds including: (1) traditional four-year undergraduates, moving directly from high school to Rutgers, (2) transfer students from community colleges, and (3) professionals holding associate degrees and working in the public sector. In the case of a student returning to college, professional experience is considered in the admission.

Requirements

Ordinarily, earning a B.A. and an M.P.A. at Rutgers–Camden requires six years and 162 credits (120 undergraduate and 42 graduate credits) of full-time study. Under this accelerated program, the same result is achieved in five years with 150 credits, by counting some courses for the M.P.A. as well as the B.A.

Once accepted into the B.A./M.P.A. program, admission to the master's program is guaranteed, provided that a student maintains a 3.0 average and satisfactorily completes the three prerequisite courses in American government, statistics, and economics. This must occur during the first term of the student's fourth year, at which time she/he formally files an application to the M.P.A. program and is cleared to begin graduate studies the following term.

Our nationally accredited degree of Master of Public Administration has provided hundreds of students with a first-class education, extensive contacts with our alumni at all levels of government, a pathway to law school, career advancement, and preparation for doctoral study. With concentrations in public management, health-care management, and policy, run with the University of Medicine and Dentistry of New Jersey, and a nationally acclaimed international development administration concentration run with the Peace Corps, the M.P.A. program assures a stimulating educational experience for all of our students. Since 1991, four of our students have been selected, through a national competition, for the highly prestigious Presidential Management Internship Program, thirteen have gone on to law school, and six have enrolled in nationally recognized Ph.D. programs. By far, however, the majority of Rutgers–Camden M.P.A. graduates have entered or further enhanced their careers in public service.

For additional information on the accelerated B.A./M.P.A. program, interested students are encouraged to contact Dr. Russell Harrison, adviser, Department of Political Science, by phone at 856/225-6084, ext. 32, or by email at ruharris@crab.rutgers.edu.

Questions also may be directed to Dr. James Garnett, chair, Graduate Department, at 856/225-6353 or by email at garnett@crab.rutgers.edu. More detailed program information is available through the Rutgers–Camden web site, http://camden-www.rutgers.edu. At the site, click on "Schools and Colleges," then Political Science under "College of Arts and Sciences" or "M.P.A." under "Graduate School."

Internships

As in any professional degree program, practical experience is a key component of a B.A./M.P.A. student's education. A 3-credit internship is arranged in which each student assists an individual in a public management role. Internships are closely supervised to ensure that the student has a worthwhile experience. Paid internships are available for individuals who qualify for work-study funding.

Political Science Society

Of particular interest to students is the Political Science Society, a student organization that sponsors debates, appearances by prominent local and national politicians, educational trips, and social events. The society has provided many students with an opportunity to meet political leaders and acquire firsthand knowledge of government and politics.

Courses

50:790:101. Introduction to Politics (R) (3)
For students beginning a political science major and for students with other majors interested in a course in politics.
General introduction to major concepts, issues, and theoretical approaches to the study of politics.

50:790:103. Basic Urban Issues (3)
The identification of, study of, and governmental response to selected urban problems. Liberal, conservative, and radical views.

50:790:205. American State and Local Government (R) (3)
Examination of the crucial role of state governments and their subdivisions in the American federal system. Conditions for responsive, effective government.

50:790:210. Introduction to Comparative Politics (3)
Introduction to major types of political systems in today's world. Explores contemporary issues, such as political stability and responsiveness, democratization, political and economic development, minority rights, and transnational integration.

50:790:211. Introduction to International Politics (3)
Basic concepts underlying theories of international relations (such as national power, balance of power, deterrence, war and peace); forces shaping international relations (such as nationalism and ideology, including democratic and communist); national as well as international instruments or institutions through which international relations are conducted (such as foreign policy, international law, and international organization).

50:790:215. Introduction to American Politics (R) (3)
A comprehensive survey of American national government; its institutions, functions, and processes, including constitutionalism, federalism, elections, pressure politics, social and economic policies, and national security.

50:790:242. Urban Social Ecology (3)
Seeks new solutions to urban problems by redefining them in terms of local, regional, national, and global systems. Problems to be addressed may include exclusionary zoning, inner-city education, urban housing, urban economic development, and crime.

50:790:296. Practical Politics (3)
Prerequisite: 50:790:215.
Students expected to undertake an internship in a political office or organization or nonpartisan political organization.

50:790:304. Politics and Culture (3)
Examines the interrelation between politics and cultural change. Analyzes how the development of various modes of artistic expression, such as the novel, reflect and affect changing sociopolitical values.

50:790:305. Government and Politics of Western Europe (3)
Government and politics of Great Britain, France, Germany, Italy, and the Scandinavian democracies and the Benelux and European community structures. Contemporary tensions and changes within and among the major governments of continental Europe.

50:790:307. Public Policy Analysis (3)
Explores the perspectives utilized in the analysis and evaluation of public policy making and policy results. Topics include the public interest, cost-benefit analysis, normative constraints, policy evaluation methods, and the political implications of systematic policy analysis.

50:790:308. New Jersey Politics (3)
Structures and processes both of state and local governments, how they relate to each other and the federal system, and how citizens and public officials can ensure their proper operations. Educational reform, zoning and land-use disputes, the role of the courts as a key part of the New Jersey political system, the growth of professionalization in public administration, and the representation of interests in Trenton.

50:790:311. Government and Politics of Latin America (3)
Emphasis on how governmental practices and participation of political groups in various Latin American countries have been linked to their socioeconomic structures. The role of parties and special groups, such as the military, labor, the Catholic Church, and students. The particular problems of Latin American political development and government economic and social policy making in an era of modernization.

50:790:316. Government and Politics of the Far East (3)
Examines contemporary political and economic problems of China and Japan against background of their political history, political systems, and political cultures. Current controversies and policies analyzed in the light of historical, governmental, and cultural factors.

50:790:318. Comparative Public Policy (3)
Examines the content and consequences of public policy in modern industrial democracies, enabling students to analyze and evaluate the issues in contemporary American policy debates. Issues covered include administrative reform, inflation, unemployment, income distribution, health and welfare, energy, taxation, international trade, and transportation.

50:790:320. Problems in Contemporary American Foreign Policy (3)
Analyzes (1) patterns of post-World War II American foreign policy in terms of national interests, goals, and instruments, and (2) external and internal factors shaping these interests, goals, and instruments, including changes in international political and economic conditions (external factors) and national values, public opinion, governmental structures, roles, and processes, and leadership factors (internal factors). Seeks understanding of American responses to problems confronting U.S. foreign policy, such as ideological conflicts and conflicts over the distribution of such power and economic resources as in East-West and North-South conflicts.

50:790:322. Problems in Contemporary International Politics (3)
Study of the emerging post-Cold War order and analysis of current theoretical issues as well as international problems such as the environment, gender issues, and rise of national and ethnic tensions.

50:790:323. The Legislative Process (3)
Analysis of Congress, its internal organization and structure, and relation to other political institutions in the system, such as the president, political parties, courts, bureaucracy, and interest groups.

50:790:324. World Communism (3)
Analysis of Soviet foreign policy and international communism. Topics include the Cold War, the Sino-Soviet dispute, and the role of the world's communist parties today.

50:790:328. Comparative Politics of Developing Nations (3)
Comparative study of political, cultural, and socioeconomic forces in selected developing countries, including traditionalism, colonialism, nationalism, class formation, praetorianism, revolutionary movements, and imperialism.

50:790:330. Comparative Politics of Eastern Europe (3)
Analyzes political developments in the Czech Republic and Slovakia (formerly Czechoslovakia), Poland, and other major nations of Eastern Europe. Particular attention paid to the emergence of post-World War II political structures and the role of the former Soviet Union.

50:790:331. Urban Policy and Economic Development (3)
The analysis of the forms, functions, and problems of the municipality. The interrelations among economic development, business interests, and public policy in urban areas.

50:790:332. Urban Political Systems (3)
Modern urban government, social and political problems of the city, types of government organizations, and the relations of the city with other units of local government.

50:790:333. The CIA and American Intelligence (3)
Role of the Central Intelligence Agency in the formulation and implementation of American foreign policy and of the CIA's interaction with other intelligence agencies, the National Security Council, and Congress. Intelligence collection, intelligence analysis, counterintelligence, and covert action.

50:790:335. Government and Politics of Sub-Saharan Africa (3)
An inquiry into the political processes and governmental institutions of countries of sub-Saharan Africa, with special emphasis on the dynamics of political development and social and economic changes.

50:790:336. Government and Politics of the Middle East (3)
An introduction to the government and politics of Israel, the Arab countries, Turkey, Iran, and certain other marginal lands. Consideration of contemporary crises and tensions and the role of nationalism, world history, World War II, ideological competition, and power politics in the area.

50:790:337. Government and Politics of South and Southeast Asia (3)
A study of the political history, politics, government, and contemporary political and economic problems and policies of South and Southeast Asian political systems, with an emphasis on the Indian subcontinent in South Asia and Vietnam, Indonesia, the Philippines, and Malaysia in Southeast Asia.

50:790:338. Government and Business in the International System (3)
Examines the relationships between government and business in advanced industrial democracies and the extent to which public sector / private sector ratios promote or retard economic growth. Assesses the factors that promote close relationships between government and business in some countries, like Japan, and disorganized and chaotic relationships in others, like the United States.

50:790:340. Urban Planning (3)
Introduction to the urban planning process: problems, concepts, and tools of planning for and with urban residents; emphasizes the different roles and responsibilities of planners in influencing social and environmental change.

50:790:342. Principles of Public Administration (3)
The structure and organization of administrative machinery in the United States. The theory and politics of contemporary bureaucracy with emphasis on administrative forces, decision making, enforcement, administrative courts, responsiveness, and innovations.

50:790:343. Administrative Law and Public Policy (3)
An examination of the major concepts and techniques of administrative law—delegated legislation, adjudicatory procedures, judicial review—and an exploration of the application of these concepts and techniques to the process of formulating and evaluating public policy.

50:790:346. Urban Legal Problems (3)
Analyzes contemporary urban problems from a legal perspective, while recognizing that law is a product of political processes; explores legal problems including municipal powers, intergovernmental relations, zoning, urban renewal, legal aspects of tax reform, and law used as a vehicle of urban social change.

50:790:347. Current Readings in Political Science (3)
Open to anyone admitted to the honors program. In order to initiate this reading program, the student should approach the professor with whom he or she expects to work concerning a specific topic or area of inquiry.

50:790:350. Violence, Revolution, and Terrorism (3)
Examines leading social science theories of revolution and political violence. Focuses on revolutionary and counterrevolutionary movements in selected countries. Discusses policies and strategies for responding to terrorism.

50:790:351. Political Parties in the United States (3)
History, structure, and organization of major and minor parties. The functions of parties in modern society. Strengths and weaknesses of contemporary party alignments. The nature of the electoral process and the electorate.

50:790:352. Voting and Opinion (3)
Voting behavior, political attitudes, and opinions of electorates. Also focuses on the relationships between political attitudes and voting and between voting and public policies.

50:790:356. Women and Politics (3)
Examines the modern political history of the women's movement, particularly in the United States. Explores the political and ideological context of current issues and socioeconomic trends affecting women, and analyzes the sociopolitical status and problems of women primarily within the United States, with a secondary emphasis on women in socialist and third-world countries.

50:790:360. Urban Public Policy (3)
Approaches to the analysis of urban policy issues. Attention to such topics as poverty, unemployment, education, housing, health, crime, transportation, and environment. Emphasis on policy as an instrument for social change.

50:790:363. Politics of Intergovernmental Relations (3)
Constitutional, political, and institutional relationships among U.S. federal, state, and local governments, including grants-in-aid, revenue sharing, interstate compacts, and intergovernmentalcooperation.

50:790:364. Politics of Minority Groups (3)
An analysis of the tactics, goals, and impact of organized minorities in the American political arena; groups studied include women, blacks, Chicanos, various ethnic groups, and selected third-party movements.

50:790:371. Classical Political Theory (3)
The leading figures of Western political theory from Plato to Machiavelli.

50:790:372. Modern Political Theory (3)
The leading figures of Western political theory from Hobbes to the present.

50:790:375. American Political Thought (3)
The heritage of ordered liberty in America. Analysis of the writings of such major figures in American thought as Jefferson and Madison, as well as broad theories of the operation of American political institutions.

50:790:380. Government and Politics of the Former Soviet Union (3)
Governmental institutions, politics, and policies of the USSR. Emphasis on the nature of executive leadership, the operation of bureaucratic controls, the procedures and results of economic planning, strengths and weaknesses of the Soviet system, and the role of Marxist and Leninist ideology.

50:790:381. Judicial Process (3)
The functioning of federal and state courts in the American political system. Topics include plea bargaining, judicial decision making, and the role of courts in policy development.

50:790:387. International Law and Organization (3)
An examination of the principles, foundations, and institutions of international law regulating diplomatic, financial, commercial, maritime, and cultural transactions among nations, as well as restraints on the use of force in international relations. The primary focus is on international law; international organization is examined as one of the concepts and institutions that have evolved within the international legal system.

50:790:390. Empirical Political Theory (3)
Major empirical theories in political science, such as role theory, group theory, and public choice, including research methods. Studies the place of theory in political science research.

50:790:391. Quantitative Methods in Political Science (3)
Examination of the application of quantitative methods in the study of causal relations in political science.

50:790:394. Honors Research (3)
Required of all honors students to receive certificate.
Individual writing, research, and preparation of an original thesis paper or research portfolio.

50:790:395. Formulation of American Foreign Policy (3)
Examines the processes by which U.S. foreign policy is made. Analyzes the relative influence exercised on U.S. foreign policy by the executive and legislative branches of government, and the changing roles of the presidency, Departments of State and Defense (as well as other agencies of government, such as the Central Intelligence Agency), and Congress. Reference also made to the external constraints on the American foreign policy decision-making process.

50:790:397. Individual Internship in Political Science (BA 3-6)
Prerequisite: Junior status.
Students work in a political or governmental capacity and meet regularly for faculty consultation and exploration of experiences and conclusions.

50:790:401. American Constitutional Development (3)
Prerequisite: 50:790:215 or junior status.
Judicial review and constitutional interpretation. Focuses on the separation of powers, federal-state relations, and national powers relating to war, regulation of commerce, and civil rights.

50:790:407. The American Presidency (3)
The constitutional basis and development of the American presidency. The potentialities of presidential government, patterns of presidential politics, power, strengths, weaknesses, and limitations of presidential authority.

50:790:409. Law and American Civilization (3)
An introduction to the history and philosophy of law and American legal institutions.

50:790:413. Political Methodology (3)
Design and execution of research in politics, including the use of existing data and gathering data in the field. Introduces the student to the use of computers as they relate to the discipline of political science.

50:790:414. The Supreme Court as a Political Institution (3)
The place, role, and function of the Court in American politics. Examines the Court's role in the separation of powers, the extent to which the Court is a democratic institution, the character of the Justices' decision making, and the impact of Court decisions.

50:790:416. Seminar in Political Development (3)
Analysis of the forces of modernization and political development, with special attention to comparative study of political development.

50:790:420. Seminar on War and Peace (3)
War as an activity of men and nations. The theology, philosophy, politics, economics, and laws which are part of the emotion, rationale, and literature of war.

50:790:421. Theory and Practice of Marxism (3)
Analyzes how Marxist theory has evolved. Discusses the role of Marxism today.

50:790:422. Politics, Business, and American Capitalism (3)
Examines the philosophical, political, and economic bases of government-business relations in the United States. Surveys the evolution of macroeconomic policy as well as such contemporary issues as "stagflation," trade and industrial policy, and public ownership.

50:790:425. Modernization in the Third World (3)
Domestic and international factors bearing on the political-economic development of third-world nations.

50:790:434. Government, Business, and American Politics (3)
Examines the relationship between democracy and capitalism; contending views about capitalism's future in the United States; and current government-business relations, with particular emphasis on regulatory policy and politics.

50:790:442. Human Freedoms and the Constitution (3)
The Constitution and basic civil liberties issues. Analysis of Supreme Court decisions dealing with freedom of speech and press, rights of defendants, freedom of religion, discrimination and equality, and the right to privacy.

50:790:447. Critical Issues in American Government (3)
In-depth examination of the major problems confronting American society: race, poverty, housing, transportation, science policy, education, crime, taxation, and environmental policy. Focuses on the development and effectiveness of various policies in these areas.

50:790:456. Public Sector Personnel Policy (3)
Principles and techniques of government personnel systems; their organization and development; recruitment, selection, training, promotion, classification, and transfer policies; morale, employee relations; the impact of public personnel policies on agency services.

50:790:460,461. Topics in Political Science (BA 1-6,BA 1-6)
Opportunity to work closely with an individual instructor to explore an issue or subject of common interest.

50:790:469. Rich Nations/Poor Nations (3)
Comparative analysis of the foreign policies of developing areas dealing largely with economic, political, and historical determinants of foreign policy objectives within the context of domestic and world affairs. Emphasis on Asia, Saharan Africa, and / or Latin America.

50:790:480. Radical Politics (3)
Political protest movements and the methods of radical political change.

50:790:489,490. Studies in Political Science (3,3)
Studies in special topics intended to involve students in advanced study and research. Subjects usually change from year to year.

50:790:492. READINGS IN POLITICAL SCIENCE (BA 1-4)

Prerequisite: Permission of instructor. Credits determined according to the outline of work adopted by students and instructor. Designed for students who are not participating in the departmental honors program.

Closely supervised exploration of political subjects through the outstanding readings in the field. A tutorial relationship with the instructor.

50:790:495,496. SEMINAR PROGRAM

Prerequisite: Admission to the honors program or special invitation. Students registered in the honors program are expected to complete at least two seminar courses and a thesis in Honors Research (50:790:394).

Honors Seminar in American Government and Public Policy (3)
Honors Seminar in International Politics (3)
Honors Seminar in Political Theory and Methodology (3)

50:790:499. INDEPENDENT STUDY AND RESEARCH (BA 1-6)

Credits determined according to the level of work agreed upon by student and instructor.

PSYCHOLOGY 830

Web Site: http://camden-nt1.rutgers.edu/psychology/

Major requirements in psychology can be completed through either daytime or evening attendance.

Department of Psychology

Chairperson: William H. Tucker

Professors:

Luis T. Garcia, B.A., Wichita State; M.S., Ph.D., Kansas State
Daniel A. Hart, B.A., Bates College; Ed.D., Harvard
William H. Tucker, B.A., Bates College; M.A., Ph.D., Princeton
J.W. Whitlow, Jr., B.A., Macalester College; Ph.D., Yale

Associate Professors:

Beth Adelson, B.S., Goddard; M.A., Ph.D., Harvard
Harvey M. Lesser, B.S., CUNY (Queens); M.A., Ph.D., New School for Social Research
Dorothy R. Mandelbaum, A.B., CUNY (Hunter College); Ph.D., Bryn Mawr College
Ira Roseman, B.S., Columbia; Ph.D., Yale
Michael Wogan, B.A., American; M.A., Florida; Ph.D., North Carolina (Chapel Hill)

Assistant Professor:

Mary Bravo, B.S., Case Institute of Technology; Ph.D., Northwestern

Psychological inquiry lies at the heart of the social sciences. It is concerned with understanding how the behavior of the individual depends on biological, developmental, cognitive, and social processes. Courses offered by the psychology department are designed to give students a thorough grounding in modern research and theory about psychological processes at many different levels.

Major Requirements

The major in psychology requires a minimum of 40 credits, representing 13 credits in required courses and 27 credits in psychology electives. The following four courses of study are required: 50:830:101 Introduction to Psychology; 50:830:215 Statistics for Social Science; 50:830:225 Method and Theory in Psychology; and either 50:830:381 and 380 Experimental Psychology with laboratory or any other course that has an associated laboratory component (see "Preparation for Graduate Study" below).

Graduating with a major in psychology requires at least a 2.5 grade-point average in the major and no more than two grades lower than a C in all psychology courses taken at Rutgers and presented to satisfy the major. Students may petition the department to request an exception to these requirements if they feel it is warranted.

During the third and fourth years, students may take 50:830:495 Research in Psychology or 50:830:493 Individual Supervision of Fieldwork in Psychology. For these courses, students may earn from 1 to 3 credits, depending upon the arrangement with the supervising faculty member. No more than 9 credits from either or both of these courses may be used for psychology electives. Students with more than 9 credits in the two courses may use the balance for general electives.

Minor Requirements

Students who wish to minor in psychology must fulfill the following general requirements: at least 18 credits in psychology courses with 6 credits or more at or above the 300 level. Students must have at least a C (2.5) grade-point average for courses applied to the psychology minor; no more than one grade may be lower than a C.

Minor for Management and Accounting Majors

The psychology department offers a special minor for management and accounting majors. Course 50:830:101 Introduction to Psychology or 50:830:235 Introductory Social Psychology is a prerequisite for all other courses in the minor. The student must fulfill the general requirements for minors and select additional psychology courses from among the following: 50:830:325, 341, 363, 371, 385, and 393. A student may petition the department to have other courses added to this list. Students completing this minor must have at least a C (2.5) grade-point average in all courses applied toward the minor; no more than one grade may be lower than a C.

Departmental Honors Program

Students interested in the departmental honors program should consult with their adviser before beginning the first term of the senior year. To receive honors in psychology, the student must complete two terms of the departmental honors seminar, 50:830:496 and 497. The honors project must be sponsored by one or more faculty advisers, and the honors proposal must be approved by the department. During the second term of the program, a formal presentation of the outcome of the project must be made to the department. Students may not register for the honors program in psychology without receiving prior permission.

Teacher Certification in Social Studies

Students seeking teacher certification in social studies must complete the requirements for the major in the psychology department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult both their department adviser and the chairperson of the education department.

Preparation for Graduate Study

Students interested in pursuing graduate study in psychology should meet with a faculty member early to plan their course of study. Those who wish to specialize in particular areas of study should discuss their plans with faculty members whose expertise is most appropriate for those areas.

Although a number of courses may satisfy the major's laboratory requirement, students planning to pursue graduate work in psychology are strongly advised to take

50:830:381 Experimental Psychology. Such students also should include courses that provide training in research and / or theory, particularly in their tentative areas of specialization. In addition, they should include research activity in their programs of study by enrolling in 50:830:495 Research in Psychology and by taking other courses that include research projects. Students who wish to pursue clinical work also should enroll in 50:830:493 Individual Supervision of Fieldwork in Psychology.

Courses

50:830:100. Introductory Topics in Psychology (3)
Mainly for those taking courses in the Division of Continuing Education. Students may take this course for departmental credit a maximum of two times, provided that the department agrees in advance that the second topic is different from the first.
Examination of basic areas in psychology (e.g., adjustment, development, and motivation) at an introductory level.

50:830:101. Introduction to Psychology (R) (3)
May not be taken by students who have completed any other introductory psychology course.
Introduction to problems, methods, and principles of psychology. Topics include historical perspective and methodology, psychological development, learning, personality, social psychology, sensation and perception, and biological bases of behavior. Participation in experimental research or completion of an essay required.

50:830:203. The Psychology of Minority Groups (3)
Prerequisite: 50:830:101 or 235.
An examination of the personality patterns, psychological dynamics, and social-cultural styles that emerge from the encounter of minority groups with American culture. Attempts made to define the major psychological events within minority groups as they relate to developmental processes, attitudes, perceptions, and identity patterns.

50:830:206. Psychology of Marriage and the Family (3)
Prerequisite: 50:830:101 or 235.
The psychological study of interpersonal behavior within family units, both nuclear and extended; addresses conjoint personal development, communication networks, and intrafamily conflict.

50:830:215. Statistics for Social Science (3)
Prerequisite: 50:830:101 or 235. Recommended: 50:730:201 or equivalent. Credit not given for this course and 50:960:183 or equivalent.
Provides an introduction to the basic concepts of psychological statistics, both descriptive (organization and presentation of data) and inferential (drawing conclusions from data); major emphasis on practical applications in psychological research.

50:830:225. Method and Theory in Psychology (3)
Prerequisite: 50:830:101.
A survey of research methods in psychology, emphasizing the guiding role of theory in scientific research. Consideration of the nature and history of scientific theories in psychology, hypothesis generation, review of extant literature, measurement, experimental design, control of extraneous variables, analysis, interpretation, replication, and testing the ecological validity of results. Emphasis on the self-correcting nature of the research process through replication and extension, peer review, increased methodological sophistication, and quantitative analysis

50:830:235. Introductory Social Psychology (R) (3)
Credit not given for both this course and 50:830:335. Not recommended for psychology majors.
A survey of research and theory concerning humans as they influence and are influenced by their social environment; includes small group studies, social influences in communication, attitude formation and change, and social perception, as well as aspects of larger interpersonal settings, such as the family and the organization.

50:830:312. Psychology of Consciousness (3)
Prerequisite: 50:830:101 or 235.
An examination of theories of consciousness deriving from both Western and Eastern traditions. Consideration given to the implications for theories of consciousness of the phenomena of altered states of consciousness, and meditative and mystical states.

50:830:315. Computer Applications in Psychology (3)
Prerequisites: 50:830:215 and 50:198:110 or equivalent.
Introduces students to the use of computers in collecting data and controlling experiments in a laboratory environment, data reduction and analysis, graphics for psychological research, and theory construction. Students complete research projects requiring computer-related skills.

50:830:325. Psychology of Childhood (3)
Prerequisite: 50:830:101 or 235.
The study of child behavior and development up to and including late childhood. Development of motor abilities, language, intelligence, social and emotional behavior and attitudes, with emphasis on the prevention of maladjustment.

50:830:326. Psychology of Adolescence (3)
Prerequisite: 50:830:101 or 235.
The study of adolescence. Each stage treated with reference to the particular problems and deviations characteristic of it. Emphasis on continuity between the stages of adolescence.

50:830:330. Psychology of Learning (3)
Prerequisite: 50:830:101 or 235.
A survey of the major historical theories of learning with special emphasis on critical comparison of special issues and problems. Comparison of the major theoretical positions in terms of the ways in which each of them approaches special problems in learning.

50:830:335. Social Psychology (3)
Prerequisite: 50:830:101. Credit not given for both this course and 50:830:235.
Psychological study of the individual interacting with others. Specific topics include attribution theory, attraction, attitudes, aggression, altruism, and group decision making.

50:830:341. Psychology and the Law (3)
Prerequisite: 50:830:101 or 235.
Explores the relation between the field of psychology and the legal system, the decision-making process of judges and juries, eyewitness reliability, criminal insanity, the use of psychological knowledge to raise legal issues, and assumptions that the legal system makes about human nature.

50:830:347. Psychology of Human Sexuality (3)
Prerequisite: 50:830:101 or 235.
Covers the major methodological and theoretical approaches to the psychological study of human sexuality. Topics include sexual arousal, the psychological effects of exposure to pornography, and sexual variations and dysfunctions.

50:830:350. Industrial Psychology (3)
Prerequisite: 50:830:101 or 235.
Personnel selection and placement; psychology of industrial and human relations; worker morale, motivation, and efficiency; human factors in equipment design, marketing, and advertising research.

50:830:352. Legal and Social Aspects of Mental Health (3)
Prerequisite: 50:830:101 or 235.
A critical discussion of the mental health system and the assumptions on which it is based. Special attention paid to related social and political issues, such as involuntary commitment and imposed treatment.

50:830:353. Intelligence (3)
Prerequisite: 50:830:101 or 235.
An examination of the historical origins of the concept and measurement of intelligence, together with a consideration of the research on heritability and group differences. Social as well as scientific implications of the research discussed.

50:830:354. Psychology of Aging (3)
Prerequisite: 50:830:101 or 235.
Offers an overview of the psychology of aged people in our society. The effects of physical change, social habitat, and impending death upon the personality and behavior of the aged person examined.

50:830:358. Introduction to Clinical Psychology (3)
Prerequisites: 50:830:363 and junior or senior status.
A survey of activities and practices of contemporary clinical psychology. Three broad areas of practice–tertiary, secondary, and primary prevention–and the activities specific to these practices covered. The interdependence of clinical and other areas of psychology, as well as research procedures and contributions.

50:830:360. Hypnosis (3)
Prerequisite: 50:830:101 or 235.
An examination of phenomena of hypnosis from both experimental and clinical perspectives, including measurement, personality characteristics of the suggestible person, applied work such as pain control, and selected research issues.

50:830:361. Group Dynamics (3)
Prerequisite: 50:830:101 or 235.
Examines basic aspects of group interaction, including experiential exercises. Lectures and readings focus on a variety of theories relevant to the analysis of group processes.

50:830:363. Abnormal Psychology (3)
Prerequisite: 50:830:101 or 235.
A survey of the field of mental disorder and abnormal behavior and consideration of diagnostic systems. Constitutional, psychodynamic, and environmental factors conditioning abnormal behavior.

50:830:371. Psychology of Personality (3)
Prerequisite: 50:830:101 or 235.
Examination of theoretical and research approaches to the understanding of individual behavior, considering both individual traits and situational sources of influence.

50:830:373. Psychology of Women (3)
Prerequisite: 50:830:101 or 235.
The psychological impact of being female; a review of research and theory on the development of sex differences in identity and other aspects of personality.

50:830:380. Laboratory in Experimental Psychology (1)
Prerequisites: 50:830:101 or 235, 215, and 225. Corequisite: 50:830:381 or other lecture course offering a laboratory.
Examines scientific methods of approaching the study of behavior. Students gain practical experience in research techniques used in selected areas of psychology.

50:830:381. Experimental Psychology (3)
Prerequisites: 50:830:101 or 235, 215, and 225. Corequisite: 50:830:380.
Designed to introduce the student to experimental techniques and methodological problems involved in the investigation of psychological phenomena. Prepares the student to conduct research, analyze data, and interpret and report results of experiments.

50:830:382. Experimental Psychology Laboratory II (1)
Prerequisites: 50:830:380,381 and permission of instructor. Corequisite: Lecture course designated by department (changes each term).
An advanced laboratory in psychology.

50:830:385. Psychological Tests and Measurements (3)
Prerequisites: 50:830:101 or 235, and 215.
Introduction to the history, development, and principles of psychological testing, including techniques of administration, scoring, and interpretation. Intelligence, aptitude, achievement, interest, and personality tests studied theoretically and empirically. The impact of testing on the individual and on society.

50:830:393. Human Emotions (3)
Prerequisite: 50:830:101 or 235.
Inquiry into the nature of human emotions, their causes and functions. Topics discussed include: physiological, behavioral, and cognitive approaches to emotions; expressive aspects; motivational aspects; emotional development; individual, gender, and cultural differences; emotional pathology; emotional self-regulation and control.

50:830:404. Cognitive Processes (3)
Prerequisite: 50:830:101 or 235.
Examines research on human information processing, including attention, pattern recognition, memory, thought, and problem solving. Discusses laboratory techniques, theoretical models, and research applications to practical concerns, such as reading, training strategies, and human engineering.

50:830:406. The Psychology of Human Judgment (3)
Prerequisite: 50:830:101 or 235.
Issues in behavior decision theory, such as the nature of human inference, rational and irrational choice, and the processes of decision making. Discusses development and psychobiological aspects of judgment and choice. Emphasizes psychological theories of judgment and choice that can be tested empirically.

50:830:408. Psychology of Adjustment (3)
Prerequisite: 50:830:101 or 235.
The interaction of psychological and environmental factors determining the mental well-being of the individual, with special emphasis on individual problems of personality development and adjustment.

50:830:415. Theory and Practice of Negotiation (3)
Prerequisite: 50:830:101 or 235.
Involves both study of theory and extensive practice of evolving techniques in negotiation. Students gain insight into and skills in conflict resolution. The study of conflict reveals central psychological phenomena of theoretical interest, and the resolution of conflict is becoming a standard topic of study in today's universities.

50:830:423. History and Theory in Psychology (4)
Prerequisites: 50:830:215 and 12 additional credits in psychology.
Examination of the prominent systematic views and problems in psychology in terms of their historical antecedents and current impact.

50:830:429. Research Methods of Social Psychology (3)
Prerequisites: 50:830:335 and permission of instructor.
Students engage in research projects in the laboratory, naturalistic field study settings, and / or organizational contexts conducted under the supervision of the instructor; in-depth studies of basic social psychological processes, such as group dynamics, leadership, attitude change, crowding, and conflict resolution.

50:830:436. Behavior Modification (3)
Prerequisite: 50:830:101 or 235.
Philosophical, theoretical, and experimental background of behavior modification together with clinical applications. Specific topics include principles of operant conditioning, misconceptions of behavior modification, reinforcement systems, aversive approaches, cognitive behavior therapy, and ethical and legal issues.

50:830:437. Behavioral Pharmacology (3)
Prerequisites: 50:830:101 or 235 and junior or senior status or permission of instructor.
The action of drugs on the nervous system and behavior. Topics include principles of drug action, drug-environment interactions, drug abuse, drugs and therapeutic agents, and drugs as tools in psychological research.

50:830:440. Interviewing Techniques (R) (3)
Development of interviewing / counseling skills through readings, in-class role plays, videotaping, and a required thirty-hour human services / resources field placement. Basic communication skills introduced using the microskills approach.

50:830:443. THE PSYCHOLOGY OF STRONGLY HELD BELIEFS (3)
Prerequisite: 50:830:335.
Inquiry into the origins, structure, and psychological functions of strongly held systems of belief, such as political liberalism and conservatism, attitudes toward war and peace, and attitudes toward social issues (e.g., abortion, racial attitudes, etc.). Topics include relationships of personality, personal experiences, and socialization to political beliefs.

50:830:458,459, 463,464. SPECIAL TOPICS IN PSYCHOLOGY (2-3,2-3,2-3,2-3)
Prerequisites: 50:830:101 or 235 and junior or senior status or permission of instructor.
Selected theoretical, experimental, and applied problems in psychology. Specific topics covered rotated from term to term depending on the interests of participating faculty and students.

50:830:465. LEARNING AND MEMORY (3)
Prerequisite: 50:830:101 or 235.
A critical survey of the outstanding attempts to understand the nature of learning and memory. Emphasis on classical and current theories and their implications. Demonstrates a range of phenomena from simple conditioning to complex verbal learning.

50:830:467. PERCEPTION (3)
Prerequisite: 50:830:101 or 235.
Examines what we need to know about the objects and events that surround us, how our eyes and ears sense this information, how the patterns of neural activity in our brain represent this information, and finally, what scientists know about our visual and auditory experiences.

50:830:484. PHYSIOLOGICAL PSYCHOLOGY (3)
Prerequisite: 50:830:101 or 235.
Examines the relationship between biology and behavior. By studying the workings of animal brains, the functional deficits of brain-damaged humans, and the genetics of behavior, scientists have identified some of the underlying biological mechanisms of language, addiction, anxiety, depression, learning, aggression, and other aspects of human psychology.

50:830:486. PSYCHOLOGICAL ANALYSIS OF ANIMAL BEHAVIOR (3)
Prerequisite: 50:830:101 or 235.
Review of the behavior patterns of lower animals with emphasis on the evolution of instinctual and experiential determiners of these patterns. Topics include communication, behavior-structure relationships, adaptive ability versus specialization, and the evolution of intelligence.

50:830:488. ADVANCED SEMINAR IN PSYCHOLOGY (R) (3)
Prerequisites: 50:830:101 or 235 and at least three other courses in psychology, plus written permission of instructor.
Faculty members and distinguished visiting lecturers lead seminars in their fields of specialization; students prepare and present papers on assigned topics that change from year to year.

50:830:493. INDIVIDUAL SUPERVISION OF FIELDWORK IN PSYCHOLOGY (R) (1-3)
This course may be repeated for credit, but only 9 credits can be applied toward the requirements for the major.
Provides advanced psychology majors with an opportunity to integrate and expand their knowledge of psychology through applied experiences in the community. Students are encouraged to develop their own placements, but prearranged placements also are available. Individual supervision in the conceptualization and carrying out of projects provided.

50:830:495. ADVANCED INDEPENDENT STUDY IN PSYCHOLOGY (R) (1-3)
(Formerly 50:830:492)
This course may be repeated for credit, but only 9 credits can be applied toward the requirements for the major.
Student required to undertake a term-long or yearlong laboratory or library project under the supervision of a member of the department. Strongly recommended for students planning to attend graduate school.

50:830:496,497. HONORS PROGRAM IN PSYCHOLOGY (3,3)

RELIGION 840

See Philosophy and Religion.

RESERVE OFFICER TRAINING PROGRAMS

Web Site: http://www.camden.rutgers.edu/dept-pages/rotc/rotc.html

Rutgers students have the opportunity to participate in cross-enrollment programs with Drexel University and with St. Joseph's University for officer training.

Army ROTC

The Army Officer Education Program offers students an opportunity to receive officer training while earning their undergraduate degrees. Upon successful completion of that program and graduation, students are offered commissions in the U.S. Army. Scholarship students in this program receive full tuition and fees, books, and a monthly subsistence allowance of $200. (Check current guidelines for confirmation of tuition cost.)

Students participating in the Army Officer Education Program may compete for two-year or three-year on-campus ROTC scholarships. Although students are advised to enroll in the program as first-year students, enrollment is possible throughout the first and sophomore years. Training includes instruction in leadership and management, with opportunities for supervised experience, including paid participation in training camp, normally during the summer after the junior year.

Specific information regarding physical and other qualifications for admission and other matters pertaining to participation in the Army Officer Education Program may be obtained by writing or calling: Drexel University, ROTC Department, 33rd and Market Streets, Philadelphia, PA 19104; telephone: 215/590-8808 or 8809, or visit our web site at http://www.drexel.edu/rotc.

Air Force ROTC

Rutgers University students are eligible to participate in the Air Force Reserve Officer Training Corps (AFROTC) through a cross-enrollment agreement with St. Joseph's University. All aerospace studies courses will be held on the St. Joseph's campus, City Line Avenue, Philadelphia, PA. The AFROTC program enables a college student to earn a commission as an Air Force officer while concurrently completing the requirements for the baccalaureate degree.

Air Force ROTC offers two-, three-, and four-year scholarships on a competitive basis to qualified applicants. All scholarships cover tuition, fees, a flat-rate book allowance, plus a $100 tax-free monthly stipend. All members of the Professional Officer Course (POC), regardless of scholarship status, receive the $100 tax-free monthly stipend.

For further information on the cross-enrollment program, scholarships, and career opportunities, contact: AFROTC admissions officer, AFROTC Det 750, St. Joseph's University, Philadelphia, PA 19131; telephone: 215/871-8351.

Discrimination Based on Sexual Orientation

Rutgers, The State University of New Jersey, has a clear policy that seeks to guarantee that the services and benefits offered to its students are available equally to all. This includes equality regardless of sexual orientation. However, ROTC programs are governed by the United States Department of Defense, which maintains a policy of discrimination against gays, lesbians, and bisexuals. Hence, equal opportunities are not guaranteed to all who may wish to fully participate in ROTC programs.

The university's opposition to the Department of Defense policy of discrimination will be actively maintained until full equality of access and benefits is available to all, regardless of sexual orientation. In the meantime, the university has secured the rights of all students to enroll in and receive academic credit for ROTC courses. Students who believe that they have been subjected to discrimination by ROTC, or by any other division of the university, should contact Dr. Emmet A. Dennis, Vice President for Student Affairs (732/932-8576).

RUSSIAN 860

See German and Russian.

GENERAL SCIENCE 890

Web Site: http://www.camden.rutgers.edu/dept-pages/gen_sci/gen_sci.html

Program Adviser: R.C. Evans

The general science program is intended for students desiring a broad knowledge of the biological, physical, and mathematical sciences. The program allows a student to pursue specific interests after having completed a required core of basic courses. Thus, the program accommodates the student whose interest is purely scientific as well as students interested in the relationship of science to other fields. This program can be completed only through daytime attendance.

Major Requirements

The program requires the following courses:

50:120:101,102 General Biology (4,4) or 50:120:127,128, 129,130 Principles of Biology and Laboratory (3,3,1,1)
50:160:115-116 Chemical Principles (3,3)
50:160:125-126 Chemical Principles Laboratory (1,1)
50:198:151 Introduction to Programming Methods Using FORTRAN (3)
50:460:101 Introduction to the Earth (3)
50:640:130 Calculus for Business, Economics, and Life Sciences (3) or 50:640:121 Unified Calculus (4)*
50:750:203-204 General Physics (3,3)
50:750:205-206 General Physics Laboratory (1,1)
50:960:183 Elementary Applied Statistics (3) or 50:960:283 Introduction to Statistics (3)

The student must elect one of the following choices:

1. three courses in biological sciences at the 200 level or above
2. three courses in chemistry at the 200 level or above
3. three courses in physics at the 200 level or above
4. mathematics: 50:640:122 and two other mathematics courses at the 200 level or above

The choice selected shall represent the major department for purposes of satisfying category eight of the general curricular requirements.

Finally, the student must complete four additional courses at the 200 level or above outside the selected area (1-4) chosen from among the natural sciences, mathematics (including 50:640:122), computer science (including 50:198:111), and statistics.

The student must earn a grade of C or better in each course presented for the major.

It is strongly recommended that a student make early plans with the program adviser to satisfy prerequisites for any desired course beyond the first in a field. Before the end of the second year, the student is expected to submit for the adviser's approval their third- and fourth-year list of science courses.

* Students planning more than one term of mathematics should take 50:640:121 instead of 50:640:130.

Courses

50:890:101-102. PRINCIPLES OF THE PHYSICAL SCIENCES (3,3)
Prerequisites: 50:640:041-042 or equivalent.
A critical study of selected basic principles of astronomy, physics, and chemistry. The approach is quantitative and the solution of numerical problems is an essential part of the course. Stresses understanding as opposed to mere memorization.

SOCIAL WORK 910

Major requirements in social work can be completed only through daytime attendance.

Baccalaureate Social Work Program, School of Social Work

Dean: Mary Edna Davidson, B.A., San Francisco; M.S.W., California (Berkeley); Ph.D., Brandeis

Associate Dean and Director of B.A. Social Work Program: Ann A. Abbott

Associate Professors:

Ann A. Abbott, B.S., St. Norbert College; M.S.S., Ph.D., Bryn Mawr College
Raymond Sanchez Mayers, B.A., CUNY (Baruch College); M.S.W., Barry; Ph.D., Brandeis
Deborah Shapiro (emerita), A.B., Wayne; M.A., Chicago; D.S.W., Columbia

Assistant Professor:

Sharon Hines Smith, B.A., Douglass; M.S.W., Chicago; Ph.D., Pennsylvania

Director of Placement Services–Southern Region

Sharon C. Lyter, B.A., East Stroudsburg State College; M.S.W., Temple; Ph.D., Rutgers

The B.A. in social work, accredited by the Council on Social Work Education, is a professional degree program preparing students for beginning-level generalist social work practice. The focus for practice addresses work with special populations, including the poor, the oppressed, and other at-risk groups. Participants are expected to acquire the knowledge base, professional ethics, values, and skills to work effectively within individual, family, group, organizational, and community levels of practice. The program also prepares students for graduate study in social work and related fields.

Students are admitted to the major at the beginning of their junior year, after having completed approximately 60 credits of course work. Students should plan to apply to the major during the spring term of their sophomore year. Social work application forms may be requested from the social work program, School of Social Work; 856/225-6346.

A cumulative grade-point average of 3.0 is required for acceptance into the program. Completed applications should be returned to the director of the social work program by March 1.

Following acceptance into the program, all social work majors are assigned a faculty adviser within the School of Social Work. To continue in the major, students must maintain a 3.0 grade-point average in social work courses.

Prerequisites

50:120:105 The Facts of Life (3)
50:830:101 Introduction to Psychology (3)
50:830:215 Statistics for Social Science (3) or 50:960:183 Elementary Applied Statistics (3)
50:920:207 Introduction to Sociology (3)
One course from three of the following areas: African-American studies, anthropology, criminal justice, economics, political science, urban studies, women's studies.

Major Requirements

Following is the recommended course sequence:

Junior Year

First Term

50:910:220 Introduction to Social Work and Social Services (3)
50:910:311 Social Welfare Policy and Services I (3)
50:910:402 Human Behavior in the Social Environment I (3)

Second Term

50:910:312 Social Welfare Policy and Services II (3)
50:910:332 Professional Development Seminar (3)
50:910:403 Human Behavior in the Social Environment II (3)
50:910:405 Methods of Social Work Research I (3)

Senior Year

First Term

50:910:352 Groups at Risk in Contemporary Society (3)
50:910:471 Field Practicum I (6)
50:910:472 Generalist Practice I (3)

Second Term

50:910:473 Field Practicum II (6)
50:910:474 Generalist Practice II (3)
50:910:475 Integration Seminar (3)

Courses

50:910:220. Introduction to Social Work and Social Services (3)
Recommended for sophomores who plan to apply to the social work major.
Overview of social work values, ethics, arenas of practice, and problem areas. Includes forty-hour volunteer experience within a social service agency.

50:910:311. Social Welfare Policy and Services I (3)
Restricted to social work majors.
In historical perspective, exploration of social welfare, social policy, and the emergence of the social work profession. Philosophical, political, and practical bases of social policies and programs.

50:910:312. Social Welfare Policy and Services II (3)
Prerequisite: 50:910:311.
Process of social policy development and theoretic frameworks for the analysis of social policy. Emphasis on policies addressing problems of poverty, mental health, child welfare, and vulnerable groups, such as the elderly, gays / lesbians, women, and persons of color.

50:910:332. Professional Development Seminar (3)
Prerequisite: 50:910:220. Open only to social work majors in their junior year.
Professional skills necessary for baccalaureate-level generalist practitioners. Emphasizes development of a professional social work identity and skills needed to work within an organizational context.

50:910:352. Groups at Risk in Contemporary Society (3)
Analysis of the relationship between institutionalized practices and the functioning level of key high-risk groups within our society: aged, veterans, handicapped, refugees, women, ethnic and racial minorities, participants in alternative life-styles. Obstacles impeding the functioning of these groups explored.

50:910:402. Human Behavior in the Social Environment I (3)
Restricted to social work majors.
Theories, themes, and issues concerning the ongoing interaction between people as they grow, change, and develop over the life course, and the social context in which this occurs. Particular attention to assumptions about human behavior that may interfere with recognition of diversity in the ongoing interaction between individual, family, and group identity; social context and social life. Content about values and ethical issues related to bio-psycho-social development.

50:910:403. Human Behavior in the Social Environment II (3)
Prerequisite: 50:910:402.
Provides content about theories and knowledge of action groups, organizations, and communities as the context for micro- and macro-social practice. Content provided about the ways in which systems promote or deter people in the maintenance or attainment of optimal health and well-being. Evaluation and application of theory to client situations to understand how macro systems affect client benefit.

50:910:405. Methods of Social Work Research I (3)
Restricted to social work majors.
Introduction to scientific, analytic approach to building knowledge and skills including: role of concepts and theory, hypothesis formulation, operationalization, research design, data collection, data processing, statistical analysis, introductory computer skills, and report writing.

50:910:467,468. Individual Studies in Social Work (2,3)
Restricted to social work majors.
Admission requires a written study proposal, agreement by a faculty member in the social work department to supervise the work, and approval of the director.

50:910:471. Field Practicum I (6)
Prerequisites: Social work major, senior status. Corequisite: 50:910:472. Requires two days per week of supervised field instruction in a social service agency.
Participation in a supervised practicum applying the tenets of generalist practice. Gain greater understanding of the goals, organization, and delivery system of the field setting and the application of social work methods, values, ethics, and skills.

50:910:472. Generalist Practice I (3)
Prerequisites: Social work major, senior status. Corequisite: 50:910:471.
Preparation for students to apply a generalist practice perspective to systems of all sizes and levels. Essential skills, values, concepts, and ethical considerations as they pertain to generalist practice.

50:910:473. Field Practicum II (6)
Prerequisites: 50:910:471,472. Corequisites: 50:910:474,475. Requires two days per week of supervised field instruction in a social service agency.
Development and enhancement of essential values, skills, use of self, and use of supervision in interventive work with individuals, groups, organizations, and communities.

50:910:474. Generalist Practice II (3)
Prerequisites: 50:910:471,472. Corequisites: 50:910:473,475.
Basic skills including ethnic, racial, and gender-sensitive practice, and the formation of a collaborative working partnership.

50:910:475. INTEGRATION SEMINAR (3)

Prerequisites: 50:910:471,472. Corequisites: 50:910:473,474.

Consolidate and strengthen mastery of major components of generalist social work practice. Concentrate on the integration of the comprehensive skills required for successful social work practice with diverse and vulnerable populations within a wide variety of settings.

SOCIOLOGY (Anthropology 070, Criminal Justice 202, Sociology 920)

Web Site: http://sociology.camden.rutgers.edu/

Major requirements in sociology and criminal justice can be completed only through daytime attendance.

Department of Sociology, Anthropology, and Criminal Justice

Chairperson: Robert E. Wood

Professors:

Myra Bluebond-Langner, B.A., Temple; M.A., Ph.D., Illinois
Ted George Goertzel, B.A., Antioch; M.A., Ph.D., Washington
Drew Humphries, B.A., M.Criminology, D.Criminology, California (Berkeley)
Robert E. Wood, B.A., Harvard; M.A., Ph.D., California (Berkeley)

Associate Professors:

Sheila Cosminsky, B.A., CUNY (Brooklyn College); M.A., Washington State; Ph.D., Brandeis
Katrina Hazzard-Donald, A.B., Wilberforce; M.A., Ph.D., Cornell

Assistant Professors:

Jon'a F. Meyer, B.A., B.S., California State (Dominguez Hills); M.A., Ph.D., California (Irvine)
Jane A. Siegel, B.A., Drew; M.S., Ph.D., Pennsylvania

The Department of Sociology, Anthropology, and Criminal Justice offers two majors, one in sociology and one in criminal justice. The department also offers minors in all three subjects. Each of these programs is designed to draw on the combined strengths of sociology, anthropology, and criminology in fostering a broad awareness of the nature and functioning of human societies and of the ways in which such knowledge can be put to use. The sociology major is the broader of the two available majors, allowing students substantial latitude in putting together a program of courses from all three fields. Sociology graduates typically go on to a wide range of careers in social services, education, and business, as well as to graduate study in sociology and related fields. The criminal justice program prepares students for careers in a broad array of justice-related settings, and complements its specifically criminal justice courses with relevant sociological and anthropological course offerings as well.

In response to the challenges of a changing labor market, the department has committed itself to a skill-based curriculum designed to foster mastery of both quantitative and qualitative skills that can be applied in a wide range of job settings. All majors are expected to graduate with a solid range of computer competencies.

50:920:301 Methods and Techniques of Social Research should be taken shortly after the introductory courses and preferably before the junior year. All transfer students should take this course in their first term at Rutgers–Camden.

Students wishing to major in either sociology or criminal justice must declare a major in the registrar's office and then request an adviser in the Office for Student Life. Students wishing to major in both sociology and criminal justice also must meet with the Director of Criminal Justice for advising. Subsequently, students will be notified of the name of their faculty adviser; students should consult with their faculty adviser regularly each term.

Major Requirements

Sociology Major

Students majoring in sociology must complete 36 credits of sociology, anthropology, and criminal justice with at least a 2.0 grade-point average in these courses combined.

Students must complete 18 credits of the 36 required for the major as follows.

50:070:213 Introduction to Cultural Anthropology (3)
50:070:307 Psychological Anthropology (3) or 50:920:357 Individual and Society (3)
50:920:207 Introduction to Sociology (3)
50:920:301 Methods and Techniques of Social Research (3)
50:920:325 Sociological Theory (3)
50:920:332 Social Stratification (3) or 50:920:316 Race and Ethnicity (3)

Students also must complete 18 credits of the 36 required for the major in departmental electives. Departmental electives include courses in sociology, anthropology, and criminal justice, but note that at least one of the departmental electives must be in anthropology. Neither 50:070:213 Introduction to Cultural Anthropology nor 50:070:307 Psychological Anthropology can be used to fulfill the elective requirement in anthropology. At least half of the credits for the major must be taken at Rutgers.

It is strongly recommended that students considering graduate study in anthropology, criminal justice, or sociology have a reading knowledge of a foreign language and an understanding of statistics.

Criminal Justice Major

Students majoring in criminal justice must complete 42 credits of criminal justice, sociology, anthropology, and related courses with at least a 2.0 grade-point average in the combined courses. At least half of the credits for the major must be taken at Rutgers.

Students must complete 24 of the 42 credits required for the major as follows:

50:202:201 Criminal Justice in American Society (3)
and
Two of the following:
  50:202:202 Police and Policing (3)
  50:202:203 Confinement and Corrections (3)
  50:202:204 Courts and Criminal Law (3)
and
50:202:449 Ethics and Policy in Criminal Justice (3)
50:920:207 Introduction to Sociology (3)
50:920:301 Methods and Techniques of Social Research (3)
50:920:313 Theories of Crime and Delinquency (3)
50:920:316 Race and Ethnicity (3) or 50:920:332 Social Stratification (3)

Students also must complete at least 18 credits of the 42 required for the major in departmental or approved electives distributed as follows:

12 credits in upper-level and/or criminal justice related courses from the offerings of criminal justice and sociology:

50:202:303 Gender, Crime, and Justice (3)
50:202:314 Technology and Criminal Justice (3)
50:202:322 Juvenile Justice (3)
50:202:323 Varieties of Crime (3)
50:202:324 Organized Crime (3)

50:202:325 Violent Crime (3)
50:202:326 White Collar Crime (3)
50:202:337 The Poor, Minorities, and Justice (3)
50:202:340 Victimology (3)
50:202:345 Comparative Criminal Justice (3)
50:202:350 Punishment and Sentencing (3)
50:202:351 Contemporary Issues in Policing (3)
50:202:352 Community Corrections (3)
50:202:360 Topics in Police (3)
50:202:361 Topics in Criminal Law (3)
50:202:362 Topics in Corrections (3)
50:202:363 Topics in Juvenile Justice (3)
50:202:404 Service/Internship in Criminal Justice (BA)
50:202:410 Research Seminar in Criminal Justice (3)
50:202:454 Special Topics in Criminal Justice (3)
50:920:208 Contemporary Social Problems (3)
50:920:217 Drugs and Society (3)
50:920:280 Social Movements in Society (3)
50:920:315 Sociology of Complex Organizations (3)
50:920:329 Law and Society (3)
50:920:344 Sociology of Deviance (3)

3 credits in multicultural or non-Western courses from the offerings in anthropology and sociology:

50:070:323 Anthropology of American Culture (3)
50:070:338 North American Indians (3)
50:070:341 Peoples and Cultures of Latin America (3)
50:070:353 Peoples and Cultures of Southeast Asia (3)
50:070:356 Peoples and Cultures of Africa (3)
50:790:316 Government and Politics of the Far East (3)
50:790:335 Government and Politics of Sub-Saharan Africa (3)
50:790:336 Government and Politics of the Middle East (3)
50:920:270 Social Change in the Global Economy (3)
50:920:394 Japanese Society and Management (3)
50:920:396 Southeast Asian Societies (3)
50:920:430 African-American Culture (3)

3 credits from the crime- or justice-related offerings of philosophy, political science, psychology, social work, or urban studies:

French
50:420:245 Crime and Justice in French Literature in English Translation (3)

Philosophy
50:730:226 Ethics (3)
50:730:315 Some Contemporary Moral Issues (3)
50:730:316 Some Contemporary Moral Issues (3)

Political Science
50:790:372 Modern Political Theory (3)
50:790:381 Judicial Process (3)
50:790:411 American Constitutional Development (3)
50:790:442 Human Freedoms and the Constitution (3)

Psychology
50:830:341 Psychology and the Law (3)

Social Work
50:910:220 Introduction to Social Work and Social Services (3)
50:910:352 Groups at Risk in Contemporary Society (3)

Urban Studies
50:975:204 Poverty and Urban Environmental Systems (3)
50:975:219 History of the Ghetto and American Slums (3)
50:975:306 Basic Methods of Urban and Regional Planning (3)
50:975:312 Urban and Regional Planning Studio (3)
50:975:326 Planning and Administration of Municipal Services (3)
50:975:413 Urban and Regional Revitalization (3)

Minor Requirements

A minor consists of 18 credits, 10 of which must be above the 100 level and 6 of which must be at the 300 to 400 level. The department offers minors in anthropology, criminal justice, and sociology, and several of its courses count toward the justice and society minor and toward special programs in Latin American studies, nursing, social work, African-American studies, and women's studies. At least half of the credits in the minor must be taken at Rutgers.

Anthropology Minor

Course 50:070:213 Introduction to Cultural Anthropology is recommended before enrolling in any upper-level anthropology courses.

Students majoring in sociology and minoring in anthropology must take a minimum of 30 credits in sociology and 18 credits in anthropology. No specific courses in anthropology are required.

Students majoring outside sociology and minoring in anthropology must take a minimum of 18 credits in anthropology. No specific courses in anthropology are required.

Criminal Justice Minor

Students majoring in sociology and minoring in criminal justice must take a minimum of 30 credits in sociology and anthropology and a minimum of 18 credits in criminal justice as specified below.

All students minoring in criminal justice must take 18 credits: 9 credits in the core criminal justice curriculum and 9 credits from among the 300- to 400-level elective courses in sociology or criminal justice. Students must complete the following criminal justice core curriculum (9 credits):

50:202:201 Criminal Justice in American Society (3)
Two of the following three courses:
50:202:202 Police and Policing (3)
50:202:203 Confinement and Corrections (3)
50:202:204 Courts and Criminal Law (3)

In addition, 9 credits must be completed from among the upper-level crime and/or criminal justice-related courses from the offerings of criminal justice, sociology, or anthropology.

Justice and Society Minor

Students minoring in justice and society must take a minimum of 18 credits of interdisciplinary work distributed as follows:

3 credits in sociology or criminal justice: 50:920:313, 329, 344; or any criminal justice (202) course
3 credits in psychology: 50:830:335 or 341
3 credits in political science: 50:790:381, 401, 414, or 442

3 credits in philosophy: 50:730:315, 316, 319, or 320
6 credits of the student's choice from among courses listed for the minor

Sociology Minor

Students minoring in sociology must take a minimum of 18 credits in sociology, anthropology, and criminal justice. No specific courses in sociology are required except that 50:920:207 Introduction to Sociology is recommended for all upper-level sociology courses.

Courses (Anthropology 070)

Many of these courses are offered only once every academic year, or once every three terms.

50:070:211. Physical Anthropology (3)
The study of human evolution and living populations today. Reading the fossil records; man's primate heritage; culture and biological evolution; heredity and environment in human development; race differences; race, language, and culture; current trends in human evolution.

50:070:213. Introduction to Cultural Anthropology (R) (3)
Introduces the student to the study of man and culture. Topics include the nature and diversity of man and culture; the fieldwork process; culture change; political, economic, and social organizations; world view and values; socialization; social and religious movements; applications of anthropology to the contemporary world.

50:070:301. Biocultural Adaptation in Human Populations (3)
Introduction to how human populations adapt to their environments genetically, physiologically, behaviorally, and culturally. Topics include human adaptation to diet, disease, pollution, crowding, altitude, and cold; population variations and racial differences; biological and cultural adaptation in underdeveloped and urban societies.

50:070:307. Psychological Anthropology (3)
Prerequisite: 50:070:213.
Relation between sociocultural factors and psychological processes among members of different groups: socialization of the individual, culturally determined variations in personality structure, evaluation of theories of personality in light of cross-cultural evidence, and psychological factors in sociocultural change.

50:070:308. Childhood and Culture (3)
The study of childhood in various societies with attention to the socialization process in a variety of cultural contexts (e.g., family, peer groups, and social or religious institutions).

50:070:317. Gods, Cults, and Ritual (3)
Introduction to the basic theoretical approaches anthropologists bring to the study of religious institutions, symbols, and practices. Ethnographic case studies of religious groups in the United States and around the world used to explore how these groups adapt to and explain their larger social worlds, especially in the current era of transnational migration and economic change.

50:070:319. Visual Anthropology (3)
Examination and analysis of selected societies and cultures through films and complementary ethnographies.

50:070:320. Health and Healing (3)
The impact of sociocultural factors on illness and health. Causation, prevention, diagnosis, and treatment of disease in non-Western and Western societies; ethnomedical beliefs and practices; the impact of social and cultural change on the health-care system.

50:070:321. Death and Dying (3)
Death, dying, and bereavement in a variety of cultures as contexts for understanding the relation between biological and social processes, society and the individual, technology and social change, and socialization and communications. Application of research results in the area of death and dying for improved care of the dying and the bereaved.

50:070:323. Anthropology of American Culture (3)
Unity and diversity of American culture. Methods of study. Class, race, and ethnicity. Marginal and central groups. Community studies and ethnography.

50:070:336. Primate Behavior (3)
Nonhuman primate behaviors: communication, learning, play, aggression, sex, status, territoriality, sociability, and shared systems of behavior. Evolutionary theory, ecology, and sociobiology. Understanding human behavior through its evolution along the primate line. Similarities and differences between human and nonhuman primates.

50:070:338. North American Indians (3)
History, cultural background, and contemporary situation of major North American Indian groups. Special attention to social relations, political and religious movements, and cultural change.

50:070:340. Women, Men, and Culture (3)
Sex roles compared in various societies, from hunting-and-gathering to modernizing and industrialized societies, including economic, political, and domestic roles; social status; personality; and sexuality.

50:070:341. Peoples and Cultures of Latin America (3)
Cultural and historical background and contemporary situation of the peoples of Latin America including pre-Columbian Indian, European, and African influences. Consideration given to ethnic relations, stratification, religion, family, socioeconomic development, and current economic and political problems.

50:070:342. World Cultures (3)
Concentrates on study of a single culture each time presented. The choice of culture depends on the instructor.

50:070:344. Dance of the African Diaspora (3)
Exploration of how African dance forms and institutions were transported to and transformed in the New World. Includes studio component in which students learn and analyze the development of African-American dances.

50:070:350. Environmental and Cultural Behavior (3)
Focuses on the interaction of culture, man, and the environment. Covers basic principles of ecology to analyze communities and human populations in indigenous, colonial, and developing societies. Emphasis on cultural adaptation and the critical role of technology and economic organization in human ecosystems.

50:070:353. Peoples and Cultures of Southeast Asia (3)
Diverse social and cultural systems of Southeast Asia, including traditional systems and contemporary transformations.

50:070:356. Peoples and Cultures of Africa (3)
Examines the processes of continuity and change in Africa today and the similarities and differences in African cultures and societies. Focuses on the major institutions of kinship and family, economics, politics, and religion, and on contemporary issues such as socioeconomic development, urbanization, the role of women, and apartheid.

50:070:380. Food and Culture (3)
Culinary customs studied cross-culturally. Food in relation to sex, kinship, politics, economics, and religion. Examines sociocultural factors that influence what people eat; how, when, where, and how much; and the ways in which these factors relate to the problem of nutritional adequacy. Considers the interrelation between the sociocultural and biological aspects of "foodways."

50:070:405. Culture and Social Change (3)
Theories on cultural change, reactions to acculturations, role of new religious movements, problems in applied anthropology.

50:070:438. Methods and Theory in Cultural Anthropology (3)
Analysis and comparison of the major contemporary theoretical approaches in cultural anthropology. Methods and techniques of cultural and social structural analysis.

50:070:485,486. Special Topics in Anthropology (3,3)
Each year several courses may be offered under this general title, dealing with special topics intended to involve students in intensive study and investigation of specific issues in anthropological study and research. Topics usually change each year.

50:070:495,496. Individual Study in Anthropology (1-3,1-3)
Prerequisites: Permission of department and agreement by a department member to supervise the work. No more than 3 credits can be counted toward the minor in anthropology. No more than 6 credits can be counted toward the major in sociology.

Courses (Criminal Justice 202)

50:202:201. Criminal Justice in American Society (R) (3)
American crime and criminal justice agencies, i.e., police, courts, and correctional agencies. Emphasis on criminal justice as a system and the processing of persons accused of crime from the point of arrest to postconviction and release.

50:202:202. Police and Policing (3)
Prerequisite: 50:202:201.
History and structure of American police; law enforcement, order maintenance, and service functions; police misconduct, unionism, affirmative action, and race relations; and careers in law enforcement.

50:202:203. Confinement and Corrections (3)
Prerequisite: 50:202:201.
History and organization of American corrections. Emphasis on sentencing, custodial institutions, intermediate sanctions, community corrections, and mechanisms for release.

50:202:204. Courts and Criminal Law (3)
Prerequisite: 50:202:201.
Structures and functions of American courts and law. Courtroom work group; roles of attorneys, judges, and other court personnel; trial, trial outcomes, and appellate courts.

50:202:303. Gender, Crime, and Justice (3)
Prerequisite: 50:202:201 or permission of instructor.
Women as victims and criminal offenders; women in the criminal justice workforce; emerging legal doctrines on gender rights.

50:202:314. Technology and Criminal Justice (3)
Prerequisite: 50:202:201.
Discussion of how criminal justice has affected and been affected by the advent of technology and computers. Emphasis on innovations in policing, courts, corrections, and computer crime.

50:202:322. Juvenile Justice (3)
Prerequisite: 50:202:201.
Juvenile offenders and the changing perception of juvenile crime; the legal status of juvenile offenders and the role of the family court in preventing delinquency.

50:202:323. Varieties of Crime (3)
Prerequisite: 50:202:201.
Discussion of the many types of crime, ranging from victimless / morals offenses to property offenses to interpersonal crime. Emphasis on reduction policies.

50:202:324. Organized Crime (3)
Prerequisite: 50:202:201.
Historical development of national and international criminal organizations and organized crime core groups / syndicates. Also presents tactics to combat organized crime.

50:202:325. Violent Crime (3)
Prerequisite: 50:202:201.
Discussion of gangs, homicide, serial crimes of violence, interpersonal violence, and rape. Emphasis on crimes involving weapon use.

50:202:326. White Collar Crime (3)
Prerequisite: 50:202:201.
History and development of corporate crime, white collar crime, political corruption, and other "upper world" crimes. Emphasis on effective strategies for combating this phenomenon.

50:202:337. The Poor, Minorities, and Justice (3)
Prerequisite: 50:202:201.
Critical examination of the treatment of minorities and the poor by the criminal justice system. Focuses on the sources of tension between minorities and the poor on the one hand and personnel in the criminal justice system on the other.

50:202:340. Victimology (3)
Prerequisite: 50:202:201.
Study of the role and treatment of victims in the criminal justice system. Emphasis on risk factors in victimization and impacts of crime on victims.

50:202:345. Comparative Criminal Justice (3)
Prerequisite: 50:202:201.
Examination of the criminal justice systems of other nations. Emphasis on police, court, and corrections systems.

50:202:350. Punishment and Sentencing (3)
Prerequisite: 50:202:201.
Historical overview of punishment and punishment theory, with an emphasis on community corrections. Discussion of sentencing as a process, rights of offenders at sentencing, and factors involved in sentencing by judges and juries.

50:202:351. Contemporary Issues in Policing (3)
Prerequisite: 50:202:201.
Evaluation of new trends in policing plus police unionism, discrimination, and affirmative action, as well as explanations for misconduct and evaluation of its remedies, e.g., civilian review boards.

50:202:352. Community Corrections (3)
Prerequisite: 50:202:201.
Historical and philosophical overview of the theories behind alternatives to incarceration and their implementation in corrections. Emphasis on their impact and future.

50:202:360. Topics in Police (3)
Prerequisites: 50:202:201 and 202.
Perspectives of leading law enforcement practitioners on criminal justice topics. Emphasis on law enforcement as a career.

50:202:361. Topics in Criminal Law (3)
Prerequisites: 50:202:201 and 204.
Perspectives of leading attorneys or judges on criminal justice topics. Emphasis on careers.

50:202:362. Topics in Corrections (3)
Prerequisites: 50:202:201 and 203.
Perspectives of correctional practitioners on criminal justice topics. Emphasis on corrections as a career.

50:202:363. Topics in Juvenile Justice (3)
Prerequisites: 50:202:201 and 322.
Perspectives of leading practitioners in the juvenile system. Emphasis on juvenile justice as a career.

50:202:404. Service/Internship in Criminal Justice (BA)
Prerequisite: Permission of instructor. No more than 3 credits to be counted toward the major.
Supervised service / internship in criminal justice agency.

50:202:410. Research Seminar in Criminal Justice (3)
Prerequisite: Permission of instructor.
Independent research or special project under faculty supervision.

50:202:449. Ethics and Policy in Criminal Justice (3)
Prerequisites: 50:202:201 and 50:920:301.
The development, implementation, and evaluation of criminal justice policy. Ethics of law enforcement, court processes, and corrections. Evaluation of research on topics such as race, class, and gender disparities; capital punishment; gun control; drug policy; pornography; and gambling.

50:202:454. Special Topics in Criminal Justice (3)
Prerequisite: Permission of instructor.
Courses may be offered under this general title, dealing with special topics intended to involve students in intensive study and investigation on topics related to crime and justice.

Courses (Sociology 920)

50:920:207. Introduction to Sociology (R) (3)
The department recommends that students wishing to take advanced courses begin with Introduction to Sociology.
Introduction to the study of social groups and societies. Basic sociological methods and theoretical perspectives. Survey of basic subfields of sociology, such as socialization, family, religion, inequality, race and ethnicity, politics, deviance, and social change.

50:920:208. Contemporary Social Problems (R) (3)
Nonmajors may choose to take this course as a beginning course in sociology.
Survey of contemporary social problems with particular attention to how social issues become defined as "problems" and to how sociological knowledge can inform social policy choices. Topics include poverty, discrimination, family breakup, crime, mental illness, alcoholism, and others.

50:920:217. Drugs and Society (3)
Use and abuse of controlled substances in American society, public health and medical considerations, addiction and treatment, illegal markets, and drug control policy.

50:920:280. Social Movements in Society (3)
Emergence and growth of social movements in response to social trends, and their consequences in changing society; dynamics of organizational structure within movements as related to their goals, tactics, and ideologies. Topics include political movements, racial and ethnic movements, women's movements, religious movements, and movements within social institutions, such as health care and criminal justice.

50:920:301. Methods and Techniques of Social Research (3)
Introduces basic methods and techniques of social research: formulating research design; data-gathering techniques including survey research, data analysis, and presentation of findings.

50:920:306. Sociology of the Family (3)
A comparative study of the institutions of marriage and the family in various societies with special emphasis on the contemporary American family.

50:920:313. Theories of Crime and Delinquency (3)
Prerequisites: 50:920:207 and 301.
Explanation of crime and delinquency in American society. Topics include deterrence theory, biological explanations for crime, sociological theories, and conflict-based theories. Emphasis on social causes of crime.

50:920:315. Sociology of Complex Organizations (3)
Structure and functioning of organizations and bureaucracies. Organizational design, planning and change. Practical techniques for working effectively in organizations.

50:920:316. Race and Ethnicity (3)
The social construction of race and ethnicity in the U.S. and around the globe. The formation of racial and ethnic identities and the varieties of group interaction, including prejudice, discrimination, assimilation, institutional domination, and change. Changing concepts, boundaries, and interrelationships within a global context.

50:920:321. Urban Sociology (3)
Urban and suburban life in industrial and postindustrial environments. Social class, ethnic, and racial differences in communities. Technological change and strategies for community and regional development. Special attention to the South Jersey area.

50:920:323. Sociology of Childhood and Adolescence (3)
A study of social interaction during childhood and adolescence; emphasis on social interaction in various types of families and peer groups.

50:920:325. Sociological Theory (3)
Prerequisites: 50:920:207; 50:920:301 should be completed or taken concurrently.
An intensive study of the classical sociological thinkers—Marx, Durkheim, Weber—and a survey of contemporary theoretical traditions in the field.

50:920:326. American Communities–Structure and Change (3)
A look at the social structure of rural, suburban, urban, and metropolitan communities and an examination of the elusive concept of community in light of present-day movements in housing and schools, and other efforts at local self-determination.

50:920:329. Law and Society (3)
Current social trends and legal developments. Topics include legal analysis, white collar crime, and power and conflict.

50:920:332. Social Stratification (3)
Prerequisites: 50:920:207. 50:920:301 should be completed or taken concurrently.
Analyzes class inequality and the class structure in U.S. society, with particular attention to the processes by which social and economic inequalities are generated, reproduced, and changed. Emphasizes a variety of research and presentational skills that are transferable to the world of work. A fourth credit is sometimes available and links community service with the ethnographic research paper required in the course.

50:920:337. Women and Men in Society (3)
A comparative and historical examination of gender and inequality. A look at gender roles within the family, the workforce, and the legal system; socialization and gender; and sexuality and gender.

50:920:341. Communication (3)
The application of sociological skills to interpersonal and small group communication, particularly in the workplace. Topics include group process and development, leadership, decision making, problem solving, multicultural dimensions of communication, critical thinking, and conflict management.

50:920:344. Sociology of Deviance (3)
Explanations for deviance and conformity. Emphasis on varieties of deviance; social reactions to deviance, including moral panics; and sociological theories.

50:920:345. Sociology of Education (3)
Examines the interaction between schools and society and explores basic social concepts, such as stratification, social role, and bureaucratic organization in relation to the educational system. Analyzes the educational system itself with an emphasis on both stated objectives and actual social functions.

50:920:357. Individual and Society (3)
The individual's relationship to society and society's impact on the individual. Topics include the process of socialization, social roles, reference, reference groups, self-concept, and symbolic interaction.

50:920:370. Social Change in the Global Economy (3)
The emergence and growth of social movements in response to social trends, and their consequences in changing society; dynamics of organizational structure within movements as related to their goals, tactics, and ideologies. Topics include political movements, racial and ethnic movements, women's movements, religious movements, and movements within social institutions such as health care and criminal justice.

50:920:380. Conflict and Change in Society (3)
The ways in which broad processes of social conflict and change are reshaping societies, the world system, and the lives of people everywhere. Topics include the changing international division of labor, revolutions, and the postindustrial transition.

50:920:394. Japanese Society and Management (3)
An introduction to Japanese society and its economic achievements. An evaluation of which aspects of its management-labor relations, organizational structures, and macroeconomic policies can be imported or adapted elsewhere.

50:920:396. Southeast Asian Societies (3)
Introduction to the societies of Southeast Asia, ranging from Myanmar (Burma) on the west to the Philippines on the east. Examination of the cultural similarities that unite the region and the diversity that divides it. Historical development of Southeast Asian cultures. How Southeast Asians are reshaping their cultural heritage in response to development, westernization, and global capitalism.

50:920:402. Political Sociology (3)
The role of social class, gender, age, race, ethnicity, and other social factors in political life. Social organization of political parties and pressure groups. Social origins of political beliefs.

50:920:405. Applied Sociology (BA)
Prerequisite: 50:920:301.
Application of sociological methods and theories in applied settings. Topics include organizational consulting, focus groups, needs analysis, qualitative interviewing, counseling, creative thinking, program planning, marketing, policy analysis, proposal writing, and job search skills.

50:920:406. Sociology of Religion (3)
Introduction to the study of religious behavior both as it is affected by its social context and as it affects society. Emphasis on a major theme or themes from sociology of religion, using comparative study of religious institutions in various societies with special emphasis on American society.

50:920:418. Medical Sociology (3)
Examines the distribution of health and disease and looks at the social organization of the health-care system in contemporary society. Takes up the sociology of healing and therapy techniques and the interaction of patients and practitioners.

50:920:425. Cyberspace and Society (3)
Exploration of how computers and the Internet are changing society, and how individuals, groups, and societies are responding to the challenges and opportunities that cyberspace is creating. Focuses on fostering Internet and computer skills important for doing sociological and other forms of work in an increasingly computerized and networked society.

50:920:430. African-American Culture (3)
Evaluation of significant areas of African-American culture past and present, e.g., the slave community and its legacy, the psychocultural impact of racism, and varieties of contemporary popular culture.

50:920:431. Sociology of Work and Careers (3)
Covers occupational choices and career building, and the relation between the life cycle and the work cycle. Examines selected occupations and career patterns as a basis for understanding the division of labor in society.

50:920:438. Sociology of Aging (3)
Focuses on the age structure in society; period versus cohort studies of population; "ageism" as a form of prejudice and discrimination; the life cycle and age grading in society; the social correlates of growing old in various societies; the relation between age and other socially relevant characteristics such as sex, ethnicity, religion, and occupation; the sociology of retirement and the impact of "disengagement" on such things as family structure.

50:920:440. Sexuality and Society (3)
The relation between sexuality and society discussed, in particular the social organization and power relations that affect human sexual identity and behavior. Discussions and readings focus on sex and social institutions such as the family and the law, sexual variations, issues in reproductive sexuality, and the political economy of sex.

50:920:442. Mass Media and Popular Culture (3)
Stresses the content and transmission of popular art and its place in American culture. Surveys theories on the social evolution of popular forms from folk and elite cultures. Assesses the methods employed in analysis of mass culture.

50:920:445,446, 447,448, 463. Special Topics in Sociology (1-3,1-3,1-3,1-3,1-3)
Each year several courses may be offered under this general title, dealing with special topics intended to involve students in advanced study and research. The number of credits varies with the duration of the course. Course topics usually change each year. Specific prerequisites may be set for each course.

50:920:455. Sociolinguistics (3)
Topics include speech acts, interaction analysis and the social functions of language, the ethnography of communication, language and ethnic groups, language and social class, the social and political problems of bilingual countries, and language and nationalism.

50:920:487,488. Individual Study in Sociology (1-3,1-3)
Admission requires permission of department and agreement by a department member to supervise the work. Approval of written proposal is required prior to registration. No more than 6 credits can be counted toward the sociology major.

50:920:496,497. Honors Program in Sociology (3,3)
Open only to sociology majors, who must have a 3.5 grade-point average in sociology courses and a 3.5 cumulative grade-point average in all work.

SPANISH 940

Major requirements in Spanish can be completed only through daytime attendance.

Department of Spanish

Professors:

Eladio Cortes, A.B., LL.M., Oviedo; B.B.A., M.B.A., Santiago; M.A., Ph.D., Rutgers

Michele Muncy (emerita), A.B., M.A., Texas; Ph.D., Rutgers

Assistant Professor:

Alfonso Montelongo, B.A., Univ. Autonoma, Metropolina (Mexico); M.A., Colegio de Mexico; Ph.D., California (Santa Barbara)

The Department of Spanish offers courses in the language and culture of Spain and Spanish America. Some of the courses are designed to satisfy the needs of students planning to major in Spanish literature. Others are aimed at those students who would like to develop a working knowledge of the Spanish language and culture for use in their profession. Still others are aimed at those students who do not desire to develop a working knowledge of the Spanish language, but who would like to become familiar with some aspects of the Spanish culture. The listing for each course gives its aims.

There are no prerequisites for the courses unless specified in the course listing. However, unless stated otherwise, courses are given in the Spanish language, and students are encouraged to speak with the faculty teaching the course in order to ascertain its usefulness for the student and the necessary level of proficiency in the language. Spanish-speaking students may not receive credit for elementary Spanish.

Students with two years of high school Spanish who have been away from the language ten years or more may be permitted to take Spanish I for credit. Three or more years of high school Spanish requires enrollment in Spanish 121.

Students must earn a grade of C or better in the courses required for their major or their minor in Spanish.

Major Requirements

Students planning to major in Spanish must include in their program 42 credits in Spanish courses beyond the elementary level courses. In addition, they also must complete the following courses: 50:350:238 or 239 World Masterpieces and 50:510:101 and 102 Western Civilization I and II.

Students planning on graduate study are advised to elect another foreign language and should attain in it a level of proficiency equivalent to 50:940:201.

Minor Requirements

Students planning to minor in Spanish must complete 24 credits in Spanish courses, 12 of which must be above the 200 level.

Minor in Latin American Studies

The Department of Spanish offers a minor in Latin American Studies as part of its curriculum. Students deciding to minor in this program should consult the faculty of the department and refer to the Latin American Studies listing.

Departmental Honors Program

Students may qualify for graduating with honors in Spanish by fulfilling the regular requirements for the Spanish major and the following requirements:

1. Write a senior honors thesis of twenty-five to thirty-five pages. The topic for the thesis is worked out with an individual faculty member and written as an independent study project during two terms of the honors program while the student is enrolled in course 50:940:396, 495, or 496 (depending upon the year and term during which the student is undertaking the study).
2. Maintain a 3.5 grade-point average in the Spanish major and a 3.0 cumulative grade-point average in the overall undergraduate program.

Students normally inform the department of their intention of entering the honors program in the spring of the junior year.

In recognition of satisfactory completion of the honors program, the registrar will note on the student's permanent academic record Distinction in Spanish.

Independent Study

A student must have a grade-point average in Spanish of 3.3 or better to pursue independent study and may enroll in only one independent study course per term. Students must secure the permission of the department chairperson and the instructor under whom the student wishes to work prior to enrollment.

Teacher Certification in Spanish

Students seeking teacher certification in Spanish must complete the requirements for the major in the Spanish department as well as satisfy other requirements for certification. For details regarding admission to the teacher education program and its requirements, students should consult both their department adviser and the chairperson of the education department.

Study Abroad

Rutgers sponsors a summer program in Spain and a junior year in Mexico. Applicants need not be Spanish majors, although some previous study of the language is required. Interested students should consult the department chairperson.

The Spanish department organizes study trips to Spain in conjunction with the Center for Foreign Studies.

Courses

50:940:101. ELEMENTARY SPANISH (R) (4)
Rec. 3 hrs., lab. 2 hrs. For students with no knowledge of Spanish or one year or less of high school Spanish. Spanish-speaking students may not receive credit for elementary Spanish. Laboratory attendance required.
Training designed to lay a foundation for speaking, writing, reading, and understanding the language.

50:940:102. ELEMENTARY SPANISH (R) (4)
Rec. 3 hrs., lab. 2 hrs. For students with little knowledge of Spanish or no more than two years of high school Spanish. Spanish-speaking students may not receive credit. Laboratory attendance required.
A continuation of 50:940:101.

50:940:103. ELEMENTARY SPANISH (R) (3)
For students with no knowledge of Spanish or one year or less of high school Spanish or, in exceptional cases, permission of the department. Laboratory attendance expected. This course is available only at night.
Training designed to lay a foundation for speaking, writing, reading, and understanding the language.

50:940:104. ELEMENTARY SPANISH (R) (3)
For students with little knowledge of Spanish or no more than two years of high school Spanish. Laboratory attendance expected. This course is available only at night.
A continuation of 50:940:103.

50:940:121. INTERMEDIATE SPANISH (4)
Open to native Spanish-speaking students, to students who have completed 50:940:101 and 102, or had more than two years of high school Spanish, or as determined by placement examinations. Laboratory attendance required.
Oral and written practice, giving emphasis to grammar review and reading of selected materials.

50:940:122. Intermediate Spanish (4)
Rec. 3 hrs., lab. 2 hrs. Laboratory attendance required.
A continuation of 50:940:121. Grammar review with reading and oral practice.

50:940:127. Spanish for the Professions (4)
Rec. 3 hrs., lab. 2 hrs.
Intermediate-level Spanish course. Oral and written practice, giving emphasis to the application of the Spanish language to the special vocabulary of different professions.

50:940:131. Intermediate Spanish (3)
Prerequisites: 50:940:101,102 or 103,104 or more than two years of high school Spanish, or as determined by placement examinations, or for native Spanish-speaking students. Laboratory attendance expected. This course is available only at night.
Oral and written practice, giving emphasis to grammar review and reading of selected materials.

50:940:132. Intermediate Spanish (3)
This course is available only at night.
Continuation of 50:940:131. Grammar review with reading and oral practice.

50:940:151. Civilization of Spanish Peoples (3)
This course, given in English, may be used for the college's general language and literature requirement, but not for Spanish major or minor requirements.
A study of the principal characteristics of Spain or Spanish-American countries as manifested in their history, literature, arts, and daily life.

50:940:181-182. Spanish for Spanish-Speaking People (3,3)
(Formerly 50:940:211-212)
Designed for Spanish-speaking students. Grammar and writing exercises with emphasis on the special language problems encountered by these students.

50:940:200. Modern Spanish Readings (3)
(Formerly 50:940:131)
Extended readings from standard writers of the nineteenth and twentieth centuries, with discussion of their significance in Spanish literature and life. Oral and written practice continued.

50:940:201. Advanced Spanish Grammar and Stylistics (3)
(Formerly 50:940:132)
A continuation of 50:940:200, with part of the term dedicated to a review of advanced Spanish grammar and continuing with writing exercises and readings from twentieth-century literature.

50:940:203. Spanish Composition and Conversation (3)
Practice in speaking and writing, stressing the development of an adequate vocabulary in the discussion of everyday subjects.

50:940:204. Advanced Spanish Composition and Conversation (3)
Continuation of 50:940:203. Special emphasis on the use of idiomatic expressions in everyday life.

50:940:266. History of Spanish Literature (3)
An introduction to the study of Spanish literature. Acquaints the student with the main classical writers and the principal literary movements and tendencies from the origins of Spanish literature. Attention given to the relationship of the literary movements to social and historical movement, and the development of the arts.

50:940:267. History of Spanish-American Literature (3)
An introduction to Spanish-American literature. A continuation of 50:940:266.

50:940:301. Spanish and Spanish-American Culture and Civilization (3)
Course taught in Spanish language.
A study of the principal characteristics of Spain and Spanish-American countries as manifested in their history, arts, and daily life.

50:940:302. Spanish and Spanish-American Culture and Civilization (3)
Continuation of 50:940:301.

50:940:305. History of Spanish Fine Arts (3)
This course, given in English, may be used for the college's general language and literature requirement, but not for the Spanish major requirement.
Comprehensive study of the different styles and movements of Spanish painting, architecture, and music through the ages.

50:940:310. Special Topics (3)
A course in a selected topic of an advanced intermediate-level nature and not offered in the regular curriculum.

50:940:315. Commercial Spanish (3)
Customs and practices of commercial organizations in Spanish-speaking countries. Practical business correspondence.

50:940:353,354. Individual Studies in Spanish (BA,BA)
May be arranged for advanced students under exceptional conditions. Approval of the instructor must be secured, but may not be granted if the needs of the student can be met by the regular offerings.

50:940:396. Honors Program in Spanish (3)

50:940:401. Special Topics (R) (3)
A course in a selected topic of advanced level not offered in the regular curriculum. May be repeated for credit, assuming the subject matter is different.

50:940:415. Medieval Spanish Literature (3)
Study of selected works, with some introduction to old Spanish texts as well as analysis of works in modern Spanish adaptation.

50:940:421. Dramatic Literature of the Golden Age (3)
Spanish drama of the Siglo de Oro. Extensive analysis of the major works and themes of dramatists such as Lope de Vega, Tirso de Molina, and Calderon de la Barca.

50:940:426. Cervantes (3)
Life and works of Cervantes; careful reading of Don Quijote, the Novelas Ejemplares, and his theater; emphasis on their significance to contemporary life.

50:940:435. Nineteenth-Century Spanish Literature (3)
Major literary current of nineteenth-century Spanish literature through the works of leading authors. Begins with a brief study of eighteenth-century literature.

50:940:436. The Picaresque Novel (3)
A study of the picaresque genre in Spain, with detailed study of such works as El Lazarillo de Tormes, El Guzman de Alfarache, La Picara-Justina, and others. Special study of the Mexican Periquillo Sarniento.

50:940:438. Twentieth-Century Spanish Literature (3)
The evolution of Spanish literature from the Modernismo and the Generacion del '98 to the post–Civil War period. Study of today's main writers.

50:940:455. Early Spanish-American Literature (3)
A study of the literature of Spanish America from the colonial period to the end of the nineteenth century.

50:940:456. Spanish-American Modernismo (3)
The literature of Spanish America during the Modernismo.

50:940:457. Nineteenth-Century Puerto Rican Literature (3)
The Puerto Rican literary panorama in the nineteenth century. Lectures, readings, and discussions of works by such authors as Eugenio Maria de Hostos, Alejandro Tapia y Rivera, Jose Gautier Benitex, Manuel Zeno Gandia, and Jose de Diego.

50:940:458. TWENTIETH-CENTURY PUERTO RICAN LITERATURE (3)
The Puerto Rican literary panorama of the twentieth century. Lectures, readings, and discussions of the works of such authors as Luis Llorens Torres, Nemesio R. Canales, Luis Pales Matos, Francisco Arrivi, and Rene Marques.

50:940:463. CONTEMPORARY SPANISH-AMERICAN NOVEL (3)
Reading and interpretation of Spanish-American novelists of the modernist period to the present. Brief study of today's Spanish-American short story in last part of course.

50:940:464. CONTEMPORARY SPANISH-AMERICAN THEATER (3)
Latest currents in today's Spanish-American theater. Reading and study / discussion of several plays by prominent Spanish-American playwrights.

50:940:495,496. HONORS PROGRAM IN SPANISH (3,3)

SPEECH 950

See Fine Arts.

STATISTICS 960

See Mathematical Sciences.

THEATER ARTS (Dance 203, Speech 950, Theater Arts 965)

See Fine Arts.

URBAN STUDIES AND COMMUNITY PLANNING 975

Web Site: http: / / www.camden.rutgers.edu / dept-pages / urban / urbanpag.html

Major requirements in urban studies can be completed only through daytime attendance.

Department of Urban Studies and Community Planning

Chairperson: Michael Lang

Professors:

Gloria Bonilla-Santiago, B.A., Glassboro State (currently Rowan University of New Jersey); M.S.W., Rutgers; Ph.D., CUNY (City College)
Michael Lang, B.A., Drew; M.S., Ph.D., London School of Economics
Jon Van Til, B.A., Swarthmore College; M.A., North Carolina; Ph.D., California (Berkeley)

Departmental Associates:

Felipe J. Gorostiza, B.A., M.A., New York; M.A., Brown; M.A., Ph.D., Pennsylvania
Lambert Jackson, B.A., M.A., Ph.D., Delaware
Mark Rozewski, B.A., M.C.R.P., Rutgers

The Department of Urban Studies and Community Planning is concerned with the study and resolution of societal problems from an interdisciplinary base. The department is small, and individual attention to students is a point of pride among its faculty.

A common core of required courses provides the student with an understanding of urban institutions and how they function. This core is supplemented by options in urban planning and nonprofit organization leadership / civic education that allow students to develop specialized professional skills.

The core of required courses provides the student with knowledge appropriate to the urban generalist. These courses promote understanding of many professional and community planning approaches aimed at resolving urban and metropolitan problems. The options provide in-depth training appropriate to preprofessionals. Field experience and training are central to these specializations.

Majors in the department are urged to develop their plans of study in close consultation with their faculty adviser. Courses should be properly sequenced, insofar as possible, and each student's plan may be tailored to his or her specific needs, skills, and academic and professional aspirations.

The department offers a diverse range of other options to students, including:

1. Double majors, which allow the student to develop an urban studies major in addition to a major in another discipline or professional field.
2. Departmental minors, which permit majors in other departments to concentrate in one of the options of the Department of Urban Studies and Community Planning. Minors complete six courses in the department and should arrange their program in consultation with the departmental chairperson.

The department's approach integrates theory, analysis, and implementation. By combining formal instruction with practical experience, the department offers students a sound basis for both graduate study and professional opportunity. Cooperative projects between faculty and students involving research, evaluation, and fieldwork characterize much of the department's activity. A multipath approach aims to create a learning environment in which a community of scholars engages in problem solving.

Additional information about the department and program may be obtained from the department.

Major Requirements

The core curriculum for the major in urban studies consists of the following five courses:

50:975:102	Approaches to Urban Studies (3)
50:975:104	Power and Decision Making in Urban Communities (3)
50:975:231	Social Public Policy Planning (3)
50:975:306	Basic Methods of Urban and Regional Planning (3)
50:975:326	Planning and Administration of Municipal Services (3)

All majors are required to complete 30 credits if they present a minor in one of the following disciplines: art, biology, chemistry, economics, computer science, English, French, German, history, mathematics, music, nursing, philosophy, physics, political science, psychology, religion, sociology, or Spanish. Thirty-six credits are required without a designated minor.

Children and Families Option

Students enrolled in this option will learn about projects and programs aimed at promoting community efforts to enhance the learning and well-being of children and families. This option has three themes: 1) Social conditions that promote the resilience of children and families in the face of difficult circumstances; 2) Cultural and social roots that help explain the place and treatment of children and families in public discourse; and 3) Social issues and policies that deal with the origins of issues, such as urban poverty and violence. Students in this option are required to enroll in 50:975:347 and at least two of the following: 219, 319, 451, and 455. They also are expected to enroll in one practicum-based course.

Nonprofit Organization Leadership/Civic Education Option

Students enrolled in this option learn skills of community development practice as applied to the voluntary sector. This includes such groups as community organizations, volunteer organizations, nonprofit organizations, and a wide variety of social service organizations. Students typically perform community service in the courses offered in this option and enroll in two or more of the following courses: 50:975:220, 221, and 451. Also required in this option are two courses that do not involve a field placement, 50:975:204 and 219. Courses in this option are supported by the university's ACE (Associates for Civic Education) program.

Urban and Regional Planning Option

Students enrolled in this option will learn about the profession of urban and regional land use planning. Students will be exposed to a wide variety of physical and environmental planning issues and problems. They will learn about the array of methods and techniques employed by planners in their work. The planning option emphasizes practical experience with a rich diversity of planning applications in the city of Camden, as well as the Delaware Valley region. Planning option students are strongly encouraged to spend time during one term in a professional planning office in the public or private sector. Students also are strongly encouraged to take 50:920:301 Methods and Techniques of Social Research; 50:082:382 History of Design and Photography, a computer-aided design (CAD) based course; 50:080:347 Environmental Design; and at least one course in 50:790:487 Geographical Information Systems (GIS). Students enrolled in the urban planning option are required to enroll in 50:790:490 Transport Policy. In addition, students normally enroll in at least two of the following courses: 50:975:103, 312, 315, 339, 405, 413, 478, 487, and a practicum or special topics.

Urban and Regional Planning Certificate

Students must take seven courses (21 credits) in urban and regional planning to earn the certificate. These courses are intended to meet the academic eligibility requirements established by the New Jersey State Board of Professional Planners for the state examination for licensed professional planners. Please contact the department for further information regarding this professional license. Relevant courses include:

50:975:103 Urban and Regional Ecological Planning (3)
50:975:231 Social Public Policy Planning (3)
50:975:306 Basic Methods of Urban and Regional Planning (3)
50:975:312 Urban and Regional Planning Studio (3)
50:975:315 Theory and Practice of Urban and Regional Planning (3)
50:975:339 Housing and Planning Seminar (3)
50:975:347 Politics and Planning of Urban Social Services (3)
50:975:405 Legal Foundations of Urban and Regional Planning (3)
50:975:413 Urban and Regional Revitalization (3)
50:975:455 Community Welfare Planning (3)
50:975:478 History of Planning Thought (3)
50:975:487 Special Topics in Geographical Information Systems (3)
50:975:498 Independent Study in Planning (3)
50:975:499 Independent Study in Planning (3)

Substitute courses must be approved by a departmental adviser.

Minor Requirements

A general minor, which consists of any six courses in the department, is available. Nonurban studies majors also may minor in one of the options outlined above. Minor programs should be arranged in consultation with the departmental chairperson.

Details regarding current departmental offerings, projects, and programs are available at the departmental office at 323 Cooper Street. Interested students are invited to stop by for further information and become acquainted with the work of the Department of Urban Studies and Community Planning.

Electives

The department also accepts as electives the following courses offered by other departments:

50:080:347 Environmental Design (3)
50:082:382 History of Design and Photography (3)
50:220:330 Urban Economics (3)
50:510:255 The Rise of the City (3)
50:512:415 History of the American City (3)
50:790:331 Urban Policy and Economic Development (3)
50:790:360 Urban Public Policy (3)
50:920:321 Urban Sociology (3)

Departmental Honors Program

The department encourages any student with an overall grade-point average of 3.0 or better to consider applying for the departmental honors program. Students accepted for this program normally enroll in two terms of 50:975:498,499 Independent Study in Urban Studies. This program consists of a year of intensive research, resulting in an honors thesis produced under the guidance of a departmental adviser. Interested students should contact the chair of the department during their junior year.

Courses

50:975:102. Approaches to Urban Studies (R) (3)
(Formerly 50:975:203)
An introduction to basic approaches to the study, analysis, and resolution of urban problems, which are explored in their social, economic, political, and physical contexts. Examination of the development of a theoretical approach to contemporary urban studies. Serves as an introduction to further work in urban studies and community development.

50:975:103. Urban and Regional Ecological Planning (3)
The network of interdependency and interaction between the human-made and the natural environments. The role of ecological planning in controlled growth and protecting the environment. Examination of environmental protection legislation on the federal, state, and local levels. Use of New Jersey case studies involving the Pinelands Commission and the Coastal Area Facilities Review Act.

50:975:104. Power and Decision Making in Urban Communities (R) (3)
The theory and structure of the decision-making process in the urban community, with emphasis on the dynamics of the group as well as the systemic constraints bearing on the process. Formal and informal power structures in the urban community and their influence on the decision-making process. The power and functioning of group types and their relationship to the decision-making process. Topics include urban governing structures, corporatism, elitism, pluralism, public policy, and technology of power.

50:975:204. Poverty and Urban Environmental Systems (R) (3)
Problems of urban poverty in the context of income insufficiency and inequality in the American socioeconomic system. Factors contributing to urban poverty including population growth, technological change, racism, migration patterns, and subcultural conflicts. Lifestyles of the urban poor and institutional structures that handicap or aid them in escaping the poverty trap. The needs of the urban poor considered relative to present programs to eliminate poverty. Existing but unmet needs identified and possible solutions explored.

50:975:219. History of the Ghetto and American Slums (R) (3)
The historical development, characteristics, and functioning of ghettos and slums in America. Social organization in slum areas: formal and informal social controls; historical and contemporary theories of slums and ghettos. The persistence of the ghetto in capitalist societies. Public and private programs instituted to deal with ghetto problems. A conceptual framework developed for possible action directed toward change.

50:975:220. Civic Education and Community Service (3)
Minimum of five hours of community service per week and class attendance required.
Provides students with "hands-on" experience in voluntary community service. The pilot course in the CASE (Citizenship and Service Education) program.

50:975:221. Literacy Practicum (3)
Tutor training for five weeks in a wide range of instructional methods followed by service learning in the community tutoring children, youth, or adults through schools and agencies.

50:975:231. Social Public Policy Planning (3)
Analytic study of the development of social public policy planning in the United States. Development of theoretical models of interaction between social, political, and economic events, and the legislative and professional response.

50:975:306. Basic Methods of Urban and Regional Planning (3)
An introduction to the history and methodology of urban and regional planning. Covers legal aspects of planning in the United States and touches on planning abroad. Organization and operation of the planning function in local, state, and federal governments.

50:975:312. Urban and Regional Planning Studio (3)
Intensive study of the problems and opportunities of a selected urban, rural, or suburban area. Focuses on development of physical action proposals resulting from an analysis of the total configuration of needs: fiscal, social, economic, and physical. Working in small teams, participants create a community development, rehabilitation, or conservation plan for their selected area.

50:975:315. Theory and Practice of Urban and Regional Planning (3)
Prerequisite: Junior or senior status or permission of instructor.
Review of modern land-use planning theories and techniques. Purpose and objectives of plans and planning. Comparative theories and approaches to planning.

50:975:319. Urban Health-Care Systems and Human Needs (3)
Examination of urban health-care systems including consideration of such components as the structure and operations of local health departments, community and other institutional facilities, practitioner services, emerging forms of group practice, neighborhood health units, and other public and private systems serving the ghetto and other local urban communities. Major health needs which these services are designed to meet. Existing gaps in provision of health care and possible approaches to their solution. Includes field exploration of health services in the Camden community.

50:975:320. Energy and the Urban Environment (3)
The role of different energy sources as bases of urban life and development. Future study perspectives presented and explored. Approaches to the resolution of ecological problems discussed, with emphasis on maintaining the city as a viable environment for human growth and development.

50:975:326. Planning and Administration of Municipal Services (3)
Prerequisites: Junior or senior status and a good background in social science.
The nature, objectives, and functioning of services customarily found in urban communities: municipal organizational structures; location of departments, agencies, boards, commissions, and other entities therein. Agency responsibilities, methods of operation, and limitations. Law enforcement, environmental protection, educational services, health services, welfare services, sanitation, and zoning; case studies in Camden and other South Jersey communities.

50:975:339. Housing and Planning Seminar (3)
Prerequisite: Junior or senior status or permission of instructor.
Analysis of the current housing situation in America, including the housing crisis, government and grass-roots response, obstacles inhibiting housing construction, new technologies, and major housing problems and sponsorship. Technical aspects of housing problems and sponsorship. Housing situations in Camden and other South Jersey communities used for case studies.

50:975:347. Politics and Planning of Urban Social Services (3)
Relationships between clients and bureaucracies and the politics and planning of bureaucratic reform. Special emphasis on the effects of urban social services (schools, police, welfare, etc.) on the poor and their communities.

50:975:369. COMMUNICATIONS AND URBAN PROBLEMS (3)
The role of mass communication in an urban society, with special attention to its place in ghetto communities. Transmission and reception of social, cultural, and economic stimuli through verbal and nonverbal channels. Differing levels and types of response by various socioeconomic strata in urban communities as they relate
to urban problems and programs.

50:975:395. RESEARCH METHODOLOGY IN URBAN PLANNING (3)
Prerequisite: Junior or senior status or permission of instructor.
Quantitative and qualitative methods of analysis in urban planning: survey methodology, data requirements, and collection methods; sampling processes, data presentation, analysis and interpretation, development and selection of alternatives; cost-benefit analysis.

50:975:405. LEGAL FOUNDATIONS OF URBAN AND REGIONAL PLANNING (3)
Prerequisite: Junior or senior status or permission of instructor.
Development of the legal foundations for urban and regional planning. Zoning, subdivision, land tenure, eminent domain, growth controls, and agricultural land preservation used to illustrate principles of constitutional and administrative law, as well as the law of contracts, property, torts, and procedure.

50:975:413. URBAN AND REGIONAL REVITALIZATION (3)
The range of strategies relevant to problems of urban fiscal and administrative stress. An assessment of their interrelationship and contributions to an overall revitalization policy. Examination of the privatization of inner-city redevelopment and its relationship to urban theory. Presentations by outside experts, agencies, interest groups, and professionals that have an impact on the formulation of urban public policy. Topics include emerging urban structures, gentrification, historic preservation, public-private ventures, local business development, and innovative financing.

50:975:421. URBAN STUDIES PRACTICUM I (3)
Prerequisites: Junior or senior status, two courses in the department, and permission of instructor.
Experiential learning in urban field placement related to academic study and preparation. Students may identify their preferred practicum agency from a list available in the department, or they may approach an agency themselves, with the counsel of faculty. Fieldwork is supervised at the agency level and regular meetings are held with the faculty member directing the section.

50:975:422. URBAN STUDIES PRACTICUM II (3)
Prerequisite: 50:975:421.
A continuation of 50:975:421.

50:975:451. COMMUNITY LEADERSHIP TRAINING SEMINAR (3)
Prerequisites: 50:975:220 or 221 and permission of instructor.
The process of community development in a variety of settings. In a seminar environment that involves both cognitive study and experiential laboratory training, community development examined in the neighborhood, at work, at home, in religious life, and in schools and colleges. The seminar looks at its own group process in an effort to develop both awareness of, and competency in, its members' individual capacities for leadership in community building.

50:975:455. COMMUNITY WELFARE PLANNING (3)
The social planning process in selected areas of public policy. Linkages between the reform impulse, federal legislation, bureaucratic implementation, and actual local service delivery. Topics include voluntarism and governmental initiative, federalism, bureaucracy and policy implementation, revenue sharing, regionalism, and decentralized service delivery.

50:975:478. HISTORY OF PLANNING THOUGHT (3)
Prerequisite: Junior or senior status or permission of instructor.
Major ideas in urban and regional planning in history. A look at both utopian and practical concepts related to the built environment. The origin, growth, and impact of these ideas on the evolution of planning and urbanization in the context of broader social, intellectual, and technological change.

50:975:487. SPECIAL TOPICS IN GEOGRAPHICAL INFORMATION SYSTEMS (3)
Introduction to computer systems for the storage, management, analysis, and display of geographic data. Emphasis on applications relating to urban and environmental planning.

50:975:498,499. INDEPENDENT STUDY (BA,BA)
Independent supervised study. Students arrange to work with individual faculty members to design and present a significant research project.

WALT WHITMAN PROGRAM IN AMERICAN STUDIES

Directors:

Tyler Hoffman, Department of English
Carol Singley, Department of English, Women's Studies Program
Alan Tarr, Department of Political Science

Faculty Advisers:

Katrina Hazzard-Donald, Department of Sociology
Geoffrey Sill, Department of English
Roberta Tarbell, Department of Art
Jon Van Til, Department of Urban Studies and Community Planning, CASE Program
Allen Woll, Department of History, Film Studies Program

The Walt Whitman Program in American Studies is an interdisciplinary undergraduate minor consisting of a concentration of six courses (18 credits) that illuminate diverse aspects of American culture. The minor combines course work in American studies with courses from relevant disciplines (literature, history, arts and material culture, and the social or behavioral sciences), giving students the opportunity to examine American experience from a variety of perspectives.

Minor Requirements

To integrate these diverse perspectives, students enroll in an interdisciplinary American studies seminar, which introduces them to the critical and theoretical paradigms of American studies and their applicability to a range of American writers and texts. This seminar, taken at an early point, serves as a basis for the minor. Students, with advice of program faculty, also take 12 other elective credits, which introduce them to a particular issue or set of problems in American studies. At least 3 of these credits will be in English and at least 3 credits will be in history, but no more than 6 elective credits will be in any one discipline. At least 6 elective credits will be at the 300 level or above. During the senior year, students complete an Independent Study in American Studies, consisting either of a research project or an internship at a local museum, library, or historical site.

Walt Whitman Option

This option encourages students to take advantage of the unique cultural resources of Camden, where Whitman spent the last years of his life and where he attained international fame. Few figures profit from interdisciplinary study as much as Whitman, whose poetry and prose is a rich repository of literary, artistic, musical, historical, religious, and philosophical currents. The Walt Whitman House, just a few blocks from the Rutgers–Camden campus, is one of the best preserved literary landmarks in the United States, and the adjacent Whitman library has a fine collection of writings by and about Whitman.

Students choosing this option fulfill the same requirements as for the American studies minor, but may select courses that offer an international context or background for Whitman's writings. The senior Independent Study involves either research on Whitman or an internship at the Walt Whitman House.

Courses

50:050:301. AMERICAN STUDIES SEMINAR (3)
Using one or more major figures as a focal point, this interdisciplinary course introduces students to the issues, materials, and methodologies of American studies. Students develop analytical and research tools necessary to understand both the diversity of American experience and the formation of a national culture. Readings include primary sources and recent scholarship. In addition to Walt Whitman, who lived and wrote in Camden, other figures who raise important issues and problems in the development of American culture and civilization are examined.

50:050:401. INDEPENDENT STUDY IN AMERICAN STUDIES (3)
Under the direction of faculty, students research a selected topic or complete an internship at a local museum, library, or historical site. Taken in the senior year.

Other courses for the minor are selected from appropriate American topics offerings within the liberal arts college, such as:

Art
50:082:367 American Art: 1650–1900 (3)
50:082:368 Twentieth-Century American Art (3)
50:082:382 History of Design and Photography (3)

Economics
50:220:310 American Economic History (3)

English
All 352 (American literature) courses

Film Studies
50:354:315 American Film (3)

History
All 512 (American history) courses open to nonmajors, except 50:512:211 and 212

Music
50:700:309 American Music (3)
50:700:348,349 Jazz, Rock, Folk, and Pop (3,3)

Philosophy
50:730:367 American Philosophers (3)

Political Science
50:790:304 Politics and Culture (3)
50:790:356 Women and Politics (3)
50:790:364 Politics of Minority Groups (3)
50:790:375 American Political Thought (3)
50:790:401 American Constitutional Development (3)
50:790:409 Law and American Civilization (3)
50:790:422 Politics, Business, and American Capitalism (3)
50:790:434 Government, Business, and American Politics (3)
50:790:442 Human Freedoms and the Constitution (3)

Psychology
50:830:203 The Psychology of Minority Groups (3)

Religion
50:840:216 The Black Church (3)
50:840:307 Religion in Contemporary America (3)

Sociology
50:070:323 Anthropology of American Culture (3)
50:070:338 North American Indians (3)
50:070:344 Dance of the African Diaspora (3)
50:202:201 Criminal Justice in American Society (3)
50:920:306 Sociology of the Family (3)
50:920:316 Race and Ethnicity (3)
50:920:321 Urban Sociology (3)
50:920:332 Social Stratification (3)
50:920:370 Social Changes in the Global Economy (3)
50:920:430 African-American Culture (3)
50:920:442 Mass Media and Popular Culture (3)

Theater Arts
50:965:215 Black Theater I (3)
50:965:216 Black Theater II (3)
50:965:307 American Popular Entertainment (3)
50:965:308 American Musical Theater (3)

Urban Studies and Community Planning
50:975:204 Poverty and Urban Environmental Systems (3)
50:975:219 History of the Ghetto and American Slums (3)

With the approval of a program director, students pursuing the Walt Whitman option may select from the preceding courses, as well as from the following courses, which offer an expanded context for understanding Whitman's work:

English
50:350:322 Romantic Period (3)
50:350:324 Victorian Literature (3)
50:350:377 Literature and Sexuality (3)

Music
50:700:337 Opera (3)

Psychology
50:830:312 Psychology of Consciousness (3)
50:830:347 Psychology of Human Sexuality (3)

Religion
50:840:211 History of Religions: The Eastern Experience (3)
50:840:325 Myth and Symbol (3)

WOMEN'S STUDIES 988

Director: Carol Singley, Department of English

Faculty

Beth Adelson, Psychology
Georgia Arbuckle, Chemistry
Kathleen Ashton, Nursing
Laurie Bernstein, History
Stuart Z. Charmé, Religion
Baoline Chen, Economics
Marie Cornelia, English
Sheila Cosminsky, Sociology, Anthropology, and Criminal Justice
Luis Garcia, Psychology
Janet Golden, History
Sharon Gramby-Sobukwe, Political Science
Mary Greipp, Nursing
Nancy Hopkins, Chemistry
Louise Horowitz, French
Michael Lang, Urban Studies and Community Planning
Caroline Levine, English
Jing Li, Chemistry
Dorothy Mandelbaum, Psychology
Janet Morford, French
Patricia Peacock, Business
Suneeta Ramaswami, Computer Science
James Rushing, German
Kim Shienbaum, Political Science
Carol Singley, English
Lisa Szeto, Biology
Roberta Tarbell, Art

Women's studies promotes the exploration of women's lives and contributions throughout history and today. It draws on many disciplines—anthropology, art, English, history, psychology, religion, science, sociology—answering our growing intellectual and social needs to understand gender better. Women's studies not only acknowledges the significance of women's work and experience, it also develops critical tools to analyze gender as a category that shapes our thoughts, values, accomplishments, and social interactions. The broad base of women's studies makes it an important field of study for men as well as women.

The objectives of this program include the following:

1. to offer undergraduates understanding of new scholarship on gender
2. to prepare interested students for graduate work in the field of women's studies
3. to permit students to learn about the lives of women past and present through knowledge gathered by scholars in a wide array of disciplines
4. to develop leadership skills among women

Minor Requirements

Students minoring in women's studies are required to take 50:988:201 Introduction to Women's Studies, if possible before they begin to take electives. 50:988:441 Senior Seminar in Women's Studies is required during the senior year. Special arrangements can be made for evening students interested in completing the minor. An individualized major with a concentration in women's studies can be developed by a student in consultation with the director of the program. In order to achieve the four objectives of the program, the minor requires a minimum of 18 credits from among the following courses (or other relevant courses that are approved by the program director). At least 6 credits of the departmental courses must be at the 300 level or above.

Courses

50:988:201. Introduction to Women's Studies (3)
Introduction to the study of women as a diverse social group with
a history, culture, and experience of its own, and to the study of gender as a category of social, cultural, and economic organization. An interdisciplinary and cross-cultural approach to incorporating race, class, and ethnicity as well as gender analysis. Emphasis on contemporary issues pertaining to women, including feminism and antifeminism, work, sexuality, family relations, reproduction, and politics.

50:988:410. Women and Work (3)
Studies how career salience develops in women. Begins with an examination of the psychology of work and then explores aspects of feminine psychological development that may affect instrumental functioning. The psychology of women and the psychology of work are next integrated into a close look at psychological issues that may explain why and how some women develop strong, and often nontraditional, career interests, attitudes, and behaviors.

50:988:441. Senior Seminar in Women's Studies (3)
Prerequisite: Any 15 credits in approved women's studies minor program or permission of instructor(s).
Integration of the minor: readings and discussions about the nature, problems, and future of women as dealt with in the natural and social sciences and the humanities and fine arts.

50:988:491,492. Special Topics in Women's Studies (3,3)
A course on a specially selected topic.

50:988:495,496. Independent Study in Women's Studies (BA,BA)
Prerequisite: 50:988:201.
Advanced students work individually with an instructor on a self-determined course of study.

Related Courses in Other Fields

Anthropology

50:070:340. Women, Men, and Culture (3)
50:070:485,486. Special Topics in Anthropology (3,3) *

Art History

50:082:305. Women and Art (3)

Biology

50:120:105. The Facts of Life (3)
50:120:106. Human Reproduction and Development (3)

Economics

50:220:366. Special Topics on Contemporary Economic Issues (3) *

English

50:350:377. Literature and Sexuality (3)
50:350:388. Women in Literature (3)
50:350:393,394. Special Topics in Literature (1-3,1-3) *
50:350:441. Literary Theory and Criticism (3)
50:350:481,482. Readings in Major Authors (3,3) *
50:352:391,392. Special Topics in American Literature (3,3) *
50:352:436,437. Major Writers of America (3,3) *

Film

50:354:391,392,393,394. Special Topics in Film (3,3,3,3) *

* Special topics courses are approved for Women's Studies credit if they are listed in the Women's Studies flyer issued each term. Other courses may be approved for Women's Studies credit by the program director. Please note that some of the above courses have departmental prerequisites.

French

50:420:240,241. SPECIAL TOPICS IN FRENCH LITERATURE IN ENGLISH TRANSLATION **(3,3) ***

50:420:244. WOMEN IN FRENCH LITERATURE IN ENGLISH TRANSLATION **(3)**

German

50:470:391,392. SPECIAL TOPICS IN GERMAN LITERATURE IN ENGLISH TRANSLATION **(3,3) ***

History

50:510:480. SPECIAL TOPICS IN EUROPEAN, AFRICAN, OR ASIAN HISTORY **(3) ***

50:512:220. WOMEN IN AMERICAN HISTORY **(3)**

50:512:480. SPECIAL TOPICS IN AMERICAN HISTORY **(3) ***

Linguistics

50:615:225. LANGUAGE, CLASS, AND CULTURE **(3)**

50:615:386,387. SPECIAL STUDIES IN LINGUISTICS **(3,3) ***

Management

52:620:467. WOMEN AND MEN IN MANAGEMENT **(3)**

Philosophy

50:730:327. WOMEN AND PHILOSOPHY **(3)**

Political Science

50:790:356. WOMEN AND POLITICS **(3)**

Psychology

50:830:203. THE PSYCHOLOGY OF MINORITY GROUPS **(3)**

50:830:206. PSYCHOLOGY OF MARRIAGE AND THE FAMILY **(3)**

50:830:347. PSYCHOLOGY OF HUMAN SEXUALITY **(3)**

50:830:373. PSYCHOLOGY OF WOMEN **(3)**

50:830:393. HUMAN EMOTIONS **(3)**

50:830:458,459. SPECIAL TOPICS IN PSYCHOLOGY **(2-3,2-3) ***

50:830:463,464. SPECIAL TOPICS IN PSYCHOLOGY **(2-3,2-3) ***

Religion

50:840:330. WOMEN AND RELIGION **(3)**

Russian

50:860:349. SPECIAL TOPICS: RUSSIAN LITERATURE/STALIN **(3) ***

Sociology

50:920:306. SOCIOLOGY OF THE FAMILY **(3)**

50:920:323. SOCIOLOGY OF CHILDHOOD AND ADOLESCENCE **(3)**

50:920:337. WOMEN AND MEN IN SOCIETY **(3)**

50:920:357. INDIVIDUAL AND SOCIETY **(3)**

50:920:431. SOCIOLOGY OF WORK AND CAREERS **(3)**

50:920:438. SOCIOLOGY OF AGING **(3)**

50:920:440. SEXUALITY AND SOCIETY **(3)**

50:920:445,446. SPECIAL TOPICS IN SOCIOLOGY **(1-3,1-3) ***

50:920:447,448. SPECIAL TOPICS IN SOCIOLOGY **(1-3,1-3) ***

50:920:463. SPECIAL TOPICS IN SOCIOLOGY **(1-3) ***

Urban Planning

50:975:498,499. INDEPENDENT STUDY **(BA,BA) ***

ZOOLOGY 990

See Biological Sciences.

* Special topics courses are approved for Women's Studies credit if they are listed in the Women's Studies flyer issued each term. Other courses may be approved for Women's Studies credit by the program director. Please note that some of the above courses have departmental prerequisites.

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Programs, Faculty, and General Information

ADMINISTRATION

Milton Leontiades, Ph.D., Dean
Larry Gaines, M.B.A., Assistant Dean for Administration
Izzet Kenis, Ph.D., Director, M.B.A. Program
Patricia Peacock, Ed.D., Director, Rutgers Small Business Development Center (RSBDC)
Paul Pressley, M.B.A., Director of External Affairs
Samuel Rabinowitz, Ph.D., Associate Dean
William Reynolds, Ed.D., Director of Center for Management and Entrepreneurship

FACULTY

Professors:

Charles J. Coleman, B.S., St. Joseph's; M.S., Cornell; M.B.A., Ph.D., SUNY (Buffalo)
Haim Falk, B.Ac., Diploma in Business Administration, M.B.A., Hebrew (Tel Aviv); Ph.D., Hebrew (Jerusalem)
Kenneth E. Kendall, B.S., Canisius College; M.B.A., Ph.D., SUNY (Buffalo)
Milton Leontiades, B.A., M.B.A., Indiana; Ph.D., American
Briance Mascarenhas, A.B., Warren Wilson; M.B.A., South Florida; M.A., Ph.D., California (Berkeley)
Panayiotis Theodossiou, B.A., Thessaloniki (Greece); M.A., CUNY (Queens College); M.B.A., CUNY (Baruch College); Ph.D., CUNY (Graduate School and University Center)
Uzi Yaari, B.A., Hebrew; Ph.D., Chicago

Associate Professors:

Swaminathan Badrinath, B.A., M.A., Delhi (India); M.B.A., Indian Institute of Management; Ph.D., Purdue
Snehamay Banerjee, B.Tech., M.Tech., Indian Institute of Technology; M.S., Case Western Reserve; M.S., Ph.D., Maryland
Alok Baveja, B.A., Indian Institute of Technology; M.S., Ph.D., SUNY (Buffalo)
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Diana L. Day, B.S., M.S., Louisiana State; Ph.D., Columbia
Chon-Huat Goh, B.S., Rhodes; M.B.A., Ph.D., Texas
Franklin S. Houston, B.A., SUNY (Binghamton); M.B.A., Indiana; Ph.D., Purdue
Emel Kahya, B.A., Wellesley; M.B.A., M.A., Ph.D., Rice
Carol Kaufman-Scarborough, B.S., Duquesne; M.B.A., Rensselaer Polytechnic Institute; Ph.D., Temple
Julie E. Kendall, B.A., Minnesota; M.A., Wisconsin (Milwaukee); Ph.D., Nebraska (Lincoln)
Izzet Kenis, B.S., Academy of Commerce and Economics (Istanbul); M.B.A., Ph.D., New York
Emeka Nwaeze, B.A., M.P.A., Southern; Ph.D., Connecticut
Eugene A. Pilotte, A.A.S., B.A., Purdue; M.B.A., Ph.D., Indiana
Gayle Porter, B.B.A., M.B.A., Wichita State; Ph.D., Ohio State
Samuel Rabinowitz, B.B.A., CUNY (Baruch College); M.A., Ph.D., Michigan State
Rakesh Sambharya, B.E., Poona (India); M.B.A., Indian Institute of Management (Calcutta); Ph.D., Temple
Robert M. Schindler, B.A., Pennsylvania; M.S., Ph.D., Massachusetts

Assistant Professors:

John P. Broussard, B.S., Louisiana State; M.B.A., Millsaps College; Ph.D., Louisiana State
Jongsoo Han, B.B.A., M.B.A., Yonsei (Korea); Ph.D., Pittsburgh
Michalis Ioannides, B.S., East Anglia (U.K.); M.S., Warwick (U.K.); Ph.D., Reading (U.K.)
Muhammadou M.O. Kah, B.S., M.S., Stevens Institute of Technology; M.S.F., George Washington; Ph.D., Stevens Institute of Technology
Sungsoo Kim, B.A., Chung-ang (Korea); M.B.A., M.Ph., Ph.D., Baruch
Arun Kumaraswamy, B.Tech., Indian Institute of Technology; Ph.D., New York
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Julie Ruth, B.S., Georgetown; M.A., Texas; Ph.D., Michigan
Qin Jennifer Yin, B.S., M.S., New Orleans; Ph.D., Houston

ABOUT THE SCHOOL

In April 1988, the university's Board of Governors established a school of business at Rutgers on the Camden campus. The School of Business–Camden received approval from the New Jersey Department of Higher Education in May 1988. The School of Business–Camden received accreditation through the American Assembly of Collegiate Business Schools (AACSB) in 1995. The school offers undergraduate programs in accounting, finance, management, and marketing, as well as a graduate program in business administration. The school has an undergraduate enrollment of over 400 students, and its graduates have entered many areas in the fields of accounting, marketing, management, and finance.

MISSION STATEMENT

The mission of the School of Business–Camden is to generate and disseminate knowledge related to the improvement of management while seeking to be a recognized leader in delivering high-quality, cost-effective business education in southern New Jersey. Activities essential to the performance of this mission are guided by the following beliefs and values:

Scholarship among the faculty is our strength. Faculty research is emphasized in order to develop original thinking and information about business fields and disciplines that can be used to enrich the quality of the knowledge disseminated to students. The generation of knowledge is accomplished by hiring, supporting, and promoting faculty who publish in national and international scholarly journals. Scholarship and the development of theory also are combined with their practical application to improve critical thinking and problem solving.

Teaching is valued and teaching effectiveness is stressed in the hiring, retention, and promotion of faculty. Students are prepared for careers in general management, as well as the functional areas of business, through the use of diverse teaching methods and the employment of advanced technology.

Faculty service is encouraged in the professions, the university, and the school. Through the Small Business Development Center and the Center for Management and Entrepreneurship, training and educational services are provided to businesses in the greater Camden community.

Collegiality is encouraged among the faculty, and students are offered a high degree of personal attention. While part of a large state university, the School of Business–Camden seeks to creatively use its relatively small size in developing new opportunities and programs.

ADMISSION

Students who seek a degree in the school's programs are required to complete a defined group of prebusiness courses during their first and second years. Students may apply for admission to the School of Business–Camden after completion of 45 college credits. Until the application is filed and approved, a student is classified as a prebusiness

major. Acceptance to the School of Business–Camden is competitive. Admission is generally based on a grade-point average of 2.6 or above in the eleven courses that follow, plus a cumulative grade-point average of 2.0 in all other college courses. However, the applicant should check with the Office for Student Affairs for the standard grade-point average for the term of application. The standard is set by the faculty and may change each term. The student's admission process is governed by the standard that existed at the time of acceptance. It is the student's responsibility to keep informed of changes in the standard by contacting the Office for Student Affairs. Refer to the School of Business–Camden Student Advising Handbook for more information concerning admission into the School of Business–Camden. Courses required for admission to the School of Business–Camden are:

52:010:101 Introduction to Financial Accounting (3)
52:010:202 Management Accounting (3)
52:140:101 Business Law I: Legal Environment (3)
50:198:110 Introduction to Computing (3)
50:220:105 Microeconomic Principles (3)
50:220:106 Macroeconomic Principles (3)
50:350:101-102 English Composition I,II (3,3)
50:640:130 Calculus for Business, Economics, and Life Sciences (3)
50:960:283 Introduction to Statistics I (3)
50:960:284 Introduction to Statistics II (3)

Students admitted into the School of Business–Camden are expected to have a working knowledge of spreadsheets, databases, and word processing. These software packages will be utilized in the School of Business–Camden courses, but will not be taught in those courses. Students are assumed to have gained proficiency in these software packages prior to taking advanced business courses. For additional information, refer to the student handbook.

Although it is possible for a student to complete the major requirements through either daytime or evening attendance, the School of Business–Camden does not guarantee that every course will be offered every term. Students are encouraged to contact the Office for Student Affairs to ensure that the sequencing of their course selection is proper.

Transfer Students

Students who wish to transfer into the School of Business–Camden from another college or university should follow the normal application procedures found in this catalog. The Office of Undergraduate Admissions–Camden forwards all such applications to the director of academic advising so that a comprehensive academic plan can be developed.

Transfer students who have completed at least 55 degree credits and at least eight of the eleven course requirements listed above may be admitted directly into the School of Business. However, students may not be admitted into a specific business major until they have completed all eleven of the above courses. For more information, transferring students should contact the Office of Undergraduate Admissions at 856/225-6133.

Transferring students who have not completed at least 55 degree credits and at least eight of the eleven course requirements listed above may not be admitted directly into the School of Business–Camden until he or she has fulfilled the admission requirements described above. Transfer students are encouraged to enroll in the Camden College of Arts and Sciences or University College–Camden to complete prebusiness requirements. Admission to the Camden College of Arts and Sciences or University College–Camden does not guarantee admission into the School of Business–Camden.

Students who hold a baccalaureate degree (4 years) in any subject from a regionally accredited college or university are admitted directly into the School of Business–Camden. However, these students are required to fulfill any prebusiness requirements that were not transferred prior to registration in any 300 or above level School of Business–Camden course. Students requiring assistance in this area should contact the Office for Student Affairs. Also, for further information, see the School of Business–Camden Student Advising Handbook.

ACADEMIC POLICIES AND PROCEDURES

Student Responsibility to Keep Informed

This catalog provides a compendium of the rules governing undergraduate work at the university. Students are expected to keep their copy as a reference handbook and to familiarize themselves with the principal rules and regulations contained in it.

General Curricular Requirements

The student at the School of Business–Camden fulfills essentially the same general curricular requirements as other students at Rutgers–Camden. One-half of the student's education (60 credits) must be outside the area of business studies. These general curricular requirements provide the background necessary for an effective business studies program and help the student to learn to think clearly, communicate effectively, and become aware of the history, values, problems, and culture of our times. Almost all of the required accounting, finance, management, and marketing courses are to be taken during the student's junior and senior years.

School of Business–Camden students may not take the courses within the general curricular and major requirements on a Pass/No Credit basis.

Academic Advising

Students who have been admitted to the School of Business–Camden receive academic advising from the Office for Student Affairs, Armitage Hall, second floor. The staff also are available to advise students who are considering application to the school. Appointments may be scheduled in advance by calling 856/225-6043 (day or evening).

Academic Integrity

Students are expected to follow standards of academic integrity discussed elsewhere in the catalog and available in the dean's office.

Transfer Credit

Students are generally granted transfer credit for upper-level business courses taken in business programs accredited by the American Assembly of Collegiate Schools of Business,

if the student earned a grade of C or above. Business courses are upper level when they are at or above the 300 level in the Rutgers catalog. Students may be granted credit for upper-level courses taken at the upper level in non-AACSB accredited programs by approval of the Office for Student Affairs. Transfer credit is rarely granted for upper-level courses taken before the student completed 60 college credits.

Scholastic Standing

In general, the School of Business–Camden follows the same procedures and guidelines outlined in the General Information section of the catalog concerning scholastic standing. However, the grade-point averages for courses of action differ as follows:

1. If at the end of the first term in attendance the student's term or cumulative grade-point average is less than 2.0, a warning letter is sent.
2. If at the end of the term following the issuance of a warning letter a student's cumulative grade-point average is less than 2.0, the student is placed on academic probation.
3. If at the end of the term following placement on academic probation a student's cumulative grade-point average is less than 2.0, the student is dismissed from the school.

Students on probation must obtain a 2.5 term grade-point average or achieve a 2.0 cumulative grade-point average. Failure to meet this condition may result in academic dismissal.

Graduation Requirements

In addition to the graduation requirements of CCAS or University College–Camden, students who wish to graduate with a degree from the School of Business–Camden must attain a grade-point average of 2.0 or higher among the business core courses listed in level II (see Degree Requirements later in this chapter). In calculating this 2.0 average, the Office for Student Affairs will permit a student to repeat one of those courses in which the student received a grade of D or less. However, both the original and the repeated course grades become a part of the student's permanent academic record. Both grades are averaged when computed into the GPA by the Office for Student Affairs. Degree credit is allowed only once: when the course is passed the first time. A minimum of 120 credits is needed in order to graduate. For further information, contact the Office for Student Affairs and refer to the School of Business–Camden Student Advising Handbook.

Graduation with Honors

See the Degree Requirements chapter at the beginning of the catalog for information on honors distinction.

PROGRAMS OF STUDY

Major Programs

The undergraduate programs offered by the School of Business–Camden are designed to lead to the Bachelor of Science in accounting, finance, management, or marketing.

Bachelor of Science

010 Accounting
390 Finance
620 Management
630 Marketing

Program in Accounting

The program in accounting provides students with a comprehensive foundation in the theory of accounting, financial accounting and reporting, managerial and cost accounting, taxation, concepts of auditing, and business law. The program is built on a broad background in humanities, liberal arts, economics, and business administration.

The accounting program gives students the foundation and skills to pursue careers with public accounting firms, corporations, government, and nonprofit organizations. The program provides the background to sit for the Certified Public Accountant (C.P.A.), Certified Management Accountant (C.M.A.), and Certified Internal Auditor (C.I.A.) examinations. Graduates of this program also can pursue further graduate or professional education.

Program in Finance

The program in finance provides students with solid theoretical and practical knowledge of domestic and international finance in the areas of corporate finance, financial derivatives, investments, portfolio management, financial markets, and institutions. Graduates from the finance program are prepared to enter positions in corporations, financial institutions, brokerage houses, investment banks, and the government as corporate finance officers, bank officers, and investment and credit analysts. Graduates from the program also are well-prepared for postgraduate studies in all areas of business.

Program in Management

The work of a manager involves analyzing, planning, and coordinating the activities of a company. The management major provides training in analyzing problems, making decisions, delegating assignments, training and supervising employees, budgeting, and coordinating. The management major provides the skills needed to secure an entry level position, as well as the tools needed by top management to lead an organization.

The management area encompasses entrepreneurship, human resources management, management information systems, strategy, and international business. Management majors can pursue a general management specialization, strategy / Internet / entrepreneurship specialization, or an ecommerce technology specialization. The general management specialization provides students with broad exposure to several management subfields. The strategy / Internet / entrepreneurship management specialization provides students with preparation for a career as an entrepreneur or a corporate "intrapreneur" with a strategic orientation to themes of globalization and the Internet as well. The ecommerce technology specialization prepares students to develop skills necessary to help businesses compete and develop strategies for web-based interactions among companies, employees, customers, and suppliers.

Program in Marketing

The program in marketing provides students with a solid foundation in marketing principles and techniques. The program also equips students with the quantitative and qualitative skills necessary to investigate and analyze customer behavior, channel members, competitors, and external groups who may be affected by the marketing process.

The general marketing specialization qualifies students for positions in sales, advertising, retailing, etc., which provide a strong pathway to upper-management positions. The marketing research specialization prepares students for careers with marketing research suppliers (e.g., A.C. Nielson) and users of marketing research (including manufacturers of consumer and industrial products, service providers, and advertising agencies). The emarketing specialization allows students to gain an in-depth understanding of the marketing aspects of ecommerce as preparation for positions with both Internet firms or brick-and-mortar companies in any kind of marketing capacity. Graduates of the marketing program also are well-prepared to pursue graduate programs in business.

Refer to the most recent School of Business–Camden Student Advising Handbook for updated information on major programs in additional subject areas, as well as dual majors.

Minor Programs

Non-School of Business–Camden Majors

The objective of the minor at the School of Business–Camden is to supplement the student's major area of study with basic accounting, finance, management, or marketing knowledge. The accounting minor prepares students to understand the accounting function in business and to work with accountants. The finance minor prepares students to work with finance professionals. The management minor introduces students to basic management concepts. The marketing minor prepares students to work with marketing professionals.

Students may apply for admission to a business studies minor program after completion of 45 course credits.

Admission generally is based on a grade-point average of 2.6 or above in the eight courses that follow, and a 2.0 cumulative grade-point average in all other college courses. See the section on admission earlier in this chapter for information and policies concerning admission to the School of Business–Camden.

52:010:101 Introduction to Financial Accounting (3)
50:198:110 Introduction to Computing (3)
50:220:105 Microeconomic Principles (3)
50:350:101-102 English Composition I,II (3,3)
50:640:130 Calculus for Business, Economics, and Life Sciences (3)
50:960:283 Introduction to Statistics I (3)
50:960:284 Introduction to Statistics II (3)

Students should consult with the academic advising office for a current list of courses constituting minors.

School of Business–Camden Majors

Consult the most recent School of Business–Camden Student Advising Handbook for information on pursuing a School
of Business–Camden minor.

Dual Degrees

Students presently enrolled in the Camden College of Arts and Sciences, University College–Camden, or the School of Business–Camden may elect to receive two baccalaureate degrees (B.A. and B.S.). To be awarded two simultaneous degrees, a student must satisfy the requirements of two major fields and accumulate a minimum of 30 credits beyond that required for one baccalaureate degree. Students pursuing two degrees should plan their programs carefully with assistance from the Office for Student Affairs.

DEGREE REQUIREMENTS

Level I. General Curricular Requirements for the School of Business–Camden

The general curricular requirements for the School of Business–Camden are:

1. a. Six credits in 50:350:101-102 English Composition I,II unless exempted by placement examination. Students transferring into Rutgers who have completed the equivalent of 50:350:101-102 at another college or university must fulfill this composition requirement by taking 50:350:219 unless exempted by examination.
   b. Three credits in 50:350:238 World Masterpieces I.
   c. Three credits from the offerings of the foreign language departments.
   d. Three additional credits from the offerings of the foreign language departments or from the following offerings of the English department: 50:350:239, 300, 301, or 302.
2. Three credits from the offerings of art, music, or theater arts. (Courses in speech do not fulfill this requirement.)
3. Six credits from the offerings of the history, philosophy, and religion departments, specifically 50:730:201 Introduction to Logic, and one additional 3-credit elective.
4. Twelve credits from the offerings of the social science disciplines: economics, political science, psychology, sociology, anthropology, and urban studies. Students must take 50:220:105 and 106 and 50:830:235 and one additional 3-credit elective.
5. Three credits from the offerings of the natural science disciplines: astronomy, biological sciences, chemistry, geology, and physics.
6. a. Three credits in mathematics 50:640:130 or its equivalent.
   b. Nine additional credits in computer science 50:198:110 and statistics 50:960:283 and 284.
7. Six credits beyond the introductory level chosen from an approved single arts and sciences major. Students should see the advising handbook for additional information concerning approved majors.
8. Three credits from a degree program offered by Camden College of Arts and Sciences.
9. Additional free elective credits may be required depending on the specific business major.

Courses required for major programs may count toward the completion of both major and general curricular requirements, but no course may be counted toward fulfilling two different categories of the general curricular requirements.

Level II. Business Core Courses (33 credits)

The following business core courses are required for all business degrees. Business courses at the 300 level or above must be taken during the junior or senior year.

52:010:101 Introduction to Financial Accounting (3)
52:010:202 Management Accounting (3)
52:140:101 Business Law I: Legal Environment (3)
52:390:301 Principles of Finance (3)
52:620:303 Organizational Behavior (3)
52:620:305 Business Communication (3)
52:620:312 Operations Management (3)
52:620:321 Management Science I (3)
52:620:450 Business Policy (3)
52:623:334 Management Information Systems (3)
52:630:201 Principles of Marketing (3)

Level III. Major Fields

Accounting (27 credits)

52:010:305 Intermediate Accounting I (3)
52:010:306 Intermediate Accounting II (3)
52:010:383 Federal Tax Accounting I (3)
52:010:401 Advanced Accounting (3)
52:010:415 Concepts of Auditing (3)
52:010:451 Cost Accounting (3)

Students not sitting for the New Jersey Certified Public Accounting Examination must enroll in:

1. one additional business course numbered 300 or above in the area of management, marketing, finance, or accounting related to multinational issues (3) and
2. two additional business courses numbered 300 or above (6).

Students sitting for the New Jersey Certified Public Accounting Examination need to check with the Office for Student Affairs for enrollment information.

Finance (21 credits)

Four required courses:
52:390:315 Investments and Portfolio Management (3)
52:390:350 Multinational Corporate Finance (3)
52:390:415 Statistical Financial Modeling (3)
52:390:450 Applications of Financial Management (3)

Two elective courses, chosen from the following:
52:390:320 Global Financial Markets (3)
52:390:325 Financial Markets and Institutions (3)
52:390:330 Short-Term Financial Management (3)
52:390:340 Theory of Financial Management (3)
52:390:350 Multinational Corporate Finance (3)
52:390:415 Statistical Financial Modeling (3)
52:390:425 Fixed Income Securities (3)
52:390:435 Derivative Securities (3)
52:390:487 Independent Study in Finance (BA 1-3) *
52:390:491-492 Special Topics in Finance (3,3)
52:390:497 Finance Internship (3) *
One elective course that is an approved business course at or above the 300 level or 3 credits in an approved CCAS course in economics, mathematics, or statistics

Management (21 credits)

General Management Specialization

52:620:365 Human Resources Management (3) or 52:620:367 Labor-Management Relations (3)
52:620:369 The Management of Multinational Business (3)
two additional management (620) electives (6)
one additional ecommerce technology course (623) elective (3)
two additional business courses at or above the 300 level (6)

Strategy / Internet / Entrepreneurship Specialization

Four required courses:
52:620:365 Human Resources Management (3)
52:620:369 The Management of Multinational Business (3)
52:620:483 Entrepreneurship: New Venture Creation and the Internet (3)
52:620:488 Strategic Management of Technology and Ecommerce (3)

Two elective courses chosen from the following:
52:620:484 Intrapreneurship (3)
52:620:485 Entrepreneurship: Implementation and Operation (3)
52:620:486 Entrepreneurship: Application (3)
52:620:489 Corporate Reorganization and Turnaround Strategy (3)
52:620:490 Mergers and Acquisitions (3)
52:620:493 Supply Chain Strategy (3)
one elective school 52 course, preferably in the ecommerce area at or above the 300 level

Ecommerce Technology Specialization

52:623:335 Systems Analysis and Design (3)
52:623:343 Managing Emerging Information Technologies (3)
52:623:444 Managing Ecommerce Projects (3)
52:623:445 Global Issues in Ecommerce Technology (3)
one ecommerce technology elective (3)
two approved electives (3)

Marketing (21 credits)

Four required courses for all marketing specializations:
52:630:371 International Marketing (3)
52:630:374 Consumer Analysis (3)
52:630:385 Marketing Research (3)
52:630:403 Strategic Marketing Planning (3)

General Marketing Specialization

Three elective courses chosen from the following:
50:220:322 Econometrics (3)
52:630:353 Integrated Marketing Communications (3)
52:630:355 Persuasion, Sales, and Negotiation (3)
52:630:365 Pricing Strategies (3)
52:630:368 Retailing and Electronic Commerce (3)
52:630:370 Business-to-Business Marketing (3)
52:630:491-492 Special Topics in Marketing (3,3)
52:630:495 Honors Thesis in Marketing (3,3)
52:630:497 Marketing Internship (BA)
50:830:385 Psychological Tests and Measurements (3)
50:920:301 Methods and Techniques of Social Research (3)
50:960:476 Introduction to Sampling (3)
50:960:490 Experimental Design and Analysis (3)

Marketing Research Specialization

Three elective courses chosen from the following:
50:220:322 Econometrics (3)
52:630:491 Special Topics in Marketing—Database Marketing (3)
52:630:495 Honors Thesis in Marketing (3,3)
52:630:497 Marketing Internship (3)
50:830:385 Psychological Tests and Measurements (3)
50:920:301 Methods and Techniques of Social Research (3)
50:960:476 Introduction to Sampling (3)
50:960:490 Experimental Design and Analysis (3)

* No more than 6 credits earned in 52:390:487 Independent Study in Finance and 52:390:497 Finance Internship may be applied toward the degree program in finance.

Emarketing Specialization

Three elective courses chosen from the following:

52:620:488 Strategic Management of Technology and Ecommerce (3)
52:623:343 Managing Emerging Information Technologies (3)
52:623:444 Managing Ecommerce Projects (3)
52:623:445 Global Issues in Ecommerce Technology (3)
52:623:448 Fundamentals of Telecommunication and Internet Technologies (3)
52:630:353 Integrated Marketing Communications (3)
52:630:368 Retailing and Electronic Commerce (3)
52:630:491 Special Topics in Marketing—Internet Marketing (3)
52:630:495 Honors Thesis in Marketing (3,3)
52:630:497 Marketing Internship (3)

INTERNSHIP PROGRAM

The internship program has three aims:

1. to provide School of Business–Camden students with an opportunity to acquire a quality practical educational experience in their major fields of study without interrupting their academic education
2. to provide businesses with the opportunity to develop talented students
3. to increase interaction, cooperation, and exchange of ideas between businesses and the School of Business–Camden

Eligibility and Requirements

Recommended junior and senior School of Business–Camden students must have a cumulative grade-point average of at least 3.0. At the conclusion of the internship, the student is required to prepare a report on the internship experience. Based on this report and the sponsor's evaluation, a grade will be given and 3 academic credits will be granted to the student. No more than 3 academic credits may be earned as an intern.

Internship Period

The internship period is governed by the needs of the sponsoring organization and the educational schedule of the student. It will be on a part-time basis for one or two terms during the school year. Generally, interns work between 15 and 25 hours a week. An intern must work at least 100 hours during the internship period to receive credit. Internships also may be arranged during the summer.

Any questions concerning the internship program should be addressed to Paul Pressley, director of external affairs.

HONORS AND AWARDS

Dean's List. The dean's list recognizes current academic achievement. The list is published at the end of each term for full-time students and in August for part-time students. Full-time students are eligible if they have completed 12 or more credits for numerical grade credit with a term grade-point average of 3.5 or better. Part-time students are eligible if they have completed 12 or more credits during the preceding academic year for numerical grade credit with a grade-point average of 3.5 or better.

Honors Thesis Option. School of Business–Camden students with a grade-point average of 3.3 or above may be eligible to undertake an honors thesis. This involves in-depth study in the student's major area under the supervision of a faculty thesis adviser. This project usually is carried out during the student's two senior terms. The student who completes an acceptable honors thesis receives 6 course credits and graduates with Thesis Distinction.

The thesis must involve the comprehension of academic literature, data collection or a systematic theoretical analysis, and the writing of an academic research paper. The thesis must be approved by both the student's thesis adviser and a second School of Business faculty member. In addition, all honors thesis students must give a presentation on the results of their projects to the faculty and students.

Beta Alpha Psi. Accounting major honor society.

Beta Gamma Sigma. Open by invitation to School of Business–Camden students based on academic achievement.

Executive Advisory Council Scholarships. Several scholarships typically are awarded from donations by business organizations that belong to the Executive Advisory Council to the School of Business–Camden.

STUDENT ORGANIZATIONS

The School of Business–Camden Student Congress (SBCSC) is the student-elected governing body. Its function is to supervise the operations of all the student organizations within the School of Business–Camden and to act as the communications bridge between the students and the administration. Established organizations in the School of Business–Camden include the Marketing Association, Management Society, Finance Society, Accounting Society, National Association of Black Accountants, Beta Alpha Psi, and Beta Gamma Sigma. These organizations provide students with insight into various areas of interest pertaining to each discipline.

Courses

COURSE NOTATION INFORMATION

Changes in Course Numbers and/or Titles

Because of the consolidation of programs and course offerings that has taken place at Rutgers in Camden, numerous courses have changed in number and/or title, but not in content. In most cases, if a course number has changed recently, the previous course number is given immediately below the title of the course with the following notation: (Formerly 00:000:000).

Nevertheless, it is the student's responsibility to read course descriptions carefully and, when in doubt, to check with his or her adviser or the appropriate department to avoid registering for a course that the student may have already taken. Credit is not given twice for the same course, despite a change in number and/or title.

Explanation of Three-Part Course Numbers

The number preceding each course title is divided into three parts. The first two digits are the administrative code, the next three digits are the subject code, and the final three digits are the course code.

Administrative Codes

50 Camden College of Arts and Sciences (daytime and evening courses)
52 School of Business–Camden (daytime and evening courses)

Subject Codes

A subject code indicates the subject matter of the course. (This list does not constitute a list of majors.)

010 Accounting
140 Business Law
390 Finance
620 Management
623 Ecommerce and Information Technology
630 Marketing

Course Codes

Courses coded from 100 to 299 are introductory and intermediate undergraduate courses; codes from 300 to 499 indicate advanced undergraduate courses. Courses coded from 500 to 799 are graduate courses and are described in the graduate catalogs of the university.

Two course codes separated by a comma indicate that each term course may be taken independently of the other (example: 50:160:453,454). Two course codes separated by a hyphen indicate that satisfactory completion of the first term course is a prerequisite to the second term (example: 50:750:203-204); the first term may be taken for credit without the second, except if a statement is added to indicate that both term courses must be completed in order to receive credit (example: 50:160:335-336).

Other Course Notations

If the course title is followed by an (R), e.g., General Chemistry (R), the course may be repeated under the course repetition procedure described in the Academic Policies and Procedures chapter.

Credits awarded for the successful completion of each course are indicated in parentheses following the course title. The notation (BA) indicates that the number of credits is determined by arrangement with the department offering the course.

The university reserves the right to augment, modify, or cancel the courses listed in the catalog, or to change degree requirements. Except for certain types of advanced courses, a course will automatically be withdrawn if fewer than ten students register for it.

ACCOUNTING 010

Courses

52:010:101. INTRODUCTION TO FINANCIAL ACCOUNTING (R) (3)
An introduction to accounting theory and practice and its function as the communications medium of the modern business information system.

52:010:202. MANAGEMENT ACCOUNTING (R) (3)
Prerequisite: 52:010:101.
The management uses of accounting data for planning, control, and decision making emphasized in the study of cost accounting, budgeting, and internal reporting procedures.

52:010:305. INTERMEDIATE ACCOUNTING I (3)
Prerequisites: 52:010:101,202; 52:140:101; 50:198:110; 50:220:105,106.
In-depth development of both the basic theory underlying financial accounting and the accounting process, with an emphasis on their application to items on the financial statements. Covers the various reporting and disclosure requirements under generally accepted accounting principles.

52:010:306. INTERMEDIATE ACCOUNTING II (3)
Prerequisite: 52:010:305.
Continuation of 52:010:305.

52:010:383. FEDERAL TAX ACCOUNTING I (3)
Prerequisite: 52:010:305.
An analysis of the federal tax laws as they apply to the income of partnerships, decedents, estates and trusts, and corporations. Focus on corporate distributions, especially taxed corporations, capital changes, liquidations, and corporate reorganizations.

52:010:384. FEDERAL TAX ACCOUNTING II (3)
Prerequisite: 52:010:383.
An analysis of the federal tax laws as they apply to the income of individuals. Specifically, analysis of gross income, exclusions, business and nonbusiness deductions, gains and losses, and capital gain and loss treatment.

52:010:401. ADVANCED ACCOUNTING (3)
Prerequisites: 52:010:305,306.
Emphasis on the purchase and pooling methods of accounting for mergers and acquisitions, the cost and equity methods of accounting for an investment subsequent to its acquisition, and consolidations that result from intercorporate stock exchanges. Accounting for foreign operations and for state and municipal government entities.

52:010:415. Concepts of Auditing (3)
Prerequisites: 52:010:305,306.
Objectives and concepts of auditing including audit planning, the internal control structure, audit evidence, audit sampling, materiality and audit risk, and reporting on audited financial statements. Overviews of audit methodology, international auditing, and the Code of Professional Conduct.

52:010:441. Accounting Theory (3)
Prerequisites: 52:010:101; 52:140:101; 50:198:110; 50:220:105-106.
Contemporary theories explaining accounting and auditing phenomena. Alternative hypotheses and views to explain existing and emerging issues and observations in areas relating to the markets for accounting and auditing services. Accounting regulations and rule setting and the accounting profession.

52:010:451. Cost Accounting (3)
Prerequisites: 52:010:202; 52:140:101; 50:198:110; 50:220:105,106.
Identifying, measuring, accumulating, analyzing, preparing, interpreting, and communicating financial information used by management in fulfilling organizational goals. Standards of Ethical Conduct for Management Accountants.

52:010:461. Government and Not-for-Profit Accounting (3)
Government and nonprofit accounting as it relates to government, colleges and universities, and voluntary health and welfare programs.

52:010:472. Financial Statement Analysis (3)
Prerequisites: 52:010:305,306.
A study of the various factors that affect the critical examination and interpretation of financial statements from the viewpoint of various groups using such data. Thorough consideration of accounting problems, analytical methods, and item content of formal statements, with attention to statements of cost analysis and other specialized control reports.

52:010:487. Independent Study in Accounting (BA 1-3)
Prerequisite: Permission of instructor.
Individual study under the supervision of a member of the accounting faculty in an area of accounting study, on a project or on a paper of the sort not usually undertaken in a regular course, in order to deepen and broaden the student's professional horizon and enrich his or her educational experience.

52:010:491,492. Special Topics in Accounting (3,3)
Prerequisites: 52:010:305,306.
Designed to integrate course materials, introduce newer philosophies and techniques in accounting, and apply them to selected problems. Extensive reading and research reports required. Topics vary from year to year.

52:010:495. Honors Thesis in Accounting (3)
Prerequisite: Permission of instructor.
An individual research and reading project.

52:010:497. Accounting Internship (3)
Prerequisites: Cumulative grade-point average of 3.0; permission of internship director.
A structured practical program conducted by a business in cooperation with the School of Business–Camden.

BUSINESS LAW 140

Courses

52:140:101. Business Law I: Legal Environment (3)
Focus on legal and regulatory environment of business. Fundamental ideas on the law and its relationship to business; government regulation; and such topics as the law of the employment relationship, occupational safety and health, financial regulation, antitrust, consumer protection, product liability, and the environment.

52:140:102. Business Law II: Uniform Commercial Code (3)
Prerequisite: 52:140:101.
Preparation for the New Jersey C.P.A. examination. Emphasis on aspects of the Uniform Commercial Code. Topics include the formation, operation, and discharge of contracts; agency; commercial paper; debtor-creditor relationships including bankruptcy; property; partnership and corporations with respect to liability, the power of their officers, and the rights of stockholders; negotiable instruments and bailments.

FINANCE 390

Courses

52:390:201. Small Business Finance (3)
Prerequisite: 52:010:101.
Financial problems and the tools to solve them presented in a manner most relevant to small businesses. Topics include understanding financial statements, cash planning, profitability and risk, time value of money, project selection, funding of growth, limiting tax exposure, and financial dealing with foreign suppliers and customers.

52:390:301. Principles of Finance (3)
Prerequisites: 52:010:101; 50:220:105,106; 50:960:283.
Forms of business organization, the federal income tax system, financial markets and institutions, time value of money, bonds and stocks valuation, calculating the cost of capital, capital budgeting, flow of funds and ratio analysis, operating and financial leverage, working capital management.

52:390:315. Investments and Portfolio Management (3)
Prerequisites: 52:390:301, 50:960:284.
Organization and functioning of securities markets, efficient capital markets, modern portfolio management, asset pricing models, security valuation principles and practices, analysis and management of bonds and common stocks, derivative securities, evaluation of portfolio performance.

52:390:320. Global Financial Markets (3)
Prerequisites: 52:390:301, 50:960:284.
International monetary system, measurement of international trade and investment, global banking, eurocurrency markets, global securities markets, foreign exchange markets, emerging capital markets, global portfolio management.

52:390:325. Financial Markets and Institutions (3)
Prerequisite: 52:390:301.
Regulatory structure of the banking industry; performance analysis and strategic planning. Asset-liability gap management: hedging, swaps, futures. Asset management: asset selection and credit analysis. Liability-capital management: deposit pricing and services and dividend policy. International banking also addressed.

52:390:330. Short-Term Financial Management (3)
Prerequisite: 52:390:301.
Efficient management of the firm's short-term assets and liabilities. Topics include cash management and banking relations, short-term investments, accounts receivable management, accounts payable management, short-term borrowing, and electronic data interchange. Background material on commercial banking and the Federal Reserve system also covered.

52:390:340. Theory of Financial Management (3)
Prerequisite: 52:390:301.
Advanced issues in capital budgeting—replacement policy, optimal investment horizon, and budgeting under taxes and inflation; financial leverage, firm valuation, and the cost of capital; earnings distribution policy; corporate acquisitions.

52:390:350. MULTINATIONAL CORPORATE FINANCE (3)
Prerequisites: 52:390:301, 50:960:284.
Financial management for the multinational firm—measuring and managing foreign exchange exposure, current asset management, multinational capital budgeting, financing of international projects, financing of trade, political risk management, taxation and international transfer pricing.

52:390:415. STATISTICAL FINANCIAL MODELING (3)
Prerequisite: 52:390:315.
Model building and analysis of financial data using statistical techniques and computer software such as SAS or SPSS. Topics include financial ratios and bond ratings, prediction of financial distress and acquisitions, evaluation of business loans, estimation of portfolio inputs, evaluation of portfolio performance, sales and earnings forecasting.

52:390:425. FIXED INCOME SECURITIES (3)
Prerequisites: 52:390:301, 315.
Bond-price, yield, and total-return determination; interest rate risk; duration and convexity; the institutional characteristics of primitive and derivative securities traded in the domestic and international fixed-income markets; the term structure of interest rates; mortgages and mortgage pass-through securities; forwards, futures, options, swaps of fixed-income securities; immunization, dedication, indexing, and hedging with derivative securities.

52:390:435. DERIVATIVE SECURITIES (3)
Prerequisites: 52:390:301, 315.
Functioning of futures and options markets; futures price structure, hedging, risk and return, futures contracts on stock indices, interest rates, and currency; options price structure and arbitrage, valuation, and trading strategies; options contracts on stock indices, interest rate, and currency; swaps.

52:390:450. APPLICATIONS OF FINANCIAL MANAGEMENT (3)
Prerequisite: 52:390:315.
Design to integrate risk and return relationships, valuation models, cost of capital, capital structure, capital budgeting, dividend policy, and working capital management into practice of financial management. Computer applications and case studies emphasized.

52:390:487. INDEPENDENT STUDY IN FINANCE (BA 1-3)
Prerequisite: Permission of instructor.
Individual study under the supervision of finance faculty, usually on a specified project or paper, designed to enrich the educational experience.

52:390:491,492. SPECIAL TOPICS IN FINANCE (3,3)
Prerequisite: Permission of instructor.
Designed to integrate course materials, introduce new philosophies, theories, and techniques in finance, and apply them to selected problems. Extensive reading and research reports required. Topics vary from year to year.

52:390:495. HONORS THESIS IN FINANCE (3,3)
Prerequisite: Permission of instructor.
An individual research or reading project.

52:390:497. FINANCE INTERNSHIP (3)
Prerequisites: Cumulative grade-point average of 3.0; permission of internship director.
A structured practical program conducted by a business in cooperation with the School of Business–Camden.

MANAGEMENT 620

Courses

52:620:301. SOCIAL RESPONSIBILITY OF BUSINESS (3)
Economic, legal, ethical, and social issues that arise out of a business organization's relationships with such internal and external stakeholders as the employees, clients, customers, the government, and the public at large.

52:620:303. ORGANIZATIONAL BEHAVIOR (3)
Prerequisite: 50:830:235.
An examination of the human dynamics in organizations, focusing on individuals and small groups in organizational settings. Concentrates on communications, leadership, control systems, organization structures, and the thinking of leading organization theorists.

52:620:305. BUSINESS COMMUNICATION (3)
Prerequisite: 50:350:101.
The study of spoken and written communication in business. Planning, composing, and carrying out communications with employees, management, stockholders, customers, the general public, and government. Roughly half of the course involves written communication and half involves spoken communication.

52:620:312. OPERATIONS MANAGEMENT (3)
Prerequisites: 52:620:321; 50:960:284.
A study of the methods used to solve problems typically confronted in the management of production facilities and office services. Topics include the location and layout of facilities and operations, methods analysis and work measurement, materials handling, production control, inventory control, quality control, office automation, budgeting, and decision making.

52:620:320. TOTAL QUALITY MANAGEMENT (3)
Prerequisites: 52:620:312, 321.
Key principles of TQM including information and analysis, strategic quality planning, process quality management, operational results, and customer satisfaction. Focus on increasing productivity through continuous improvement in quality.

52:620:321. MANAGEMENT SCIENCE I (3)
Prerequisites: 50:198:110, 50:640:130, 50:960:283.
Applications of quantitative models drawn from operations research and basic mathematics as applied to simple and multiple criteria decision problems in organizations.

52:620:322. MANAGEMENT SCIENCE II (3)
(Formerly Quantitative Methods in Administration II)
Prerequisite: 52:620:321.
Continuation of 52:620:321.

52:620:350. PUBLIC SECTOR LABOR NEGOTIATIONS (3)
Prerequisite: 52:620:303.
Employer-employee relations in federal, state, and local government and public health care institutions, mass transit, and education. Topics include representational issues, contract negotiation, contract administration, and varied methods of dispute settlement including arbitration, mediation, fact-finding, and others.

52:620:365. HUMAN RESOURCES MANAGEMENT (3)
Prerequisite: 52:620:303.
Emphasizes human resources management as a major function within organizations with special emphasis on business problems and strategic decision making required of the human resources manager. Topics studied include planning, recruitment, selection, training and employee development, compensation, union-management relations, and the integrative function performed by human resources management.

52:620:367. Labor-Management Relations (3)
Prerequisite: 52:620:303.
A study of the relationships between management and employee organizations in the private and public sectors. Topics include the historical development of labor-management relations, the surrounding legislative framework, and the processes of collective negotiation and contract administration, including grievance handling, arbitration, and other conciliation processes.

52:620:369. The Management of Multinational Business (3)
Prerequisite: 52:620:303.
The theoretical and practical aspects of a firm operating in an international environment, problems and risks that may be encountered, and various bases for profitable operations.

52:620:450. Business Policy (3)
Prerequisites: 96 credits and completion of business core.
An integrative course in general management oriented to an overall view of policy formulation from the perspective of senior managers. Case studies used as supplementary readings. Students expected to analyze situations, isolate major problems, and recommend solutions.

52:620:467. Women and Men in Management (3)
Prerequisite: 52:620:303.
Investigation of the research and corporate practice pertaining to the movement of women and men into management positions. Areas covered include the expansion of traditional gender roles, resistance to this change, occupational choices and gender, de facto discrimination, sex role stereotyping, organizational response, and current labor force patterns.

52:620:483. Entrepreneurship: New Venture Creation and the Internet (3)
(Formerly Small Business Management)
Prerequisites: 52:010:101, 52:620:303.
Concentrates on how new businesses begin. The main objectives are: (1) understanding entrepreneurs, (2) seeking and evaluating opportunities for new ventures, and (3) marshaling resources to convert these opportunities into businesses. Students interview an entrepreneur and write a business plan for a new venture they have chosen. Also may examine new opportunities created by the Internet.

52:620:484. Intrapreneurship (3)
Corequisite: 52:620:483.
Intrapreneurship is the creation and launching of a new business within an established firm. To survive in today's competitive world, innovation is essential. Yet established firms often have considerable difficulty moving new products out quickly enough, responding to new market opportunities, or taking advantage of new technologies. Examines the strategic issues of the right focus for innovation, the appropriate modes of development, the timing of technological or market transitions, and the building of new core businesses. Covers the human and organizational aspects of the entrepreneurial process as well as the development of innovative products for new markets. Develops entrepreneurial skills in large, established companies.

52:620:485. Entrepreneurship: Implementation and Operation (3)
Corequisite: 52:620:483.
Examines the challenges of building and managing a new venture from inception to growth and expansion. Through case studies of actual growing businesses, readings, cases, and guest speakers, students apply management skills to the problems and opportunities facing companies in different stages of development. Included are such issues as working capital, delegation without abdication, family businesses, boards of directors in private companies, strategic alliances with larger companies, and marketing a new product in a new market. Develops entrepreneurial skills in small companies.

52:620:486. Entrepreneurship: Application (3)
Prerequisite: 52:620:483.
Practical course in which students work independently, with guidance from the instructor, on consulting or projects in an entrepreneurial setting. The course has an in-class component of instruction.

52:620:487. Independent Study in Management (BA)
Prerequisite: Permission of instructor.
Individual study under the supervision of the management faculty, usually on a specified project or paper, to deepen and broaden the student's professional horizon and enrich the educational experience.

52:620:488. Strategic Management of Technology and Ecommerce (3)
Explores the challenges faced by a general manager in the creation and exploitation of new technologies and innovations. The first module of the course deals with technology evolution, forecasting, and assessment of new technologies; creation of technological competencies; organization of the innovation process; and strategies for exploiting innovations. The second module analyzes the strategic and organizational implications of ecommerce and emerging innovations.

52:620:489. Corporate Reorganization and Turnaround Strategy (3)
Examines the financial and accounting correlates of corporate insolvency; develops strategies for turning around a firm, including accounting, financial, legal, management, and marketing policies; and illustrates the concepts through several case studies.

52:620:490. Mergers and Acquisitions (3)
Explores the incentives and processes for using various modes of corporate development to achieve corporate strategic objectives; use of mergers, acquisitions, and alliances for corporate growth and capability building; analytical techniques used in corporate development decisions as well as process issues, such as negotiation strategies, competitive bidding, and postmerger integration; problems faced in managing acquisitions; and alternative modes of market entry, such as joint ventures and internal development.

52:620:491,492. Special Topics in Management (3,3)
Designed to integrate course materials, introduce newer philosophies and techniques in management, and apply them to selected problems. Extensive readings and research reports required. Topics vary from term to term.

52:620:493. Supply Chain Strategy (3)
Prerequisite: 52:620:312.
Examines how to improve supply chain interactions in various functional areas (such as engineering, information systems, logistics, operations, purchasing, and sales) across a range of industries; implementation of integrated supply chain strategy.

52:620:495. Honors Thesis in Management (3,3)
Prerequisite: Permission of instructor.
Individual research or reading project.

52:620:497. Management Internship (3)
Prerequisites: Cumulative grade-point average of 3.0; permission of internship director.
A structured practical program conducted by a business in cooperation with the School of Business–Camden.

ECOMMERCE AND INFORMATION TECHNOLOGY 623

Courses

52:623:334. Management Information Systems (3)
Prerequisite: 50:198:110.
The design and implementation of information systems in organizations and on the web. Topics include ecommerce, ERP, DSS, telecommunications, group support systems, and wireless computing. Organizational implications, ethics and privacy issues of information technology, and related computer applications.

52:623:335. Systems Analysis and Design (3)
Prerequisite: 52:623:334.
Analysis and design of information systems in organizations. Course includes the traditional life cycle approach and rapid application development used for designing ecommerce sites. Emphasis on determining information requirements for development of ecommerce for both traditional and web-based businesses.

52:623:336. Decision Support Systems (3)
Prerequisite: 52:623:334.
MIS course analyzes the problem-solving style of decision makers in business. Emphasizes analyzing and designing computer-based interactive decision support systems (DSS) that aid decision makers in solving semistructured problems.

52:623:343. Managing Emerging Information Technologies (3)
Prerequisite: 52:623:334.
Information technologies are often introduced into organizations without proper managerial support. This course examines many emerging information technologies from web technologies to ecommerce, and demonstrates how to introduce successfully these new technologies into organizations.

52:623:345. End User Computing (3)
Prerequisite: 52:623:334.
Explores software and application issues, hardware compatibility, telecommunications, data and database issues; business controls, financial, personnel, political, cultural, and policy issues surrounding the organizational use of computer and computer applications. Use of decision support, database, graphical, and other management productivity software.

52:623:400. Management of Information Technology (3)
Prerequisite: 52:623:334.
Processes that underlie the management of information technology and the role of information technology to support the mission of the organization.

52:623:444. Managing Ecommerce Projects (3)
Prerequisite: 52:623:335 or permission of instructor.
Project management techniques introduced to help managers plan and implement an ecommerce site. Students learn the important design features for successful ecommerce sites. Emphasis on business-to-consumer ecommerce. Intended for students who have declared a specialty in ecommerce.

52:623:445. Global Issues in Ecommerce Technology (3)
Prerequisite: 52:623:334.
This international course in the ecommerce program serves to integrate all the strategic aspects of ecommerce. Business-to-consumer and business-to-business ecommerce explored through cases involving organizations whose ecommerce sites are evolving or those that have succeeded or failed.

52:623:446. DSS and Data Mining (3)
Prerequisite: 52:623:334.
Decision support systems (DSS) help managers make decisions in semistructured environments. Explores the use of expert systems, knowledge data discovery, and the process of discovering useful information from data in organizations.

52:623:447. Database Management (3)
Prerequisite: 52:623:334.
Examines the fundamentals of database management, relational database theory, and practice in the business world. Concepts include data integrity, queries, and data warehousing. The value of these concepts in traditional business and ecommerce explored.

52:623:448. Fundamentals of Telecommunication and Internet Technologies (3)
Prerequisite: 52:623:334.
Telecommunications technology enables organizations to reduce transaction and coordination costs, promoting ecommerce and e-business. Students learn about setting up networks, intranets, and extranets. Issues concerning network reliability, security, bandwidth, and connectivity addressed.

52:623:487. Independent Study in Ecommerce (3)
Prerequisite: 52:623:334.
Individual study under the supervision of the ecommerce and information technology faculty, usually on a specified project or paper, to deepen and broaden the student's professional horizon and enrich the educational experience.

52:623:490. Special Topics in Ecommerce (3)
Prerequisite: 52:623:334.
Designed to integrate course materials, introduce newer philosophies and techniques in ecommerce, and apply them to selected problems. Extensive readings and research reports required. Topics vary from term to term. Taught by an ecommerce and information technology faculty member.

52:623:491. Special Topics in MIS (3)
Prerequisite: 52:623:334.
Designed to integrate course materials, introduce newer philosophies and techniques in MIS, and apply them to selected problems. Extensive readings and research reports required. Topics vary from term to term. Taught by an ecommerce and information technology faculty member.

52:623:497. Management Information Systems Internship (3)
Prerequisites: Cumulative grade-point average of 3.0; permission of internship director.
A structured practical program conducted by a business in cooperation with the School of Business–Camden.

MARKETING 630

Courses

52:630:201. Principles of Marketing (3)
Prerequisites: 52:010:101; 50:198:110; 50:220:105,106; 50:350:101,102; 50:960:283.
An introduction to the activities involving the exchange of goods, services, and ideas for the satisfaction of human wants. Marketing examined as it relates to the other functions of the organization, to consumers, and to society.

52:630:353. Integrated Marketing Communications (3)
Prerequisite: 52:630:201.
Reviews theoretical basis of persuasion. Within the context of integrated marketing communications, emphasis on issues associated with planning and executing effective integrated advertising, sales promotion, publicity, and personal selling programs. Addresses marketing communication tools, including Internet advertising, ecommerce web sites, and traditional marketing communications media.

52:630:355. Persuasion, Sales, and Negotiation (3)
Prerequisite: 52:630:201.
Review of human motivation and persuasion and their application to sales and negotiations.

52:630:365. Pricing Strategies (3)
Prerequisite: 52:630:201.
Costs, competition, and the customer's needs in price-setting considerations. Integration of these and other factors for developing profit-maximizing pricing strategies. Particular attention given to the determinants, measurement, and prediction of customer price sensitivity.

52:630:368. Retailing and Electronic Commerce (3)
Prerequisites: 52:010:202, 52:630:201.
Techniques for the management of both traditional retailing and electronic commerce. Topics include development of retail format, site selection, personnel management, merchandise planning, and customer relationships. Emphasis on the use of new information technologies, such as geodemographic mapping and retail information systems. Includes web-based exercises and assignments requiring field observation of retailing strategies.

52:630:370. Business-to-Business Marketing (3)
Prerequisite: 52:630:201.
Topics include role of just-in-time systems, international aspects, sales strategies, and the management of technology.

52:630:371. International Marketing (3)
Prerequisite: 52:630:201.
The identification of similarities and differences in marketing systems across nations. Emphasis on cultural, legal, political, and ethical issues affecting marketing strategies. A critical analysis of adaptation and standardization decisions regarding the marketing mix, especially as they are affected by level of economic development.

52:630:374. Consumer Analysis (3)
Prerequisite: 52:630:201.
Study of relevant psychological, sociological, and anthropological variables that shape intentions, activities, and motivations of those in the exchange process. Attention to both the individual and social influence determinants of buying and consuming behaviors. Individual, family, and group buying decision processes examined.

52:630:385. Marketing Research (3)
Prerequisites: 52:630:201; 50:960:284.
Study of how organizations collect and use information about consumers, competitors, and the environment. Topics include information system needs for marketing decision making; exploratory, descriptive, and experimental research designs; data collection methods; and analysis techniques for describing research results. Special emphasis given to the effects of new technology on understanding consumer behavior. A major research project required.

52:630:403. Strategic Marketing Planning (3)
Prerequisites: 50:010:202; 52:630:201.
A top management perspective on the overall marketing task, including planning, organizing, controlling, and integrating all the activities of the marketing department. Integration of marketing with other operations of the business unit. Major strategic problems and current trends identified and analyzed.

52:630:487. Independent Study in Marketing (BA)
Prerequisites: 52:630:201, accepted business major or minor, and permission of both the instructor and the director of advising.
Individual study under the supervision of the marketing faculty, usually on a specified project or paper, to deepen and broaden the student's professional horizon and enrich the educational experience.

52:630:491,492. Special Topics in Marketing (3,3)
Prerequisites: 52:630:201, permission of director of advising. Pre- or corequisite: 52:630:385.
Designed to integrate course materials, introduce newer philosophies and techniques in marketing, and apply them to selected problems. Extensive readings and research reports required. Topics vary from term to term.

52:630:495. Honors Thesis in Marketing (3,3)
Prerequisite: Permission of instructor.
Individual research or reading project.

52:630:497. Marketing Internship (BA)
Prerequisites: Cumulative grade-point average of 3.0; permission of internship director.
Completion of an approved internship in a marketing organization. Arrangements for the internship must be agreed upon by the sponsoring organization before the beginning of the term. Students should consult the director of advising for detailed instructions before registering for this course.

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Admission

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The Camden College of Arts and Sciences, University College–Camden, and the School of Business–Camden seek well-prepared and strongly motivated men and women whose previous educational and/or work experience indicates a capacity to profit from the colleges' many and varied opportunities. All qualified applicants receive consideration without regard to race, religion, color, sex, age, handicap, sexual orientation, marital status, or national origin.

HOW TO APPLY

First-Year and Transfer Students

To apply for admission, candidates attending a New Jersey high school or community college should obtain an undergraduate application packet from any secondary school or county college in the state. Prospective candidates from other states should write to Rutgers, The State University of New Jersey, Office of University Undergraduate Admissions, 65 Davidson Road, Piscataway, NJ 08854-8097. Students also may download an application form from the undergraduate admissions web site (http://www.rutgers.edu/students/ug) or apply online. A nonrefundable application fee is required. Rutgers University participates in the College Board Fee Waiver Program for applicants claiming economic hardship. Students claiming economic hardship should ask their counselor for the College Board Fee Waiver Form and attach it to the application materials. It is the candidate's responsibility to submit the supporting credentials specified in the credentials section below.

The primary emphasis in admission is on academic promise. All the materials the student submits—application, transcripts, test results—are reviewed. Admissions committees look for evidence of promise in the student's grades, trend in grades, rank in class, strength of program (such as number of academic subjects, honors courses, advanced placement), and test scores.

Candidates for admission by transfer from another college or from another division of Rutgers must show evidence of good academic performance. Students who have been dismissed from another college for academic reasons are not considered for admission until at least one year has elapsed since the date of dismissal.

Students Seeking Readmission

Students seeking to return to college, having withdrawn before completing a full term or not having been registered for a term or more, must apply for readmission. Applications may be obtained from and filed with the college they last attended.

Students who have been separated from either Camden College of Arts and Sciences, University College–Camden, or the School of Business–Camden for academic or disciplinary reasons may not reenroll unless permitted by the appropriate Committee on Scholastic Standing or by the appropriate dean of students. For further information, see Scholastic Standing in the Academic Policies and Procedures chapter.

Students who have withdrawn or been dismissed from Rutgers–Camden and who have been readmitted may reenter the college under the terms of the catalog in effect at the time of their original admission, if their reentry occurs no more than thirty months after the date of their withdrawal. Students absent for longer periods are subject to the terms of the catalog in effect at the time of their reentry.

WHEN TO APPLY

Applicants should refer to the undergraduate application packet for specific information about fall and spring priority application dates. It is in the applicant's best interest to file the application as early in the school year as possible. This allows the university adequate time to process the application and to give maximum consideration to all credentials. The undergraduate colleges continue to consider applications as long as space is available.

The Camden College of Arts and Sciences, University College–Camden, and the School of Business–Camden will consider candidates for midyear admission.

Transfer Students

Transfer applicants should be aware that admission to Rutgers–Camden does not ensure admission to any specific program; the number of acceptances to certain departments depends in part on the number of places available in those departments. However, the university attempts to place students in the programs of their choice or to assist them in selecting suitable alternatives.

Students Seeking Readmission

The deadline for receipt of applications for readmission is August 1 for September readmission and December 1 for January readmission. These deadlines may be modified by the individual colleges. Students must submit applications with the college they last attended.

CREDENTIALS

Transcripts

Candidates must submit official transcripts of all work taken in grades nine through twelve and in other colleges and universities. The secondary school record should include rank in class (if available) or a grade distribution, grades for all courses taken, a listing of courses in progress, and credit granted and anticipated.

Transfer applicants for the fall term must submit transcripts that include fall term grades from the preceding year if enrolled in college that term.

Entrance Examinations

Candidates must submit official scores on the Scholastic Aptitude Test I (SAT) or the American College Testing Program (ACT), sent directly to Rutgers from the College Entrance Examination Board or the American College Testing Program, unless they have been out of high school for two years by the time of entrance or they are transfer students with 12 or more credits. Scores on three SAT II (subject
area) tests are required of candidates for admission by examination. Other candidates are not required to take SAT II (subject) tests but may submit scores if they wish. International applicants should refer to test requirements in the brochure "Supplemental Information for Undergraduate International Applicants."

High School Entrance Courses

Candidates for admission to Camden College of Arts and Sciences, University College–Camden, and the School of Business–Camden must complete a minimum of sixteen full-year academic courses in secondary school. The distribution of the sixteen full-year courses should be as follows:

English	4
Algebra I, II, Plane Geometry	3
Foreign Language (of one foreign language)	2
Science	2
Other academic subjects	5

The other academic subjects may be in the areas of social studies, sciences, college preparatory mathematics, or foreign languages. Candidates interested in the engineering (two plus two and two plus three) programs must have completed an additional course of college preparatory mathematics through precalculus and a year each of physics and chemistry.

Students who are conditionally admitted with a mathematics deficiency must make up that deficiency in one of the following ways: by successfully completing 50:640:042 Intermediate Algebra (no credit) or any mathematics course taken for credit at Rutgers, or by successfully completing, with at least a grade of C, any mathematics course acceptable for transfer credit. In addition, certain mathematics courses taken at other colleges which are not transferable, but in which a grade of C or better is received, may be approved by the Department of Mathematical Sciences.

Students who are conditionally admitted with a foreign language deficiency must make up that deficiency as follows:

1. Those students who have already completed one year at the high school level or one term at the college level must complete successfully a second term of the same foreign language as previously taken.
2. Students with no prior course work in a foreign language must successfully complete two terms of one foreign language.

Any course that is used to satisfy a mathematics or a foreign language deficiency may not be used to fulfill a general curricular requirement.

All deficiencies must be satisfied during the first two terms of attendance at Rutgers–Camden.

OTHER ADMISSION OPTIONS

Admission by Examination

If you have not completed high school, if you have a diploma from a nonaccredited high school, or if you have been home-schooled, you may apply for admission by examination by taking the SAT 1 or ACT and three SAT II (subject area) tests of the College Entrance Examination Board, including English and mathematics. The third examination may be taken in a subject of your choice, unless you are applying to the College of Pharmacy or Nursing, or the School of Engineering. For these schools, your third subject must be a science. Applicants who do not have the required academic courses may be admitted on the basis of their scores on the relevant SAT II (subject) tests, or they may be required to make up specific subject deficiencies.

General Educational Development (GED)

Applicants who have earned a General Educational Development (GED) certificate must submit an official report of their GED examination scores as well as transcripts from any high school(s) attended. GED applicants generally apply for admission by examination. However, for exceptionally strong applicants, the SAT II (subject) tests may be waived.

High School Junior Admission

Applicants who plan to apply to Rutgers as a high school junior must present a strong high school record and demonstrate readiness for college. Applicants who will not receive a high school diploma by the time of enrollment must apply for admission by examination (see above) and submit a transcript that includes grades for the first half of the junior year.

Educational Opportunity Fund

The Educational Opportunity Fund (EOF) program is a New Jersey state-sponsored program that provides academic and financial support to students who have demonstrated need for such services.

Eligibility Requirements

In order to be considered for the Educational Opportunity Fund program:

1. You and / or your family must have a documented history of financial and academic disadvantage and meet the income guidelines listed in the application materials.
2. You must be a New Jersey resident for at least one year prior to enrollment.
3. You must be a first-generation college student (i.e., your parents are not four-year college graduates).
4. You must have received a high school diploma or a high school equivalency diploma by the time you register for college.
5. You must be a U.S. citizen or an eligible noncitizen with a valid Alien Registration Receipt Card Form I-151, I-155, or I-94, indicating that you are a permanent resident.

Application Instructions

If you are interested in being considered for the EOF program, please complete the following steps:

1. Complete the standard application for admission. (Attach a copy of your Alien Registration Receipt Card Form I-151, I-155, or I-94 if you are an eligible noncitizen.)

2. Complete and sign the Educational Opportunity Fund Questionnaire. Your parents' signatures also are needed. This will allow us to review your eligibility for the program.
3. Attach copies of your parents' Federal Income Tax Returns for the last two years, including all schedules and attachments. Also attach Form SSA-1099 (for recipients of social security benefits) or a history page from your County Board of Social Services (for recipients of welfare/TANF [temporary assistance for needy families]), if applicable.
4. Complete the Free Application for Federal Student Aid (FAFSA), which will be available in high school guidance and Rutgers' financial aid offices after November 1, or online at http://www.fafsa.ed.gov. You can apply after January 1. Most EOF students who complete the FAFSA will be eligible for a variety of federal and state financial aid programs.
5. If you have participated previously in the EOF program at another New Jersey college, enclose a letter to University Undergraduate Admissions signed by your EOF counselor certifying your past participation. Also, submit to our financial aid office all financial aid transcripts from the colleges you have attended previously.

ACADEMIC CREDIT

Credit by Examination

College Board Advanced Placement Examinations. Candidates for admission who have completed advanced placement courses in secondary school are encouraged to take the College Board Advanced Placement Examinations. Advanced placement and degree credit are awarded for grades of 5 and 4.

Grades earned in this manner are not computed in the cumulative grade-point average. Through advanced placement, it is possible for a student to enter college with sophomore standing.

College Level Examination Program. The College Level Examination Program (CLEP) offers students the opportunity to obtain college credit by examination. Only certain subject examinations are accepted for credit, and only with the optional essay if the exam includes an essay. The grade required to earn credit and the amount of credit granted are determined by the appropriate department. Not every department accepts CLEP credit. Refer to the appropriate department for approved subject examinations and their equivalent Rutgers courses.*

Proficiency Examinations. Proficiency examinations are intended to enable a student to earn credit for subjects which normally are covered in Rutgers–Camden courses but which the student has mastered outside any credit-granting institution. Such credits may be used to fulfill prerequisites, to satisfy general curricular and graduation requirements, and to obtain graduation credits.

To take a proficiency examination, the student must first obtain the consent of his or her adviser and of the relevant department chairperson, who is the sole judge of whether an examination can adequately evaluate a student's mastery of the course material. It is the responsibility of the chairperson, or of a department member delegated by the chairperson, to decide the form of the exam; devise, administer, and grade it; and report the grade in writing to the registrar. To receive credit, the student must earn a grade of B or better. After receiving an unsatisfactory grade (C or lower), a student may not take another proficiency exam in the same course.

Proficiency examinations are available only to actively enrolled, matriculated students under the following conditions and limitations: the examination fee must be paid in advance; no more than 8 credits are given for elementary or intermediate levels of any foreign language; prospective graduating seniors may take no more than one examination in their final term; and in any case, no examinations will be administered after March 15.

Transfer Credit

Transfer credit is evaluated when all official credentials have been received and the applicant is accepted into a degree program. Courses taken outside the university may be considered for transfer credit if the following conditions are met:

1. Courses must be acceptable for an undergraduate degree granted by the college concerned.
2. Courses must be from an accredited institution identified in the application for admission to Camden College of Arts and Sciences, University College–Camden, or the School of Business–Camden and be equivalent to courses taught at the college. Evidence that the application reflects willful omission or misrepresentation in any part of the application, transcripts, or other supporting documentation will result in the revocation of admission or dismissal from the college. See "Transfer Credit" in the School of Business–Camden chapter for policies concerning transfer credit of upper-division business courses. Acceptability of a course not directly equivalent to one taught at the college is to be determined by the admissions office in consultation with the relevant department, except that:
   a. All courses from other undergraduate colleges of Rutgers are acceptable.
   b. All courses on the college's approved list of courses given at one of the New Jersey county junior colleges are acceptable. However, the maximum allowable number of transfer credits is 64.
3. Grades received must be equivalent to a Rutgers grade of C or better.
4. The final, official transcript(s) must be received as soon as possible, but in no case later than the completion of the student's first term of enrollment at Rutgers–Camden.

Grades received for courses given transfer credit from other institutions are not included in the cumulative grade-point average of work done at Rutgers.

SECOND DEGREE CANDIDATES

A student who already possesses a bachelor's degree from Rutgers or another accredited college or university and who wishes to obtain a second bachelor's degree must complete successfully a minimum of 30 new credits at Rutgers–Camden. Students matriculating for a second bachelor's degree at Rutgers–Camden must complete successfully all requirements for that degree in effect at the time of their matriculation for the second degree. Courses taken elsewhere, including those for the first degree, may be considered for transfer credit.

* Note: CLEP general examinations are not accepted for credit.

Tuition and Fees

Robert E. Neese, B.S., Director, Financial Services–Camden

FEE SCHEDULE

1999–2000 Academic Year

Note: The university reserves the right to alter the amounts indicated on the following schedule at any time before the first day of classes of a term.

Application Fee, nonrefundable *	$ 50.00
Tuition	
Full-time CCAS NJ resident, per term †	2,500.00
Full-time CCAS nonresident, per term	5,089.00
Full-time SB–C NJ resident , per term †	2,551.00
Full-time SB–C nonresident, per term	5,190.00
Part-time CCAS and UC–C NJ resident, per credit ‡	161.60
Part-time CCAS and UC–C nonresident, per credit‡	329.90
Part-time SB–C NJ resident, per credit	166.30
Part-time SB–C nonresident, per credit	336.05
College Fee, per term	
Full-time CCAS (12 or more credits)	487.00
Part-time CCAS (11 or fewer credits)	187.00
Full-time SB–C (12 or more credits)	516.50
Part-time SB–C (11 or fewer credits)	216.50
Part-time UC–C ‡	162.50
Computer Fee, per term	
Full-time	100.00
Part-time (based on number of credit hours)	20.00–47.00
Miscellaneous Fees	
Basic health insurance program, per term	
Required of all international students	93.23
Major medical insurance	128.50
Late registration fee	50.00
Late payment fee	50.00
Partial payment plan fee	10.00
Late payment fees for partial payment plan	
for the first week	10.00
for each additional week or part thereof until the total late fee reaches $50.00	5.00
Add / drop fee, per change (applies to change of registration due to student error or choice after the second week of classes)	5.00
Returned check fee	10.00
Transcript fee, per copy	3.00
NJ Public Interest Research Group (optional)	8.75

Note: All breakage and damage to university property is charged for in full. The university is not responsible for loss by fire or theft of private property in its buildings.

COLLEGE FEE

The student fee provides financial support for student activities, student health services and insurance, and intercollegiate athletics. In addition, the fee is used to amortize the construction loan for the local college center and to provide partial support for overhead operating costs of general facilities that are available to students.

The fees are allocated as follows:**

	CCAS Full-Time	CCAS Part-Time	UC–C Part-Time	SB–C Full-Time	SB–C Part-Time
General university fee	12.59	7.25	7.25	12.59	7.25
Student activities					
Regular	25.00	15.75	1.50	24.50	15.25
Special	8.00	4.00	4.00	8.00	4.00
Student center activities	16.50	7.50	3.75	16.50	7.50
Intercollegiate athletics	50.00	–	–	50.00	–
Club sports recreation	10.00	10.00	10.00	10.00	10.00
College life activities	5.00	5.00	5.00	5.00	5.00
Cultural and educational	8.00	8.00	8.00	8.00	8.00
Health services	95.16	–	–	95.16	–
Career development and placement service	25.00	25.00	25.00	25.00	25.00
Student recreation center operations & maintenance	98.00	33.50	33.50	98.00	33.50
Debt service–student center	58.00	14.50	14.50	58.00	14.50
Student center operations	49.25	30.00	30.00	49.25	30.00
Recreation center operations	20.00	20.00	20.00	20.00	20.00
School of Business fee	–	–	–	30.00	30.00
WPCR	2.00	2.00	–	2.00	2.00
Campus newspaper	4.50	4.50	–	4.50	4.50
Total	$487.00	$187.00	$162.50	$516.50	$216.50

TERM BILLS

Instructions for registration and payment of term bills are sent by mail to all students for the first and second terms with due dates indicated. Students who do not receive a term bill by July 15 for the fall term and by December 5 for the spring term should notify their local student accounting office promptly.

It is the student's responsibility to obtain, complete, and return the term bill on time. Students who fail to do so are charged a late payment fee of $50. Full-time students who are unable to pay their term bills in full by the stipulated time may pay their bill according to the partial payment plan policies.

Payment of the term bill may be made in person or by mail. Checks or money orders should be made payable to Rutgers, The State University of New Jersey. Cash should not be sent through the mail. We also accept Visa, MasterCard, and Discover credit cards, in person or by fax.

Returned Checks

A $10 service fee is assessed if a check presented for payment is returned to the university as uncollectible. If collectible payment is not made before late payment deadlines, the applicable late payment fees also are charged.

* Application can be made for up to three colleges.

† For an explanation of New Jersey residency status, see Student Residency for Tuition Purposes in the Academic Policies and Procedures chapter.

‡ Students pay according to the number of credits taken and are assessed the part-time college fee regardless of the number of credits carried.

** Figures are for the 1999–2000 academic year.

PARTIAL PAYMENT PLAN

Full-time students (12 or more credits) who are unable to pay their term bill in full may arrange with the local cashier's office to pay their bill, if it indicates a net balance of $200 or more, in three installments under the partial payment plan as follows:

First Payment

50 percent of the net balance due on or before the due date indicated on the term bill.

Second Payment

25 percent of the net balance due plus the $10 nonrefundable partial payment fee on or before September 15 for the fall term and on or before February 1 for the spring term.

Third Payment

Net balance due on or before October 15 for the fall term and on or before March 1 for the spring term.

Any student submitting a term bill after classes have begun for the term must make payment according to the following schedule:

First Payment

75 percent of the net balance due plus the $10 nonrefundable partial payment fee.

Second Payment

Net balance due on or before October 15 for the fall term and on or before March 1 for the spring term.

Any installments not paid according to the schedule incurs an initial late fee of $10 for the first week or part of a week that a payment is late, plus a $5 late fee for each additional week or part of a week thereof.

REGISTRATION

Activation of Registration

A student's registration is activated through the submission of a term bill accompanied by a payment, or an appropriate award of financial aid. Activation of registration does not take place if there are "holds" placed on a student's records because of failure to meet outstanding obligations of a financial, academic, or administrative action.

All term bills, regardless of balance, must be submitted to the university to finalize registration.

Termination of Registration

The university will exercise the right to terminate registration of any student who has an outstanding financial obligation to the university, after sufficient notice has been given to the student. A student whose registration is terminated at any time during the refund period because of nonpayment should contact student accounting immediately.

The university reserves the right to "hold" transcripts and diplomas as a result of nonpayment of obligations, to forward delinquent accounts to collection agencies, and to levy a collection fee. "Holds" will be removed upon satisfaction of the obligation. The terminated student may petition for reinstatement of enrollment by satisfying the indebtedness to the university and paying a $50 reinstatement fee.

Cancellation of Registration

To cancel registration and obtain a full refund of tuition and fees, the registrar must receive written notification from the student prior to the first day of the term. A student whose registration is canceled by the registrar receives a full refund of tuition and fees, and prorated charges for room and board, if applicable. Notification of cancellation received on or after the first day of the term is treated, for billing purposes, as a withdrawal, and a refund is made based on the general refund policy.

GENERAL REFUND POLICY

A student who voluntarily withdraws from all courses during the first six weeks of a term receives a partial reduction of tuition (and charges for room and board, if applicable) according to the week of withdrawal as follows:

first to second week:	80%
third to fourth week:	60%
fifth to sixth week:	40%

No reduction of tuition is granted after the sixth week. The effective date of withdrawal is the date on which a written statement of withdrawal is received by the registrar. Student fees are not refundable.

No reduction is granted after the tenth day of classes to students who withdraw from one or more courses, but remain registered in others. No adjustment is made from full-time to part-time status after the tenth day of classes. If withdrawal from one or more courses amounts to complete withdrawal from a program, the provision for full withdrawal applies.

Failure to attend class is not equivalent to a withdrawal, and a student will not receive an adjustment of charges unless a formal withdrawal is filed with and approved by the registrar, regardless of whether the student actually attended classes or took examinations.

Refund Policies for Title IV Funds Recipients

There are two additional refund schedules that differ from the General Refund Policy schedule for Title IV funds recipients. First-time Title IV funds recipients who withdraw completely from Rutgers are provided with a separate schedule under the Pro-Rata Refund policy.

For further information, please contact the financial aid office.

Financial Aid

Richard L. Woodland, M.A., Director of Financial Aid
Sherri M. Wolfinger, Associate Director of Financial Aid
Cynthia Davidson, M.A., Assistant Director of Financial Aid

The Office of Financial Aid is concerned with students' educational expenses. The impact of educational expenses upon the student and his or her family is sizable, in spite of the fact that tuition at Rutgers covers only a portion of the actual cost of instruction for each student. In order to allow students with limited financial resources to attend college, every effort is made to assist these students in finding alternatives in financing their education. The student and his or her family are expected to assume the primary responsibility for meeting educational costs. The amount that the student and his or her family are actually expected to contribute is determined from the information submitted on the Free Application for Federal Student Aid (FAFSA).

Each year, more than half the number of the Rutgers students who apply for financial aid receive some form of assistance. Although most financial assistance processed through the Office of Financial Aid is available only to students who demonstrate need and who are enrolled in a degree program, other forms of assistance also are available. In 1998–99, undergraduate students attending the university received more than $16.9 million in financial aid in the form of federal and state grants, loans, work-study jobs, and university scholarships for both academic achievement and financial need. The average aid package was $7,385.

Rutgers participates in the full range of state and federal financial aid programs and has a large number of university-supported programs. A brief description of each program follows. All students and parents are encouraged to file an application for financial aid.

Students with complex problems or who need additional assistance should request an appointment with an aid counselor. Generally, a student can expect to see a counselor within a day of making an appointment. All information is kept confidential.

Financial aid is awarded on a first-come, first-served basis to admitted students; the amount is dependent upon the availability of funds and is based on the student's financial need as determined by federal and state guidelines. Assistance is generally offered in a "package," a combination of grants and scholarships, loans, and campus employment. Continuance of all awards is dependent upon the student's filing a renewal application, continued financial need, satisfactory academic progress, and the availability of funds. Financial aid is available to all students, including first-year and transfer students.

HOW TO APPLY

Application Procedures. To be considered for need-based financial aid at Rutgers, students must file an application for admission and submit the Free Application for Federal Student Aid (FAFSA) to the federal processor at the address provided with the application. The Rutgers–Camden FAFSA code is 002629. The FAFSA can be obtained from high school guidance offices or any one of the regional financial aid offices at Rutgers. Mail the form as soon as possible after January 1 in the envelope provided. The Rutgers priority filing date is March 15. Submitting by the priority date ensures that you will be considered for all available sources of aid. Additionally, this allows sufficient time for Rutgers to process the application and give timely notification of aid offers. The FAFSA should be filed no later than October 1 if you are applying for spring term admission. Students must reapply for financial aid each year by submitting a renewal FAFSA. Renewal forms normally are mailed to continuing students in November and December. Applicants must request that a copy of the FAFSA be sent to Rutgers University.

Notification. First-year and transfer applicants who apply for aid and are admitted by March 1 can expect to receive a decision between April 1 and May 15. Students admitted after March 1 will receive notification of their financial aid within three to four weeks. All applicants for aid are notified whether or not they will be offered financial aid.

Spring Term Application Procedure. Applications for financial aid for the spring term are considered if funds are available. The FAFSA should be submitted to the federal processor no later than October 1 preceding the spring term.

Procedure for Part-Time Students. Students enrolled as part-time students may be eligible for the federal student aid programs described below. The amounts they are eligible to receive will be prorated according to their credit load. Half-time is considered 6 to 8.5 credits, while three-quarter time is 9 to 11.5 credits.

Study Abroad. It is recommended that all students planning to study abroad come into the financial aid office for a personal interview to discuss their plans and their eligibility for aid.

Academic Progress. In order for aid to be offered to returning students, satisfactory academic progress must be made. This includes both maintaining a grade-point average that meets the college scholastic standing committee's requirements, as well as earning a certain number of credits during each year of enrollment. Specifics detailing the policy are available upon request from financial aid offices and are provided to students each year with their financial aid award notice.

SOURCES OF FINANCIAL AID

There are three basic kinds of financial aid: gift aid (scholarships, awards, and grants), loans, and employment. Gift awards do not require repayment; grant terms stipulate that need be demonstrated, while scholarships generally have academic or other special requirements. Loans must be repaid, usually after the student leaves college. Employment programs allow the student to earn money for personal and other expenses through a part-time job. Putting the different types of aid together to meet financial need is the responsibility of the Office of Financial Aid and is referred to as the aid package. Decisions are based upon financial need, qualifications, and the funds available to the university.

After financial need has been established, the student is informed by letter of the exact nature of aid awarded. The total amount of each award is revised annually based upon the available funds and on information provided by

the family on the aid application filed each year. When comparing an aid offer from Rutgers with aid offered by another institution, consider not only the total dollars offered, but also the type of aid that is being offered and how much aid is being offered in relation to the cost of attending the institution.

Scholarships, Awards, and Grants

Funds are available from a variety of sources for scholarships, awards, and grants. These include university-endowed scholarships, tuition remission, federal grants, and state grants. In most cases, it is not necessary to submit special applications for particular scholarships administered by the university, provided a financial aid application has been filed. However, some forms of gift aid require separate application.

Edward J. Bloustein Distinguished Scholars Program. This program recognizes outstanding high school students in New Jersey with an annual $1,000 scholarship without regard to financial need. Selection is made by a state-level committee and is based on nominations made by high schools throughout the state of students who place in the top 10 percent of their graduating class and who have combined SAT scores of at least 1200, or are ranked first, second, or third in their class. Additional scholarships are provided to students from the state's urban and economically distressed areas based on class rank and cumulative grade-point average.

Federal Pell Grants. These grants are available to undergraduate students who have not earned a bachelor's or professional degree and are enrolled in a minimum of 3 credits per term. The award ranges from $400 to $3,300. Students must be citizens or permanent residents of the United States. Application is made by submitting a completed FAFSA.

Federal Supplemental Educational Opportunity Grants (FSEOG). Grants are provided by the federal government through the university to assist undergraduates with significant financial need. Application is made by submitting a completed FAFSA. The grants range from $200 to $2,000, depending on financial need and availability of funding.

New Jersey Educational Opportunity Fund (EOF) Grants. These grants are restricted to students from educationally and economically disadvantaged families with exceptional financial need. This award may range from $800 to $1,100 per year for resident students and $550 to $800 per year for commuting students. Usually, students must be enrolled full-time in a degree program and be residents of the state of New Jersey. Students should contact the college EOF director, the Office of University Undergraduate Admissions, and the Office of Financial Aid for additional information. Each student is required to submit the FAFSA.

Beyond the grant, the EOF program offers significant support services in areas such as reading and writing skills development, tutoring, and individualized counseling.

Tuition Aid Grants (TAG). These grants are restricted to New Jersey residents who are enrolled full-time, 12 credits or more per term. The award amount varies based on student need; the maximum award is designed to cover tuition costs at Rutgers. Students who wish to be considered for the Tuition Aid Grant must file the FAFSA. The New Jersey Higher Education Student Assistance Authority will send a Student Eligibility Notice (SEN) to the student with accompanying instructions and award amount. The student is responsible for informing the New Jersey Higher Education Student Assistance Authority of any changes to information that is incorrect on the SEN. The student also should submit these changes to the Office of Financial Aid.

Scholarships Administered by Various University Offices

The following scholarships are available to students registered in any of the university undergraduate colleges, unless otherwise noted.

Acme Scholarship Program. For students interested in careers in food management. Preference given to the families of Acme employees.

Alumni Legacy Scholarship. Established by the Alumni Federation in 1995 to provide merit scholarship awards to outstanding sons and daughters of alumni in their first year of undergraduate study at Rutgers. Nonrenewable.

Camden Provost Award. Outstanding high school students are selected for this prestigious award based on their high school rank and SAT scores. The award is for $2,500 per year and is renewable on the Camden campus. This award cannot be transferred to another campus.

James Dickson Carr Scholarship. Awarded to outstanding minority students selected on the basis of academic promise, as demonstrated in high school work and SAT or ACT scores, and on the basis of participation in extracurricular activities in school and community.

Robert B. Clark-Roche. Awarded to first-year students majoring in mathematics or a natural science. Merit and financial need are considered and preference is given to women and students of color.

Class of 1941 Scholarship. Preference given to descendants of the Class of 1941. Contact the Alumni Association.

Class of 1970 Scholarship. Preference given to descendants of the Class of 1970. Contact the Alumni Association.

Collegiate Merit Awards. Several of the undergraduate colleges offer collegiate merit awards. While the primary emphasis is on academic qualifications, scholarship committees at the colleges may establish different criteria that reflect the particular philosophy or mission of the college. These awards in some cases involve participation in a college honors program. Interested students should write to the dean's office of the school of matriculation for further information.

Elmer R. Deaver Foundation Scholarship. Annual scholarship to provide financial assistance to full-time undergraduate students based on need, with preference to persons who were employees of Quaker City Life Insurance Company at any time during the lifetime of Mr. Deaver, and their spouses, parents, or children.

Theodore J. and F. Elizabeth Kirsch Southern California Scholarship Fund. Awarded to students who reside and attend public high school in the California communities of San Jose, San Mateo, and Palm Desert. Both merit and financial need are considered.

Frances B. and Paige D. L'Hommedieu Scholarship Fund. Awarded to transfer students who complete the associate degree at a New Jersey county college. Must be residents of New Jersey. Application required—inquire at county college transfer office.

Casper Nannes Alumni Club of Washington, DC. Awarded to first-year students who reside in Washington, DC; Virginia; or Maryland. Merit, financial need, and extracurricular activities are considered.

National Achievement Scholarship. Awarded to first-year African-American students. Eligible students are selected by the National Merit Corporation and must select Rutgers, The State University of New Jersey, as their first-choice college.

National Guard Tuition Assistance. Open to a member of the New Jersey National Guard. Scholarship covers up to 12 credits of study per term, less other grants and scholarships.

National Merit Scholarship. Awarded to first-year students. Eligible students are selected by the National Merit Corporation and must select Rutgers, The State University of New Jersey, as their first choice college.

Nonuniversity Scholarships. Students should be aware that a number of companies, unions, civic groups, and other associations sponsor scholarships available to students at the university. Some of these awards—such as the New Jersey Golf Association Scholarships and the New Jersey Jaycee Scholarships—are administered through Rutgers, and the Office of Financial Aid can provide further information. Direct application to the sponsoring group must be made in the case of many other awards; high school guidance counselors may be able to assist students in exploring various possibilities.

Office of University Undergraduate Admissions

All admitted students who apply for admission by the official admissions deadline are automatically considered for merit awards administered by the Office of University Undergraduate Admissions. Separate applications forms are not required. All scholarships are renewable unless otherwise stated. All recipients will be informed as to the renewal eligibility requirements. Questions concerning these scholarships may be directed to the Office of University Undergraduate Admissions at 732/445-3770.

Patt Orino Nursing Scholarship. For nontraditional students majoring in nursing who demonstrate financial need. Amount of award varies.

Presidential Scholarship. Awarded to the most outstanding first-year students based on academic merit and extracurricular activities.

Rutgers University Award for Academic Achievement. Awarded to first-year students of color.

University and College Scholarships. A number of university and college scholarships are made possible through the generosity of alumni, clubs, professional organizations, industries, and private donors and the university. Generally, these awards are made on the basis of high academic achievement and financial need. For information about these scholarships, contact the Office of Financial Aid, Funds Management Section, Rutgers, The State University of New Jersey, 620 George Street, Room 140, New Brunswick, NJ 08901-1175.

University College–Camden Scholarships. University College–Camden students are eligible for University College–Camden scholarships funded by the contributions of alumni and friends. These scholarships ordinarily cover tuition up to a maximum of 9 credits per term and take into account the academic record of the student. Awards are made at the discretion of the dean of the college.

Wal-Mart Competitive Edge Scholarship. Awarded to a first-year New Jersey resident majoring in computer science, engineering, mathematics, or natural science. Merit, financial need, and community service are considered.

Zonta Club of Greater Camden Scholarship Fund. The Zonta Club of Greater Camden has established this fund to assist in defraying the tuition costs of a female student who has financial need and who merits such aid because of her high academic average.

Additional information is available on the Internet. Also, contact the Office of Financial Aid.

Loans

William D. Ford Federal Direct Student Loans

Federal Direct Student Loans (Direct Loans) are available for students directly from the federal government to pay for educational costs. To be considered for a Direct Loan, students must complete the FAFSA. Subsequently, the award letter issued by Rutgers will list eligibility for the program. Money for which students are eligible will be credited directly to their accounts. Because Rutgers has chosen to participate in Direct Lending, the university cannot accept any Federal Stafford applications from students or their lenders. Since the U.S. Department of Education is the lender for the Federal Direct Loan Program, borrowers will send all loan repayments to the department, rather than to several lenders.

In general, to be eligible for a Direct Loan, a student must have a high school diploma or a General Education Development (GED) certificate or meet other standards approved by the U.S. Department of Education, be a U.S. citizen or an eligible noncitizen, be enrolled at least half-time per term, be making satisfactory academic progress, have a Social Security number, sign a statement of educational purpose, not be in default on prior loans or owe refunds to a federal grant program, and register with the U.S. Selective Service Administration (males only).

In addition to these requirements, all first-time Federal Direct Loan borrowers must attend an entrance interview in order to be informed of their rights and responsibilities regarding the loan.

Federal Direct Subsidized Loan. This loan is based on financial need. The government pays the interest on the loan while the student is attending school. The interest rate is variable; that is, it is adjusted each year. Effective July 1, 1998, the maximum rate for the Federal Direct Loan was 8.25 percent. Additionally, borrowers are charged an origination fee of 3 percent. The amount students are permitted to borrow is based on their grade level and dependency status as defined by the federal government.

Federal Direct Unsubsidized Loan. This loan is not based on financial need, and all interest charges must be paid by the student. The interest rate is the same as the Federal Direct Loan.

Federal Direct PLUS Loan. Parents of dependent students may borrow from this program to help pay for college expenses. Applications and promissory notes are available at the financial aid office. Similar to the Federal Direct Loan, the interest rate is variable. The maximum rate for a Federal Direct PLUS Loan is 9 percent. Additionally, borrowers are charged an origination fee of 3 percent. This loan allows parents to borrow up to the cost of education minus other financial aid received by the student.

Federal Perkins Loan (formerly National Direct Student Loan-NDSL). Federal Perkins Loans are available to students who are enrolled in a minimum of 6 credits per term, who are citizens or permanent residents of the United States, and who demonstrate need through the FAFSA. The maximum amount a graduate student can borrow under this program at Rutgers is $2,000 per academic year, with maximum aggregate loan amount not to exceed $30,000 (including undergraduate NDSL and Perkins loan total).

Interest at the rate of 5 percent simple begins nine months after the borrower ceases to enroll in a minimum of 6 credits per term and extends over a maximum repayment period of ten years. Monthly payments of at least $40 are required. Deferral of repayment is permitted for certain kinds of federal service, and cancellation of loans is permitted for certain public services.

Consistent with federal regulations, all first-time Federal Perkins Loan borrowers at Rutgers are required to attend an entrance interview in order to be informed of their rights and responsibilities regarding the loan. In addition, Federal Perkins Loan recipients must attend an exit interview prior to graduation or withdrawal from school. Further details and procedures regarding the repayment of the Federal Perkins Loan are sent to each student recipient by Rutgers, The State University of New Jersey, Office of Student Loans, Division of Accounting, 65 Davidson Road, Piscataway, NJ 08854-8094.

Emergency Loans. Students who are experiencing an unusual financial emergency may apply for a university loan of up to $300. Students need not be recipients of financial aid or have filed a FAFSA to be considered. The interest rate is 3 percent, and the loan must be repaid within the same term (possibility of extension up to six months). An emergency need must be demonstrated and funds must be available.

Students should contact their local financial aid office for additional information. If loans in excess of this amount are required, an appointment with a counselor is recommended.

University College–Camden students are eligible for loans that are established through contributions of alumni and friends of Walter T. Elder, former business manager of University College–Camden. Loans are of a short-term nature, usually for one term, and are interest free until the due date. Delinquent loans are subject to a 3 percent charge per year. Loans are available to students who have completed a minimum of 15 credits in University College–Camden with a cumulative grade-point average of 2.0 (C) or better.

NJCLASS Loans. This program was initiated by the state of New Jersey in 1991. This program makes loans available to parents or other relatives of dependent students and independent students. Since this is a nonfederal loan program, applicants undergo a credit check. Some borrowers may need to have a cosigner. The program offers loans up to the cost of education. The interest rate for these loans varies according to the bond issue terms under which you borrow. Families must file the FAFSA before being considered for this program.

Employment

Federal Work-Study Program (FWSP). FWSP is a federal program that provides financial assistance through employment on campus or with nonprofit off-campus agencies to students who demonstrate need. Every effort is made to place students in jobs related to their skills, interests, and fields of study. Students in the program are limited to an average of fifteen hours of work per week during the academic year and full-time employment during approved periods when classes are not in session. Generally, students earn at least $5.40 per hour. Students who are offered work-study as part of their aid package should make an appointment with the staff in the financial aid office immediately upon arrival on campus.

On-Campus Employment. The career planning and placement office assists students in finding part-time employment whether or not students qualify for aid. Information concerning off-campus employment opportunities also is available at this office. The Division of Dining Services, the library, and other departments on campus also offer employment programs.

Other Sources of Aid

Army and Air Force ROTC Scholarships. Scholarships are available on a competitive basis to qualified applicants. Each provides full tuition, fees, reimbursement for required textbooks, and an allowance of $50 per month during the school year. High school seniors may obtain four-year scholarship applications through their high school guidance office or by writing or calling the ROTC departments at the Office for Student Affairs; 856/225-6043.

The university is precluded from providing institutional support to ROTC scholarships because Department of Defense policies discriminate on the basis of sexual orientation, which contradicts university policy.

Rehabilitation Educational Assistance. Disabled residents of New Jersey should contact the New Jersey Rehabilitation Center, 2600 Mt. Ephraim Avenue, Camden, NJ 08104; 856/757-2781.

Veterans Benefits. The U.S. Veterans Administration operates various education assistance programs for eligible veterans, war orphans, surviving spouse or child of any veteran killed while on duty with the Armed Forces, disabled veterans, dependents of a veteran with service-related total disability, and certain members of the selected reserve. Inquiries concerning eligibility may be directed to the Veterans Administration office in Newark, NJ (telephone 1-800/827-1000) or to the veterans coordinator on each campus.

Veterans and others mentioned above who plan to utilize veterans' education benefits initially should present the Veterans Administration Certificate of Eligibility Form(s) and/or discharge papers (certified copy of the DD214) when registering for courses. If applying for other financial aid with the university, veterans must report the fact that they will receive veterans' education benefits to the Office of Financial Aid.

Veterans planning to train under Chapter 32 VEAP, Chapter 30 of the New (Montgomery) GI Bill of 1984, or Chapter 106 for Reservists are required by the university

to pay cash for tuition, fees, books, and supplies, when due. Veterans, in turn, receive an allowance for each month of schooling based upon credit hours and the number of dependents.

No veteran may officially withdraw from a course (or courses) without prior approval from the academic services and/or dean of students offices. All withdrawals must be submitted in writing. The date of official withdrawal will be the determining date for changes in benefits. Failure to comply with the official school withdrawal procedure may affect both past and future benefits. Any change in schedule must also be reported to the campus Office of Veterans Affairs.

CHANGE IN FINANCIAL RESOURCES

Changes may occur in a family's situation throughout the year. Therefore, students may wish to appeal their financial aid award. This may be done by submitting a detailed letter (with documentation) to the financial aid office or by requesting an appointment with an aid counselor. It is university and federal policy that students cannot receive assistance in excess of their cost of attendance.

If unusual situations occur, such as loss of employment, death, incapacitation of a wage earner, or loss of some form of untaxed income, the financial aid office will provide professional advice on how forms can be reprocessed with the state and federal governments. Students are encouraged to make an appointment with a counselor to discuss this further.

Students also are required to report all changes in financial resources (unreported financial aid, employment, or other assistance) to their campus financial aid office as soon as they have knowledge of the change. Changes in such areas as an increase or decrease in family size and number of household members attending college need to be reported promptly. This information is used in both federal and state formulas for determining need, which in turn determines aid eligibility. Failure to do so can jeopardize continuation of all assistance.

Student Life

OFFICE FOR STUDENT AFFAIRS

Rory P. Maradonna, M.B.A., Associate Provost for Student Affairs/Dean of Students
Cynthia B. Riggs, M.A., Associate Dean of Students
Maureen T. Stridick, B.A., Administrative Assistant

Student Development

William Edwards, M.A., Assistant Dean
Tyrone W. McCombs, M.A., Assistant Dean
Miguel Greenup, M.A., Assistant Dean/Coordinator of Hispanic Affairs
Barbara A. Detterline, Ed.M., Assistant Dean
Nancy V. Gulick, M.B.A., Assistant Dean
Donna Parker, M.S.W., Assistant Dean
Evelyn B. Crawford, Principal Secretary
Shirley A. Blessing, Secretary
Mary A. Falls, Secretary

Career Planning and Placement

James A. Marino, M.A., Director of Career Planning and Placement
Cheryl A. Hallman, M.S., Assistant Director
Carol C. Young, B.S., Employee Relations
Barbara Thompson, Administrative Assistant
Kathryn T. McLaney, Secretary

Housing/Residence Life

Thom Nixon, M.S., Director
Wilma Williams, Secretary

Campus Center

Thomas J. DiValerio, M.A., Director of Campus Center
Allison A. Emery, B.S., Assistant Director of Campus Center
Bridget Britton, Principal Secretary

Bookstore

Frank Martinez, B.A., Manager

Dining Services

Mary E. Cantwell, B.S., Director of Dining Services
Irene Ulrich, B.A., Assistant Director of Dining Services
Shawne Greene, Production Manager
Ron Voughs, B.S., Chef/Manager

Facilities Use

Karen Caracino, Campus Facilities Coordinator

Athletics

Edward C. Cialella, Ph.D., Director of Recreation and Intramural Sports
Diana M. Compo, Administrative Assistant
Christine Smith, M.E.D., Senior Women's Administrator

Michael Ballard, Sports Information Director
Thomas E. Maxwell, M.A., Athletic Trainer
Gregory White, B.A., Strength and Conditioning Coach
Jeffrey Dean, M.E.A., Coordinator of Recreation and Intramural Sports
Charles Atkinson, M.A., M.S.W., Academic Adviser

The Office for Student Affairs, Armitage Hall, second floor, provides an array of services and programs that complements the academic experience and provides the support essential to student achievement and career goals. The Office for Student Affairs is comprised of several units which include: Student Development, Career Planning and Placement, Housing / Residence Life, Campus Center, Bookstore, Dining Services, Facilities Use, Student Activities, and Athletics.

STUDENT DEVELOPMENT

The academic and social integration of all students into the campus community is the primary goal of Student Development, a division of the Office for Student Affairs. The goal is achieved through a one-stop, multifunctional office that includes testing and advising, new student orientation, individual and group counseling, student advocacy, services for students with disabilities, and services for international students. Throughout the year, this division sponsors or cosponsors various programs around many issues that concern students. As part of this office, Hispanic Affairs also arranges Latin Recruitment Day, works with Latino alumni of Rutgers–Camden, and interacts with Latino student organizations on campus. Among other services, the staff is the liaison for the ROTC and is also the signatory in the withdrawal process.

Students may call 856 / 225-6043 at anytime with any questions. Office hours are 8:30 A.M. to 4:30 P.M., Monday through Friday, and two evenings per week until 7:00 P.M.

To ensure that seniors are satisfying the requirements for graduation, the deans in the Office of Student Development conduct meetings each term to help prospective graduates complete their curriculum worksheets and other materials in preparation for graduation.

CAREER PLANNING AND PLACEMENT

The Career Planning and Placement (CPP) Office offers a comprehensive career development program beginning with a student's first year of college. Major emphasis is given to helping students choose and prepare for a career and / or graduate or professional study.

Students can explore career possibilities through individual and group sessions. Pinpoint, a computerized career guidance software program, assists students in analyzing their career choices and provides help in researching careers and in establishing future goals. In addition, interest and personality testing are available to aid in the career decision process.

State-of-the-art hardware, software, and visual media are available to assist students with résumé writing, interviewing strategies, employer / graduate school research, and access to the Internet. Web Walk-up provides Internet access to job, internships, and on-campus recruiting.

Through a variety of workshops, special seminars, a large-scale career day, and a graduate school fair, students are aided in identifying career goals, developing employment / academic prospects, and implementing a career management plan.

Part-time, summer, and internship experiences enable students to test career choices and gain experience required by the employment community. Rutgers alumni are available, through the Alumni Career Network Program, to provide career assistance and advice to students. While CPP does not guarantee job placement, the ongoing job development program and on-campus recruiting program enhance the prospects for employment upon graduation.

CPP maintains a Career Resource Center containing information on hundreds of careers, employment opportunities, and graduate school programs.

Students are encouraged to make use of the services offered by CPP throughout their college and postcollege careers. The office is located in the lower level of the Camden Campus Center; 856 / 225-6046.

HOUSING

The Rutgers–Camden Tower, a ten-story brick tower complex, houses 252 students in 42 suites. Six students share a three-bedroom suite (two students per bedroom) that includes a living room, bath, and vanity area. Each suite is fully furnished and comes equipped with wall-to-wall carpeting, individual controls for heat and air conditioning, and is prewired for telephone and cable TV service. A campus phone is provided that links the residents with all offices on campus and all students residing in university housing. Other amenities include a small kitchen and study lounge on each floor; fully equipped, coin or cash card operated laundromat with a vending area for convenience foods; a computer lab; exercise rooms with steppers, bikes, a treadmill, and a universal system; and a large, comfortable, social lounge with a pool table, ping pong table, audio system, and a projection screen TV system that receives cable service.

The entrance to the housing complex is staffed by a uniformed University Police guard twenty-four hours a day, seven days a week, and the parking lot and grounds surrounding the Towers are monitored by closed-circuit television.

All undergraduate residents must contract for a meal plan through the campus dining service. Meal plans on the Camden campus complement the diversity and uniqueness of the student body by offering several plans developed to meet differing dining preferences.

Space is limited, and assignments are based upon the date of receipt of the completed housing application. Questions regarding on-campus housing should be addressed to the Rutgers–Camden Housing Office, 215 North Third Street, Camden, NJ 08102; 856 / 225-6471.

Many of the students at the Rutgers–Camden campus choose to reside either at home or in apartments or rooming houses in the vicinity of the campus. A listing of available off-campus housing is maintained at the housing office.

RESIDENCE LIFE

The Residence Life program fosters a special community among the students who reside on campus. An array of services and programs is provided to meet the needs of this diverse segment of the student population. Educational, social, cultural, and recreational/athletic presentations complement the student's academic pursuits and promote the total development of the individual. Talent shows, international dinners, trips to area museums and theaters, first-aid and CPR certification, and faculty-led programs are just a few of the offerings.

Living on campus encourages students to confront new ideas, live together cooperatively, and communicate meaningfully with the goal of producing positive and lasting effects in the area of living skills. Through a combination of self-government and the application of university-wide standards and guidelines for on-campus living, residents learn to coexist peacefully and productively with others whose backgrounds, interests, and values differ.

Full-time professional staff, as well as trained peer leaders, act as resource/referral agents, mediate conflict, offer counseling, and encourage participation in the building of this residential community. Choosing to live on campus is convenient, affordable, and secure and teaches living/learning skills that will last well beyond the college years.

CAMDEN CAMPUS CENTER

The Camden Campus Center is the hub of campus life, providing services, facilities, and programs to meet various social, recreational, and cultural needs of students, faculty, staff, and community members.

Four floors have been added to the existing Campus Center; they include conference rooms on the lower level, the bookstore on the main level, and student health and Campus Center staff offices on the second level. The third floor provides student organizations with an expanded complex to organize and work on various activities. Offices for the College of Arts and Sciences, School of Business–Camden, School of Law–Camden, Graduate School–Camden, and University College–Camden government associations are located here. The Campus Activities Board also occupies an office on this floor. Work spaces for twenty other campus organizations help to generate interaction and cooperation between diverse organizations. A special student-only meeting room and a work area outfitted with computers and a copier help improve organizational efficiency. Essential services, such as the reservationist and student fund bookkeeper, are located on this floor to provide easy access for the students. The Campus Center also houses the student activities office, career planning and placement office, and dining services.

Dining facilities and services vital to the Rutgers community are found in the center. These include the Courtyard Restaurant, Raptor Roost Pizza Parlor, the Food Court (consisting of six eateries in one location), plus Freshens Smoothee and Yogurt Bar, the Gallery Cafe, and the R-Mart.

The Cyber Cafe, located in the Gallery Cafe, provides students access to the Internet and a place where they can use a computer in a relaxing atmosphere. The cafe combines computer connectivity with a refreshing beverage or snack. Computers, coffee, and connectivity are all in one place. Interactive games are available. Participants are encouraged to compete on the computers located in the Cyber Cafe, but most of the games may be played on the Internet.

Students may participate in the Campus Center's concert ticket program with the Blockbuster Sony Music Entertainment Center. Students may purchase gold-star reserved tickets to the best seats in the house to an entertainment center performance or a ticket for our VIP box.

The Campus Center provides a number of locations that can be utilized for catering and conferences. Video games are located in the center and student lockers are available in the main lobby.

The computer lab in the Campus Center is equipped with Macintosh computers and PCs available for student use.

The Print Shop is located on the lower level of the Campus Center. All printing, from flyers to annual reports, can be coordinated. Color copying services also are available.

Campus Center staff offices are located on the second floor of the new addition; hours of operation are 8:30 A.M. to 5:00 P.M., Monday through Friday. The Campus Center Building general hours of operation are 7:30 A.M. to 12:00 midnight, Monday through Thursday; 7:30 A.M. to 6:00 P.M., Friday; and 10:00 A.M. to 6:00 P.M., Saturday and Sunday. Hours are subject to change. Summer hours are posted.

An ATM machine, located in the lobby of the Campus Center, is part of the NYCE network.

Campus Mail Service (CMS) boxes are located in the basement of the Campus Center, directly beneath the cafeteria.

Incoming students can have their photo ID taken in the Student ID Center. This ID serves as the official student identification card. The Student ID Center is located on the third floor of the Campus Center addition. Students must provide one other form of identification to obtain a student ID.

All students should have a student ID card. This card is used as a library card and a meal plan card. ID cards for first-time/first-term Rutgers students are issued free of charge. There is a $15 fee for all other students. Replacement of damaged ID cards costs $15.

During the academic year, ID hours are listed in the Gleaner and posted on bulletin boards. Contact the Student ID Center for more information.

All services and activities sponsored by the Campus Center are open to all members of the Rutgers community and their guests. Elevators, ramps, and lifts are available to any person who has special needs. You are encouraged to take advantage of our services and we welcome any feedback that you may have.

STUDENT ACTIVITIES

The Office of Student Activities assists individual students, clubs, and organizations with planning educational, social, and cultural programs. Activities such as speakers, dances, picnics, concerts, movies, and special events are an integral part of campus life.

The Office of Student Activities, located in the Camden Campus Center, is responsible for the recognition of all student organizations. Call 856/225-6161 for information.

Student Governing Association (CCAS)

The Student Governing Association is an organization of CCAS undergraduates elected by the student body for the purposes of self-government. The Student Governing

Association holds regular meetings during the academic year and, except where organizational activities are strictly partisan, political, or religious, appropriates funds for student activities and organizations and also provides representation to the committees of the college.

School of Business Student Congress

The School of Business Student Congress is elected to represent the interests of the students enrolled in the undergraduate School of Business–Camden. It holds regular meetings and is represented by groups such as the Marketing Association, Accounting Society, and the National Association of Black Accountants.

University College Student Council

The Student Council is an elected group of University College–Camden students who represent the total student body's interests in the university partnership of students, faculty, and administrators. It is through the council that students have a voice in matters that affect their educational development and environment.

Publications

The Gleaner, the student newspaper, serves the entire undergraduate Camden campus. As one of the largest small-college weekly newspapers in the East, it has won numerous awards and provides students with the opportunity to develop journalism skills. Other publications, such as the Quintessence, are designed to provide creative expression for individual and organizational interest.

Cocurricular Organizations

Cocurricular organizations have been established on campus to give greater scope to the activities of students who are interested in special fields of learning. These organizations include, but are not limited to, the American Chemical Society, the Marketing Association, the Philosophy Club, English Students Organization, Undergraduate Social Work Organization, and Student Nursing Association.

Extracurricular Organizations

There are over fifty student organizations on campus. They represent a broad range of interests, each offering opportunities for growth, service, recreational and social activity, or a combination of all three. These organizations include, but are not limited to, the Campus Activities Board, Art Students League, Black Students Union, Latin American Students Association, Returning Students Network, and the Women Students Organization.

National Greek Fraternities and Sororities

Rutgers–Camden has eleven national Greek organizations on its campus. Membership in a national fraternity or sorority will enhance friendships, leadership, and scholarship. The organizations are extremely active in community and university development and participate in social and charitable activities.

Religious Organizations

Numerous religious organizations provide spiritual guidance as well as fellowship. Further information may be obtained by calling the Student Activities Office at 856/225-6161.

BOOKSTORE

The university bookstore, managed by Follett Corporation, offers required textbooks, study aids and reference materials, best sellers, faculty publications, and a range of business, nursing, and other trade books.

Other offerings at the bookstore include clothing, cassettes and compact discs, audio books, computer supplies and software, giftware, greeting cards, and memorabilia.

A convenience store is located in the bookstore, supplying students with snacks, household products, and health and beauty aids.

The bookstore is located in the Campus Center. Hours of operation are 8:30 A.M. to 7:00 P.M., Monday through Thursday; and 8:30 A.M. to 4:30 P.M., Friday.

DINING SERVICES

All food and beverage services on the Camden campus are provided through Campus Dining Services. Catering arrangements can be made through the facilities use coordinator by calling 856/225-6161.

Campus dining operates the Food Court, which includes the Garden Salad Bar, Hormel Lite N Lean Deli Bar, Main-Course meals, Grill and Mexican Bar, and R-Mart Convenience Store. Also located in the Campus Center are the Raptor Roost Pizza Parlor, Freshens Smoothee and Yogurt Bar, the Gallery Cafe coffee shop, and the Courtyard Restaurant. Snack bar service is available in Armitage Hall and at Deliberations in the law school.

ATHLETICS AND RECREATIONAL SERVICES

Athletics and Recreational Services provides the opportunity for students to participate in a variety of intercollegiate athletic programs as well as recreational and intramural activities. The college is a Division III member of the NCAA and New Jersey Athletic Conference. Presently, teams are fielded in men's and women's soccer, basketball, cross country, track and field, men's baseball, women's softball, women's volleyball, and men's golf. In addition, men's and women's tennis and swimming are anticipated to be added in the near future.

The Scarlet Raptors Gymnasium is the focal point of open recreational activities, noncredited instructional courses, and intramural activities. The gymnasium is equipped with a main and auxiliary gym. It also houses a weight room, four handball/racquetball courts, four squash courts, and a six-lane Olympic-size pool. A wellness center also is planned for the future.

Recreational Services offers a myriad of noncredited-instructional courses that run for four, six, or eight weeks, depending on the subject. Course offerings run the gamut from aerobic dance to Zen meditation.

A variety of intramural activities also are offered for student enrichment. These include flag football, volleyball, basketball, softball, weightlifing, whiffleball, khwikball, tennis, racquetball, and indoor soccer.

The Office of Athletics and Recreational Services is located in the basement of the gymnasium. Students may contact the office at 856/225-6193, 6194, 6195.

Student Programs and Services

PAUL ROBESON LIBRARY

Gary A. Golden, Ph.D., M.L.S., M.A., Director
Susan J. Beck, M.L.S., M.A., Associate Professor
Jean D. Crescenzi, M.L.S., M.A., Emerita
Theodora Haynes, M.L.S., M.A., M.B.A., Associate Professor
Vibiana Kassabian, M.S.L.S., Visiting Assistant Professor
John Maxymuk, M.L.S., Associate Professor
James D. Nettleman, M.L.S., M.S., Associate Professor
Julie Still, M.L.S., M.A., Assistant Professor
E. Parker Worley, M.L.S., M.A., Director Emeritus

Reference Services: 856 / 225-6034
Circulation Services: 856 / 225-6033

The Paul Robeson Library contains more than a half-million bibliographic items, including 1,800 periodical and serial titles; nearly a quarter-million monographs; and more than 300,000 pieces of microform, bound periodicals, and government publications. Internet access to an even larger array of electronic resources is available both on-site and remotely through the library's web site. In addition, students have access on the campus to the comparably sized specialized collections of the Camden Law Library.

Local holdings of the library, which provides primary service for all schools on the campus (except law), are supplemented by the several million volumes contained in the other units of the Rutgers University Library System located in New Brunswick and Newark. Access to these collections is available through IRIS (Integrated Rutgers Information System) from web-capable workstations located in the Paul Robeson Library, in labs spread throughout the campus, as well as from remote locations (home, work) with proper authentication. Information on holdings of non-Rutgers libraries is provided through RLIN, the computerized bibliographic system of the Research Libraries Group. Materials from Rutgers and non-Rutgers libraries can be obtained on loan (books), by photocopy (articles), or increasingly via electronic delivery to a researcher's desktop workstation, through the intra / inter library loan service at no cost to the requester. The library system has various bibliographic, numeric, and other databases available twenty-four hours per day, seven days per week, via the World Wide Web.

The library staff is available to provide assistance to individuals in utilizing the wealth of informational resources available. In addition, the librarians meet with classes to provide instruction in general library use or, as part of the bibliographic instruction program, in the literature of a specific discipline. As active researchers, faculty librarians are especially well-situated to understand and explain the contemporary research environment.

The library building provides seating for over 850 students. A recently completed addition provides space for additional volumes and is fully wired for convenient access to the university's computer network. A significant multiyear renovation of the older portions of the facility is expected to be completed by 2004. Computer labs (operated by the computing services department), offering a variety of hardware and software infrastructure for both undergraduate and graduate students, are available on-site. Facilities also are provided for individual and group study, for the use of microfilm and other microtexts, and for photoduplication of both hard copy and microtext.

Library hours during the academic year, unless otherwise posted, are:

Monday–Thursday	8:00 A.M. to 11:00 P.M.
Friday	8:00 A.M. to 5:00 P.M.
Saturday	9:00 A.M. to 5:00 P.M.
Sunday	11:00 A.M. to 7:00 P.M.

Hours normally are extended late in each term and during exams, and are slightly reduced between terms and during summer school.

COMPUTING SERVICES

David L. Gwalthney, M.S., Director
Ann Bilbrough, Manager of Campus Facilities
Allen Burns, B.A., Telecommunications Analyst—Network
Jason Gambone, B.A., Telecommunications Analyst—Network
Stanley Kolasa, M.S., Associate Director
Edward McHugh, M.B.A., System Programmer—Novell / PC
Dennis Moffett, B.A., System Programmer—Novell / PC
Debbie Mojta, M.L.S., Manager of User Services
Nancy Rohrman, B.A., System Programmer—Unix
James Schmincke, B.A., System Programmer—Unix
Ron Thornton, User Support Services Specialist
Bob Young, B.A., System Programmer—Novell / PC
Bill Cornwell, Operator
Mary Sturdivant, Administrative Assistant

Camden Computing Services provides computing support for instructional programs through the following general services: instructional aid for course assignments; assistance in accessing information stored on microcomputers, minicomputers, and mainframes through flyers, documentation, tutorials, seminars, and consultation; and electronic communications (email, news, web pages).

Assistance is provided by student assistants in the use of minicomputers, microcomputers, mainframes, printers, and workstations; network access to Computing Services systems, library systems, and the Internet; microcomputer software access; and interpretation of diagnostics and other common problems.

Located in the Business and Science building, Computing Services operates the following equipment: Sun SPARC Ultra Servers for Unix, ADA, C programming, email, news, SAS, SPSS, and web service; an HP Color Scanjet to input graphics and perform text conversion; and Sun workstations. Various microcomputers (including Dell and Apple Macintosh) are available for student access and are located in the Business and Science building (rooms 108-110, 132-133), Campus Center (room 018), law school (rooms 102, 309, 408), Robeson Library (at the entrance and second floor), and dorms (first floor apartment side). All systems are available to support class assignments made by the faculty and other general instructional applications. Standard output across the campus is on laser printers.

Computing Services maintains the following languages / packages / applications:

Locally:	Pascal, Basic, C++, Pico, Sort, nn, ADA, SAS, SPSS, ftp, telnet, and Netscape
Micro-computers:	Basic, SPSS, WordPerfect, Microsoft Office, Macwrite, PageMaker, telnet, ftp, and Netscape
LAN:	Novell, Windows NT, Unix

Information about Camden Computing Services may be found at the www address: http: / / www.camden.rutgers.edu / RUCS-Camden / .

Computing Services hours are:

Monday–Thursday	8:00 A.M. to 11:00 P.M.
Friday	8:00 A.M. to 5:00 P.M.
Saturday	9:00 A.M. to 5:00 P.M.
Sunday	2:00 P.M. to 10:00 P.M.

Hours usually are extended late in each term and abbreviated between terms and during the summer.

For further information, the main office may be contacted at 856 / 225-6065; the HELP desk at 856 / 225-6274; or email to help@camden.rutgers.edu.

LEARNING RESOURCE CENTER

Valerie Smith Stephens, Ed.D., Director
Valencia C. Jackson, M.A., Learning Specialist

The Learning Resource Center (LRC), located in Armitage Hall, room 231, provides academic support services for the entire student body, particularly for undergraduates. The LRC remains open in the evenings, Monday through Thursday, to ensure convenient access to all students. A calender of specific activities is available each term. The following services are available at no charge:

1. Individualized learning assistance provides for personalized and individualized programs for academic self-improvement in study and learning skills. This service can benefit any student in learning more effective and efficient study techniques. The service may especially benefit students in academic difficulty or with learning disabilities.
2. Peer tutoring is available on a drop-in basis for undergraduate courses, such as algebra, biology, calculus, chemistry, French, German, and physics.
3. Study group development is facilitated among peers and classmates. Peer tutors also assist in the formation of study groups for difficult courses and support the academic needs of those groups.
4. Computer-assisted instruction is available as course support for some courses.

EDUCATIONAL OPPORTUNITY FUND PROGRAM

Lambert Blunt Jackson, Ph.D., Director
Leland Butler, B.A., Assistant Director
Caroline Feliciano, B.A., Bilingual Counselor
Carol A. Hammond, M.A., Senior Counselor
Jonathan Muse, M.A., Counselor / Recruiter
Jose Robinson, B.A., Counselor

The Educational Opportunity Fund (EOF) Program identifies through the university admissions and financial aid processes potentially academically strong students who meet the guidelines of the state-mandated EOF program. The multicultural and diverse student population that comprises the EOF student body receives extensive support services that include, but are not limited to:

1. an intensive academic preparatory summer program
2. a specially designed EOF Freshman Studies Program
3. academic advising and registration
4. coordination of study groups
5. special skills workshops
6. bilingual and ESL services
7. specialized tutorials

The Camden EOF program also administers and coordinates separately funded precollege programs.

Although the program is funded to serve EOF students, any Rutgers–Camden student is welcome to take advantage of most of the services offered during the academic year.

STUDENT HEALTH SERVICES

Paul Brown, M.A., Director, Nurse Practitioner
Daniel Gordon, Ph.D., Psychologist
Karen Kramer, M.S.N., Nurse Practitioner
Madrid Moore, Health Technician
Patricia Prior, M.D., Physician
Paulette Ritter, M.S.N., Nurse Practitioner
Robert Russo, M.A., Drug and Alcohol Counselor
Marie Serra, Psy.D., Psychologist, Coordinator of Psychological Services
Bonita Franco, Administrative Assistant

The Student Health Center is located at 326 Penn Street, Camden, NJ 08102 (856 / 225-6005). Rutgers Student Health Services (RSHS) provides a comprehensive set of ambulatory care and health education services for all full-time students. Part-time and University College–Camden students may become eligible by paying the student health service fee at any health center or at the Office of Student Health Insurance, Hurtado Health Center, Rutgers, The State University of New Jersey, 11 Bishop Place, New Brunswick, NJ 08901-1180; 732 / 932-8285. Applications also are available at the Camden Student Health Center.

The center is open from 8:30 A.M. to 4:30 P.M., Tuesday, Wednesday, and Friday. On Monday and Thursday, the center is open from 8:30 A.M. to 7:00 P.M. It is staffed by physicians, nurse practitioners, a part-time psychiatrist, psychologists, and a drug and alcohol counselor. A wide range of services is provided, including evaluation and treatment, general medical care, gynecology, psychological counseling, alcohol and other drug counseling, health education, physical examinations, laboratory tests, immunization, allergy treatment, and referral to other providers. In cases where RSHS does not offer the needed service, the staff provides students with a referral.

Appointments are encouraged to reduce waiting time. All services are rendered confidentially.

SEXUAL ASSAULT SERVICES AND CRIME VICTIM ASSISTANCE

Sexual Assault Services and Crime Victim Assistance staff provide support and assistance to crime victims, survivors, and other members of the university community. Advocacy, crisis intervention, short-term counseling, and referrals are available. Programs and services for students, faculty, and staff promote ways of reducing the risk of being a crime victim and the availability of resources and options should a crime occur. With a special emphasis on crimes of interpersonal violence, educational programs are available to the university community on issues concerning sexual assault, dating violence, stalking, and peer harassment.

For more information or to schedule an appointment or program, call 732/932-1181, visit the department web page at http://www.rutgers.edu/SexualAssault/, or email the staff at sascva@rci.rutgers.edu. The office is located at 3 Bartlett Street on the College Avenue campus, New Brunswick, NJ.

STUDENT HEALTH INSURANCE

All full-time students, by paying the student fee, and those part-time University College students who elect to pay the student health service fee are insured for up to $5,000 in medical expenses brought about by illness or accident. This policy provides excess coverage over other group insurance plans. Students have the option to purchase a major medical policy sponsored by the university which provides more extensive coverage. Students also may, for additional cost, purchase coverage for their spouse and children. Any student not covered by individual or family policies should consider this coverage. Information and applications are available from the Student Health Center, 326 Penn Street, Camden, NJ 08102 (856/225-6005), or from the Office of Student Health Insurance, Hurtado Health Center, Rutgers, The State University of New Jersey, 11 Bishop Place, New Brunswick, NJ 08901-1180; 732/932-8285.

PARKING

Very limited parking is available on campus. Students are urged to use public transportation whenever possible or to form car pools. Should it be necessary for a student to use a private vehicle to reach campus, it is the student's responsibility to become familiar with campus parking regulations. Information concerning student parking can be obtained from the Parking Department or the Bursar's Office, 9:00 A.M. to 4:00 P.M, Monday through Friday; 856/225-6137.

CAMPUS MAILBOXES

All students taking courses on the Camden campus are assigned a Camden Mail Service (CMS) box number. These boxes are located in the lower level of the Campus Center and are accessible during the school year. Official university communications, including registration forms, ID cards, term bills, financial aid forms, library notices, dean's office notices, extracurricular and special event notices, etc., are sent to CMS boxes. Residential students also receive first-class mail in their boxes. Since students are responsible for meeting all the deadlines specified in mail sent to their CMS boxes, they should check their mailbox frequently throughout the term.

ALUMNI

C. Paul Loane, Ed.M., Director of Alumni Relations–Camden

Alumni Relations

The university seeks the full support and interest of its alumni and, in return, offers them a number of services and programs. The responsibility for working with the university's entire alumni body, now numbering over 300,000, is vested in the Department of Alumni Relations. The department has two main objectives. First, it maintains contact with Rutgers alumni, informing them of the university's programs with the hope that they will assist Rutgers in fulfilling its educational goals. Second, the department encourages alumni to continue their college friendships after graduation through social, educational, and reunion activities.

All undergraduate colleges and most graduate and professional schools have their own alumni associations that sponsor programs based on the interests of the alumni of that college. The Rutgers–Camden Alumni Association traces its beginnings back to 1951. The organization represents nearly 20,000 graduates of the southern New Jersey campus of the Camden College of Arts and Sciences, University College–Camden, School of Business–Camden, and the Graduate School–Camden. Active membership is maintained through payment of regular alumni dues. The alumni association is represented in the Rutgers University Alumni Federation which sponsors university-wide programs, such as homecoming, and services, such as group travel and insurance. The Department of Alumni Relations provides guidance and administrative services to each of the college associations, as well as to a network of regional alumni clubs in New Jersey and throughout the country.

The university publishes a magazine for alumni and friends of the university.

The department maintains offices in Camden, Newark, and New Brunswick. The Camden office is at 411 Cooper Street, Camden, NJ 08102-1226; 856/225-6028.

Rutgers University Foundation

The Rutgers University Foundation was incorporated in 1973 as a semiautonomous division of the university responsible for soliciting funds from private sources.

With a full professional staff and a national network of volunteers who sit on advisory committees and assist in the solicitation of funds, the foundation has steadily—indeed, dramatically—increased the amount of annual private support for Rutgers, private support that provides funding for more than 1,500 university programs that encompass every division of the university and every campus.

In the process of developing new ways to finance programs at Rutgers from nonpublic sources, the foundation has garnered national recognition and awards for its fund-

raising and communications. The professional staff includes experts in corporate and foundation relations, an area that accounts for more than half of the private monies received by the university. It also includes specialists in deferred and planned giving, in fund-raising for athletics, in soliciting annual gifts, in obtaining major and special gifts, and in managing campaigns to fund capital needs. The staff also includes school development officers placed in most of the schools throughout the Rutgers system. On this campus, the College of Arts and Sciences is supported by Sharon Beales, CCAS '96, and the School of Business by Janet Kelleher, SBC '91.

In 1984, the foundation undertook the most ambitious fund-raising endeavor in the university's history, the $125-million Campaign for Rutgers. Using advanced fund-raising methods to identify new philanthropic sources for Rutgers, the foundation structured the campaign to raise funds for areas that have direct bearing on the quality of education and research at the university. Campaign funds were earmarked to support distinguished professorships, to underwrite new program development and departmental research, to allow for renovation of campus facilities, to endow scholarships and fellowships, and to establish a pool of "opportunity resources" for all university divisions. In 1990, the campaign concluded 34 percent over goal and in the process increased annual contributions to the university from $9 million to $27 million.

Since the conclusion of the Campaign for Rutgers, annual contributions have continued to rise, exceeding $60.7 million during the 1998–99 fiscal year, and the foundation has undertaken several successful multimillion-dollar, special-purpose campaigns: the Campaign for the Center for the Study of Jewish Life, the Campaign for the School of Law–Newark, the Campaign for Undergraduate Biological Sciences, the Campaign for Rutgers Stadium and Women's Athletic Scholarships, the Alexander Library Campaign, and the university-wide Campaign for Community, Diversity, and Educational Excellence.

The Camden campus offices are located at 411 Cooper Street, Camden, NJ 08102; 856/225-6028.

Further information about the foundation may be obtained from the Rutgers University Foundation, Winants Hall, Rutgers, The State University of New Jersey, 7 College Avenue, New Brunswick, NJ 08901-1261; 732/932-7777.

FORUM FOR POLICY RESEARCH AND PUBLIC SERVICE

Jay Sigler, Ph.D., Forum Director

The Forum for Policy Research and Public Service was developed to administer and facilitate interdisciplinary policy and/or academic research, undergraduate and graduate training, and university-related public service.

The forum publishes research based upon economic, political, and social data pertaining to the southern New Jersey region. It also conducts conferences on the Camden campus on subjects of regional concern.

The forum also engages in grant-funded projects such as survey research, program development and evaluation, and grantsmanship assistance. A primary criterion in accepting or responding to proposals is the degree to which student assistance and faculty interest may be built into the project. Rutgers faculty and graduate students are invited to discuss research proposals with the forum staff. The forum has facilities for publishing and disseminating research reports to a wide audience in southern New Jersey.

Among other activities, the forum hosts workshops, short courses, and policy forums, and coordinates the internship or field placement program for the master's program in public administration. The forum also publishes various research studies and a newsletter, Corporate Conduct Quarterly.

The Forum for Policy Research and Public Service is located at 401 Cooper Street, Camden, NJ 08102.

Academic Policies and Procedures

Note: See also Academic Policies and Procedures in the Camden College of Arts and Sciences, University College–Camden, and School of Business–Camden chapters for regulations specific to the individual colleges.

STUDENT RESPONSIBILITY TO KEEP INFORMED

This catalog provides a compendium of the rules governing undergraduate work at the university. Students are expected to keep their copy as a reference handbook and to familiarize themselves with the principal rules and regulations contained in it. In addition to the contents of this catalog, the Undergraduate Admissions Bulletin and the Schedule of Classes contain important information about the colleges. Students are responsible for keeping themselves informed of policies, procedures, and changes announced in these publications and in mailings to students' campus boxes.

REGISTRATION AND COURSE INFORMATION

Terry L. Richartz, M.S., Registrar, Camden Campus
W. Stanley Edens, M.P.P., Associate Registrar and Director of Veterans' Affairs
Betzaida Feliciano-Berrios, B.A., Assistant Registrar

Office of the Registrar
311 North Fifth Street
Camden, New Jersey 08102-1405

Telephones:

Office:	856 / 225-6053
Veterans' Affairs:	856 / 225-6045
Fax:	856 / 225-6453
Touchtone Registration:	856 / 225-1999

Web Site: http: / / registrar.rutgers.edu
Web Registration Site: webreg.rutgers.edu

Formal admission to the Camden College of Arts and Sciences, University College–Camden, or the School of Business–Camden and payment of tuition and fees are prerequisites to registration. All students, by virtue of registering, agree to comply with the regulations of the university and of the undergraduate colleges.

Registration consists of three essential steps:

1. course selection with the aid of faculty advisement or the advising office staff
2. entry of the selected program through Rutgers' Touchtone Telephone Registration System (RTTRS) or webreg.rutgers.edu by students with system access, or at the registrar's office for all other students
3. submission of the term bill to the bursar along with payment of tuition and fees for the approved program

It is important to note that the registration process is completed only after the student presents his or her term bill to the bursar along with payment or appropriate verification of financial assistance in accordance with the billing instructions.

It is the responsibility of the student to acquire, complete, and return registration and term bill information, including payment of tuition and fees, on time. Most registration notices are mailed to the student's campus mailbox in the Campus Center. When information is mailed, the student's last address of record in the registrar's office is used, but the university cannot and does not assume responsibility if the student fails to receive this information. Those who do not register within the time allotted are charged the late registration fee of $50. For further information, see the Tuition and Fees chapter.

Students seeking to return, having voluntarily separated themselves from the college, should refer to the Admissions chapter. Applications must be filed before August 1 for September reenrollment and before December 1 for January reenrollment.

Late Registration

Students who do not complete registration during the period prescribed in the registration instructions may do so during the late registration period. A late registration fee of $50 is charged. Permission to register late does not affect any academic policies.

Successive Registrations

All eligible registered matriculated students expecting to continue their programs in the succeeding fall or spring term are advised to take part in that term's registration in March or November, respectively. Instructions and forms for this purpose are mailed to students' Campus Mail Service boxes.

Participation in this exercise is not binding on students who do not return, for any reason, in the next term; however, eligible students who do return without having participated will be charged a late registration fee of $50.

Change of Courses

Students may add or drop courses during the late registration period preceding the term and continuing through the sixth day of the term. These changes may be made through telephone registration, webreg, or in person in accordance with the add / drop schedule. Priority is given to those students with the greatest number of degree credits already earned. As of the seventh day of the term, no adds are permitted, and all drops must be made in person in the Office of the Registrar. Changes sought by mail or fax are not accepted at any time.

Changes of registration during the first two weeks of classes do not incur a processing charge. As of the third week, and for the remainder of the term, a $5 fee, payable to the bursar, is charged for each course or section dropped or added.

Exceptions to these regulations can be made only by a college's committee on scholastic standing.

Drops. Courses may be dropped until the end of the eighth full week of the term without academic penalty, provided the student follows the change of course procedures, as described previously. Courses dropped between the end of the second and eighth weeks of the term are assigned a

grade of W. Students dropping a course after the end of the eighth full week of the term are assigned a grade of F, NC, or U in the dropped course; the grade of F is computed in the term and cumulative grade-point averages.

A student who unofficially drops a course for which he or she is registered without following the above procedure will receive a grade of F, NC, or U in the course.

No course may be dropped during the last two weeks of classes.

Special Registration Options

Pass/No Credit Courses

Students who have completed 63 credits may be permitted to register for a maximum of one course per term, outside the general curricular requirements and outside courses in the major field, for credit on a Pass / No Credit basis.

Permission to take a course on this basis rests with the instructor of the course and the student's adviser.

Courses taken in this program are graded Pass or No Credit as appropriate. A Pass grade earns degree credit and is equivalent to an A, B, or C. A No Credit grade is equivalent to a D or F. In either instance, the cumulative grade-point average is not affected. See Grades and Records below.

Students may choose to change a course registration to Pass / No Credit or to standard grading during the first eight weeks of the term; such changes must be processed through the registrar's office.

Pass / No Credit courses are indicated on registration forms by the prefix P in the credit-hour prefix area.

Any graduate of Rutgers may register for courses on a Pass / No Credit basis.

Auditing Courses

With the permission of the instructor and subject to available seating, students may audit courses at Camden on a noncredit basis. Students must indicate at registration that the course is to be audited (no credit) and may seek to convert it for degree credit only until the end of the add period. The instructor has discretion in granting class privileges and, in consultation with the student, determining if the final course grade will appear as a blank or as Satisfactory or Unsatisfactory. Audited courses are subject to tuition charges and are indicated on registration records by the prefix N in the credit-hour prefix area.

Repeated Courses

Students receiving a grade of D or F in a course designated as repeatable by the appropriate department and taken within their first two terms (regardless of the number of term credit hours attempted) may repeat the course in the next regular term in which it is offered. For students who have attempted fewer than 23 term credit hours in their first two terms, the repeat option extends through the third term. Exercise of this repeat course option is subject to the following restrictions:

1. This applies only to courses taken at Rutgers, The State University of New Jersey.
2. The option may be exercised only once for each course and only in the next term that the course is offered.
3. Repeatable courses are designated by the symbol R after their titles in the course description section of this catalog.
4. Students opting to repeat must indicate their intent by prefixing the symbol R to the credit value of the course at the time of registration.

Both the original and the repeated course grade appear on the student's permanent academic record, but only the better of the two grades of a repeatable course is computed in the cumulative grade-point average. Degree credit is allowed only once, when the course is passed the first time.

Intercollege Registration

A student in the Camden College of Arts and Sciences, in University College–Camden, or in the School of Business–Camden may apply to take courses offered at other divisions of the university. Intercollege registration requires the approval of the student's adviser.

Intercollege students must adhere to published deadlines and academic policies of the course-offering school. All grade changes are authorized by the course-offering school dean. All retroactive questions regarding course work taken in prior terms will be handled by the dean and / or scholastic standing committee of the student's school.

Concurrent Registration in Institutions outside of Rutgers (Transient Credit)

Matriculated students at Rutgers–Camden are expected to take all their courses at Rutgers–Camden unless a course required for graduation is not being offered during a student's final term. Lower tuition, scheduling convenience, or traveling distance are not considered sufficient cause for taking courses elsewhere.

Prior to enrollment, students who wish to enroll at another college for credit must submit a transient application form, available from the offices of academic deans, for approval by the chairperson of their major department, the chairperson of the department in which the equivalent course is offered, and the appropriate academic dean. Under no circumstances will transient approval be granted retroactively.

Students must have the registrar of the transient school send an official transcript directly to the Rutgers–Camden registrar upon completion of the work. Acceptance of transient credit is based on a grade of C or better.

Withdrawal

A student who desires to withdraw from the undergraduate colleges must:

1. obtain a Notification of Withdrawal Form from the registrar or his or her dean of students
2. secure an appointment with a counselor in the Office for Student Affairs for the purpose of obtaining permission to withdraw without penalty
3. be prepared to state in full, in writing, for the record, the reason(s) for withdrawing
4. obtain signatures of approval from the financial aid, housing, and, if applicable, EOF offices
5. return the completed form, in person, to the registrar

A student who leaves the college unofficially without following this procedure receives a grade of F, NC, or U in each course. A student who is unable to adhere to the above because of illness or other sufficient reason may submit the Notification of Withdrawal Form by mail to the registrar's office.

Refunds of tuition are calculated from the date when the written Notification of Withdrawal Form, approved by the Office for Student Affairs, is received by the registrar. See the Tuition and Fees chapter for information concerning the

computation of refunds of tuition. A student is not eligible for a refund unless his or her withdrawal is formally reported to the registrar.

When a student officially withdraws from the college, a grade of W is assigned in each course. This symbol is recorded on the student's record.

Withdrawal as such is not recognized during the last two weeks of class meeting; students leaving during this period receive standard grades for the term.

Please note that notification to the instructor, adviser, or school does not fulfill the student's obligation to communicate directly and in writing with the registrar in all matters pertaining to changes in registration and withdrawal.

Student Classification

With a minimum of 120 credits required to qualify for a degree, students following a normal four-year program are grouped according to their projected year of graduation on the basis of the number of credits they have satisfactorily completed, scaled as follows:

First-year students	0–22
Sophomores	23–57
Juniors	58–89
Seniors	90 and above

In special cases, classifications are decided upon by the registrar, with the advice of academic authority when necessary.

Full- and Part-Time Status

The designation of students as full- or part-time is necessary for the regulations governing tuition charges, student fees, statistical records, and other issues affected by such status. Status is determined during the fall and spring terms as follows:

12 or more credits	= full-time
6.0–11.99 credits	= half-time
fewer than 6 credits	= less than half-time

Student Identification

Registration forms, academic records, and related documents usually carry a series of numerical codes following the name to assist in identifying the student, the school of enrollment, and curriculum. These codes are:

Identification Number. Nine-digit social security number or number assigned by admissions for non-U.S. citizens.

School Code. A two-digit number identifying the school or college within the university to which the student has been admitted. On the Camden campus, there are five degree-granting divisions: Camden College of Arts and Sciences (50); University College–Camden (64); School of Business–Camden (undergraduate) (52); School of Business–Camden (graduate) (53); Graduate School–Camden (56); and School of Law–Camden (24).

Class Code. A two-digit number indicating the year in which the student is expected to graduate. This code may be changed to reflect the student's progress in satisfying degree requirements. Nonmatriculated students have a code of NM and unclassified transfers have no class code.

Curriculum Code. A three-digit number identifying the major field in which the student is enrolled.

GRADES AND RECORDS

Grades represent the level or quality of the student's performance in a course and are reported by instructors to the registrar at the end of the term by the following symbols:

Grade	Definition	Numerical Equivalent
A	Outstanding	4.0
B+		3.5
B	Good	3.0
C+		2.5
C	Satisfactory	2.0
D	Poor	1.0
F	Failing	0.0

Other Grade Symbols

S/U–Satisfactory/Unsatisfactory. Assigned when a course is taken on a noncredit basis. (See N under Credit Prefixes.)

P/NC–Pass/No Credit. A grade of Pass or No Credit that has no numerical equivalent is assigned to any student who has registered for a course on that basis when such registration is in accord with the regulations of the faculty governing the student and the faculty governing the course. P (Pass) is equivalent to an A, B, or C, while NC (No Credit) is equivalent to a D or F.

IN–Incomplete. This symbol may be used by the instructor when the student is unable to fulfill the course requirements and the completion of such would substantially improve the grade.

It is the student's responsibility to consult with the instructor to arrange for the conversion of the IN grade to a permanent grade. All remaining IN grades are converted to a failing grade (F, NC, or U) automatically, without notification to students, according to the following schedule:

February 1	fall term
June 1	spring term
September 15	summer term

Permission to deviate from this time limit must be obtained in writing from the instructor, approved by the course's department chairperson and the course-offering school's assistant dean of academic services, and received by the registrar prior to the end of the conversion period. A form for permission to extend the time period is available at the registrar's office. The registrar must receive the final grade, as instructed below, within one week after the extended deadline or a failing grade (F, U, or NC) is assigned without notification to the student.

All conditional grades and the specific nature of incomplete work are reported by the instructor to the department chairperson.

After completion of the required work, the instructor must submit the revised grade on a Change of Grade form (available to faculty from the registrar) and deliver it to the registrar with authorization from the following:

for school 50 (arts and sciences courses)—the department chairperson and the associate dean of the college
for school 52 (School of Business–Camden courses)—the dean of the school

Students may determine if a grade was changed by calling 856/225-1999 to access the grade-reporting option of the touchtone telephone registration system, or at registrar.rutgers.edu.

Ordinarily, grades from the fall term may not be changed later than July 1, and grades from the spring term or from any of the summer sessions may not be changed later than December 1. In any case, it should never be expected that any grades, except for grades of IN, will be changed. Grade changes other than ones involving IN conversions may be made only in consultation with the dean. Grades are not to be changed on the basis of reevaluations of work that has already been graded.

R–Reexamination Permitted. This symbol may precede a grade only when the instructor cannot assign a grade better than D and considers the examination grade to be so inconsistent with the student's previous work as to merit a reexamination. The payment of an examination fee of $5 to the bursar is prerequisite to taking the reexamination. The original grade remains standing if the reexamination is not taken prior to the dates listed above under IN—Incomplete.

TZ–Temporarily Not Graded. The TZ grade is assigned to students who never attended classes for a course, or stopped attending and did not officially withdraw, or were not graded by instructors.

Students are responsible for contacting the registrar to correct registration errors that have resulted in TZ grades and, when necessary, for contacting instructors to arrange final grades.

TZ grades remaining on records convert automatically to failures, without notification to students, for the fall term on May 1 and for the spring and summer terms on December 1. The winter session follows fall term conversion dates.

W–Withdrawn without Evaluation. Used when the student officially withdraws from the college. (This symbol also is used when a student drops an individual course after the second week of the term.) This symbol is not used for absence during the last two weeks of the term, since withdrawals without penalty are not permitted at that time.

Credit Prefixes

E. Course does not carry degree credit; grade is not computed in the cumulative grade-point average.

J. Counts as degree credit, but is not calculated in the cumulative grade-point average.

K. Does not count as degree credit, but is calculated in the cumulative grade-point average.

N. Course does not carry degree credit; grade does not affect the cumulative grade-point average. The grade assigned will be S or U. The grade also can appear as blank for audited courses.

P/NC. Indicates that the course was taken under the Pass/No Credit grading option. Degree credit is granted when the grade is Pass; the grade does not affect the cumulative grade-point average. See Pass/No Credit Courses above.

R. Repeated course option, available to students in their first year at Rutgers University; grade may have an effect on degree credits and cumulative grade-point average. See the previous section on repeated courses.

Credits and Deficiencies

The grades of A, B, C, D, and Pass entitle a student to degree credit. Once taken and passed, a course may not be repeated, either to improve a cumulative grade-point average or to amass further credit toward a degree. For the one exception to this regulation, see Repeated Courses above.

However, a student wishing to retake a course for self-improvement may register as an auditor, without credit and without conversion privileges. (See Auditing Courses above.) In unusual cases, a standard grade may be shown; this requires special registration (for details, consult the registrar). Courses repeated in this fashion become a part of the student's permanent academic record.

The grades of IN and NC do not entitle a student to degree credit and are regarded as deficiencies. Lost or withheld credit can be recouped only by successfully repeating the course, substituting another approved course, or successfully completing unfinished work, as appropriate.

Academic Warning Notices

Instructors provide the registrar with the names of students deficient in performance and/or attendance, and the registrar sends academic warning notices to their campus mailboxes. Early warnings are issued only to newly admitted students after the fifth week of the term and to the general population after the seventh week.

Course/Grade Documentation

Unofficial Grade Reporting. Immediate access to verbal grade information is available to all students who call the touchtone telephone registration system (856/225-1999) or the registrar's web site registrar.rutgers.edu. Students requiring written documentation also may order a free unofficial copy of their full academic record or a record for any single term through the touchtone telephone registration system. Receipt of the written records can be expected within ten working days. Copies are sent to campus mailboxes during the fall and spring terms, and to home addresses at other times. The current term's grades are usually available three or four days after a final exam, following submission by the instructor and computer entry by the university. Term and cumulative grade-point averages are calculated after a term's faculty grade-reporting deadline has passed.

Official Transcripts. Official transcripts of record cost $3 per copy and are prepared by the Office of the Registrar only upon receipt of the student's signed request authorizing release. However, an institution previously attended by a student may request a transcript for purposes of educational research; any student who does not want the record released must so notify the registrar in writing. Further clarification of policy may be obtained from the Office for Student Affairs or the registrar.

All transcripts include the student's academic record to date, including courses failed, but may be ordered to show: only courses taken while admitted as an undergraduate; only courses taken while admitted as a graduate student; or the complete undergraduate and graduate record.

Requests for transcripts should be addressed to: Transcript Clerk, Office of the Registrar, Rutgers, The State University of New Jersey, 311 North Fifth Street, Camden, NJ 08102-1405. Include the student's full name while enrolled, social security number, dates of attendance, school(s) attended, degree(s) awarded and date(s), name and address of the recipient, and student's signature. Faxed requests may be made to 856/225-6453 (receipt of the fax should be confirmed by calling 856/225-6053).

The $3 fee is payable at the bursar's office for all in-person requests. Mailed requests should be accompanied by a check or money order made payable to Rutgers, The State University.

No charge is made for transcripts supplied for use within the university. For an additional fee, the transcript will be faxed to other educational institutions. In accordance with university policy, no student or former student may obtain a transcript of record, in part or whole, for any course(s), if he or she is under financial or disciplinary obligation to the university.

Transcript requests are processed on a first-come, first-served basis and may require ten working days for preparation and release. "Instant" transcripts cannot be issued.

Student Complaints about Grades

The classroom, studio, or laboratory instructor has the responsibility for assignment of grades. Complaints about a grade must be directed to the instructor, in writing, within ten working days of its assignment. Disputes unresolved at this level are referred, in writing, to the appropriate departmental chairperson. Complaints remaining unresolved at this level should be directed, in writing, to the dean of the appropriate college.

Verification of Enrollment

A student may request verification of his/her enrollment by contacting the registrar. Ten working days should be allowed for processing. Certification of attendance in a given term will be issued only after the student has submitted a term bill and some form of payment to the bursar to activate registration. Often it is necessary for the student to repeat the verification process at the start of each term in order to continue deferment of student loan repayment, to maintain health insurance coverage, etc.

Refer to the section entitled Student Records and Privacy Rights regarding the release of information from student files.

Holds

Holds are placed by departments and offices to suspend certain privileges for students with outstanding university obligations. A student's grades and transcripts of record are held when immunization requirements have not been cleared by Student Health Services. In addition to withholding grades and transcripts, the university also bars a student from participating in registrations and receiving diplomas at commencement when other obligations exist for unpaid monies, unreturned or damaged books and equipment, parking fines, other charges or legal indebtedness to the university, or for noncompliance with disciplinary sanctions or administrative actions and directives.

CLASS SCHEDULES AND HOURS

Starting and closing dates for each term, scheduled holidays, and other important scheduling information can be found in the academic calendar in this catalog and in the Schedule of Classes.

The Schedule of Classes also includes term course offerings, their instructors, and meeting times and locations, as well as exam schedules, registration activities and deadlines, and other important information.

The Schedule of Classes for each of the fall and the spring terms is available in the registrar's office shortly before registration periods begin. A revised schedule is published in mid-August for the fall.

Students also should consult their own college's section in this catalog for additional course information.

Confirmation of Schedules

Students are expected to verify the accuracy of their schedules and to learn of classroom changes through the Rutgers' Touchtone Telephone Registration System or at webreg.rutgers.edu.

Attendance

Students are expected to attend all scheduled sessions of the courses for which they are registered. Absences normally impair both student proficiency and the accuracy of their instructor's evaluations. Students with excessive absences (as determined by the instructor) may, at the discretion of the instructor, be given a failing grade in the course.

Instructors may require students who are absent excessively to obtain verification of the necessity for their absences from the Office for Student Affairs before permitting them to demonstrate that they have compensated for lost work. Three consecutive absences are reported immediately to the Office for Student Affairs.

Students enrolled for credit in courses where final examinations are given must take final examinations. University hour examinations are not scheduled on Saturdays except in those courses that regularly meet on Saturdays.

Absence Due to Religious Observance

It is the policy of the university to excuse without penalty students who are absent because of religious observances and to allow the makeup of work missed because of such absence. Examinations and special required out-of-class activities are ordinarily not scheduled on those days when such students refrain from participating in secular activities. A student absent from an examination because of required religious observance is given an opportunity to make up the examination without penalty.

Cancellation of Classes

It is the general policy of the university not to cancel regularly scheduled classes because of inclement weather. In most cases, therefore, when emergencies occur that disrupt local transportation facilities or create personal problems, students and faculty members should make decisions as to attendance that appear appropriate to them in their particular circumstances.

During severe weather conditions, announcements are made over Camden and Philadelphia radio stations. The decision to cancel classes is made by the Camden provost. If no announcements are made before 5:30 P.M. for evening classes, it can be assumed that classes are in session. The campus is not identified by name but by the following radio code numbers: 605 for daytime classes (8:00 A.M.–6:00 P.M.) and 2605 for evening classes (6:00 P.M.–10:30 P.M.).

Arrangements for makeup work are announced by individual instructors.

SCHOLASTIC STANDING

Cumulative Grade-Point Average

A student's academic rank is determined by the cumulative grade-point average. This weighted average is computed by multiplying the numerical value of the grade received in each course taken for credit, and to be included in the average, by the number of credits the course is worth to obtain the grade points earned in that course. The grade points earned in all such courses are then added together and the sum divided by the total credits of those courses.

Grade (Numerical Equivalent) x Credits = Grade Points

$$\frac{\text{Total Grade Points}}{\text{Total Credits}} = \text{Cumulative Grade-Point Average}$$

Students who have transferred from other colleges receive advanced standing for courses taken, as determined by evaluation; however, non-Rutgers grades are not recorded on the academic records, nor are such grades calculated in the cumulative grade-point average. The cumulative grade-point average appearing on the academic record is a reflection of the scholastic performance of the student only while enrolled in the Rutgers system and is the basis for the determination of academic standing and any academic honors or penalties.

Committee on Scholastic Standing

The Committee on Scholastic Standing oversees the implementation of academic regulations, advises students in writing of the decisions taken, and receives such petitions for exemptions from college academic policy as change of courses after the deadlines, course overload, readmission to the college, and retroactive withdrawal from courses and from the college. Ordinarily, the committee considers petitions for retroactive withdrawal no later than one year after the end of the term in which the courses in question were taken. Students wishing to submit a petition to the committee should obtain the proper forms from the Office for Student Development on the second floor of Armitage Hall. Such petitions are considered by the Committee on Scholastic Standing on the basis of technical error, new information, and/or extenuating circumstances. Only fully documented written petitions are considered.

Poor Academic Performance

Students may be dismissed from the college if their cumulative grade-point average drops below 2.0. Degrees are not awarded to candidates whose average grades for their entire work taken at the university in candidacy for their degrees are less than 2.0.

The scholastic standing of all students is computed at the end of each term. The records of all students who are deficient, that is, whose cumulative grade-point averages are less than 2.0, are referred to the Committee on Scholastic Standing. This committee reviews the work of all deficient students at the close of each term and may take any of the following actions.

Warn Students. All students whose grade-point average for a term's work is less than 2.0 are warned, and participation in extracurricular activities may be limited.

Place Students on Probation. All students whose cumulative grade-point average is less than 2.0 are ordinarily placed on probation. Probationary status ordinarily implies that students will be dropped at the end of the term of probation unless their work shows marked improvement.

Specify Terms or Courses of Action. The committee may specify on what terms students may continue their registration in the college, or what steps they must take toward the end of achieving a satisfactory academic record. It may, for example, require that students attend the summer session, that they maintain a specified quality of work, that they complete a certain amount of work within a limited time, or that they include specified courses or repeat certain work, even if such work already was passed.

Dismiss Students. The committee may direct that students be dropped from the rolls of the college. Normally, the committee drops students if their cumulative grade-point average drops below the following levels:

1.400 after one year of attendance
1.700 after two years of attendance
1.900 after three years of attendance

Note: Since University College–Camden students are predominately part-time students, the cumulative grade-point average is based on the total number of credits, not years in attendance.

Transfer students are dropped if they do not achieve the following cumulative grade-point average:

1.400 with 22 degree credits
1.700 with 57 degree credits
1.900 with 89 degree credits

Readmission

Students who have been dismissed from the college are not readmitted until they have produced evidence that they can pursue further academic work satisfactorily. Readmission is denied to those students who, once separated from the university, have such low cumulative grade-point averages that ultimate graduation appears improbable. Students are not readmitted after a second drop action. Students should keep in mind that only grades earned in the various colleges of the university may be included in the Rutgers cumulative grade-point average.

Petitions for readmission in September must be submitted prior to August 1. Petitions for readmission in January must be submitted prior to December 1. The petition forms for readmission are available in the Office for Student Affairs on the second floor of Armitage Hall.

POLICY ON ACADEMIC INTEGRITY SUMMARY

"Academic freedom is a fundamental right in any institution of higher learning. Honesty and integrity are necessary preconditions to this freedom. Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. Joint efforts are legitimate only when the assistance of others is explicitly acknowledged. Ethical conduct is the obligation of every member of the university community and breaches of academic integrity constitute serious offenses" (Academic Integrity Policy, p. 1).

The principles of academic integrity entail simple standards of honesty and truth. Each member of the university has a responsibility to uphold the standards of the community and to take action when others violate them.

Faculty members have an obligation to educate students to the standards of academic integrity and to report violations of these standards to the appropriate deans.

Students are responsible for knowing what the standards are and for adhering to them. Students also should bring any violations of which they are aware to the attention of their instructors.

Violations of Academic Integrity

Any involvement with cheating, the fabrication or invention of information used in an academic exercise, plagiarism, facilitating academic dishonesty, or denying others access
to information or material may result in disciplinary action being taken at either the college or university level. Breaches of academic integrity can result in serious consequences ranging from reprimand to expulsion.

Violations of academic integrity are classified into four categories based on the level of seriousness of the behaviors. Brief descriptions are provided below. This is a general description and is not to be considered as all-inclusive.

Level One Violations

These violations may occur because of ignorance or inexperience on the part of the person(s) committing the violation and ordinarily involve a very minor portion of the course work. These violations are considered on academic merit and not as disciplinary offenses.

Examples: Improper footnoting or unauthorized assistance on academic work.

Recommended Sanctions: Makeup assignment.

Level Two Violations

Level two violations involve incidents of a more serious nature and affect a more significant aspect or portion of the course.

Examples: Quoting directly or paraphrasing without proper acknowledgement on a moderate portion of the assignment; failure to acknowledge all sources of information and contributors who helped with an assignment.

Recommended Sanctions: Probation, a failing grade on the assignment, or a failing grade in the course.

Level Three Violations

Level three offenses involve dishonesty on a significant portion of course work, such as a major paper, an hourly, or a final examination. Violations that are premeditated or involve repeat offenses of level one or level two are considered level three violations.

Examples: Copying from or giving others assistance on an hourly or a final examination, plagiarizing major portions of an assignment, using forbidden material on an hourly or final examination, using a purchased term paper, presenting the work of another as one's own, altering a graded examination for the purposes of regrading.

Recommended Sanctions: Suspension from the university for one or more terms, with a notation of "academic disciplinary suspension" placed on a student's transcript for the period of suspension, and a failing grade in the course.

Level Four Violations

Level four violations are the most serious breaches of academic integrity. They include repeat offenses of level three violations.

Examples: Forgery of grade change forms, theft of examinations, having a substitute take an examination, dishonesty relating to senior thesis, master's thesis, or doctoral dissertation, sabotaging another's work, the violation of the ethical code of a profession, or all infractions committed after return from suspension for a previous violation.

Recommended Sanctions: Expulsion from the university and a permanent notation on the student's transcript.

Faculty who believe that violations have occurred should immediately contact the Office of the Dean. Students who suspect that other students are involved in actions of academic dishonesty should speak to the instructor of the course. Questions on reporting procedures may be directed to the Office of the Dean.

UNIVERSITY CODE OF STUDENT CONDUCT SUMMARY

> A university in a free society must be devoted to the pursuit of truth and knowledge through reason and open communication among its members. Its rules should be conceived
> for the purpose of furthering and protecting the rights of all members of the university community in achieving these ends.
>
> All members of the Rutgers University community are expected to behave in an ethical and moral fashion, respecting the human dignity of all members of the community and resisting behavior that may cause danger or harm to others through violence, theft, or bigotry. All members of the Rutgers University community are expected to adhere to the civil and criminal laws of the local community, state, and nation, and to regulations promulgated by the university. All members of the Rutgers University community are expected to observe established standards of scholarship and academic freedom by respecting the intellectual property of others and by honoring the right of all students to pursue their education in an environment free from harassment and intimidation.
>
> Preamble
> University Code of Student Conduct

Overview

Communities establish standards in order to ensure that they are able to fulfill their mission and keep their members from harm. The University Code of Student Conduct (referred to as "the code" in the remainder of this summary) defines those kinds of behavior that violate the standards of the Rutgers University community and also provides the mechanism for addressing alleged violations. In doing so, the code protects the rights of those accused of offenses (referred to as "respondents" in the remainder of this summary) by providing due process while also protecting victims of those offenses and the university community as a whole.

Process

The following summary presents key aspects of the code. Students should consult the code itself for complete information on each point.

Filing a Complaint

Any individual may file a complaint against a student suspected of violating the code by notifying the dean of students (or equivalent) of the respondent's college or school, or the director of judicial affairs in the Division of Student Affairs.

Preliminary Review

Upon receipt of a complaint, a preliminary review is conducted by the dean of students (or equivalent) or his or her designee to assess the evidence and determine if it is sufficient to proceed to a hearing. The dean conducting this review also assesses the seriousness of the charges. The most serious charges can, upon a finding of responsibility, result in separation from the university (suspension or expulsion) and are heard at university hearings. Less serious offenses (nonseparable offenses) are heard according to the procedures in place at the student's college or school of affiliation.

Separable Offenses

The following offenses are deemed serious enough to result potentially in separation from the university should a student be found responsible at a hearing:

1. violations of academic integrity
2. forgery, unauthorized alteration or unauthorized use of any university documents or records or any instrument or form of identification
3. intentionally furnishing false information to the university or intentionally initiating or causing to be initiated any false report, warning, or threat of fire, explosion, or other emergency
4. use of force against any person or property or the threat of such force
5. sexual assault or nonconsensual sexual contact
6. hazing
7. violation of the university's Student Life Policy against Verbal Assault, Defamation, and Harassment (Copies are available from the judicial affairs office or dean of students' office.)
8. unauthorized entry into, unauthorized use of, or misuse of university property, including computers and data and voice communication networks
9. intentionally or recklessly endangering the welfare of any individual or intentionally or recklessly interfering with any university activity or university sponsored activity
10. use, possession, or storage of any weapon, dangerous chemical, fireworks, or explosive, whether or not a federal or state license to possess the same has been issued to the possessor
11. the distribution of alcohol, narcotics, or dangerous drugs on university property or among members of the university community, if such distribution is illegal, or the possession of a sufficiently large quantity as to indicate an intention to distribute illegally
12. theft of university services or theft of, or intentional or reckless damage to, university property or property in the possession of, or owned by, a member of the university community, including the knowing possession of stolen property (Intentional or reckless misuse of fire safety equipment is regarded as damage under this section of the code.)
13. the violation of the ethical code of one's intended profession either by graduate students enrolled in any of the university's professional or graduate schools or by undergraduate students in clinical courses or settings related to their intended profession
14. violations of federal, state, or local law where such violations have an adverse effect on the educational mission of the university
15. failure to comply with the lawful directions of university officials, including campus police officers acting in performance of their duties
16. knowingly providing false testimony or evidence; disruption or interference with the orderly conduct of a disciplinary conference or hearing; violating the terms of any disciplinary sanction imposed in accordance with this code, or any other abuse of the university's disciplinary procedures.

Campus Advisers

Both complainants and respondents may select a campus adviser to assist them during the disciplinary process. Campus advisers may fully represent students, including speaking on their behalf. The Office of the Vice President for Student Affairs maintains a list of trained campus advisers for this purpose. Students are free to select any member of the university community to serve as their advisers, whether or not they are on the list.

Attorneys

Complainants and respondents also may, at their own expense, seek the advice of an attorney in addition to that of a campus adviser. Attorneys are free to advise students, to assist in the preparation of their cases, and to attend hearings, but may not speak on behalf of their clients or question witnesses at a hearing.

University Hearings

University hearings are presided over by a hearing officer and heard by a hearing board usually composed of three students and two faculty members. It is the hearing board's responsibility to determine whether the accused student is responsible or not responsible for violating the code. If the hearing board determines a student to be responsible by the standard of clear and convincing evidence, it also recommends a sanction for the offense to the vice president for student affairs. The vice president for student affairs considers the hearing board recommendation and determines the sanction.

Appeals

A student found responsible for violating the code may appeal the finding, the sanction, or both. Appeals are filed through the Office of the Vice President for Student Affairs, which forwards them to the Appeals Committee of the appropriate campus (Camden, Newark, New Brunswick).

Authority for Student Discipline

Ultimate authority for student discipline is vested with the Board of Governors of Rutgers, The State University of New Jersey. This authority has been delegated to university administrators, faculty, students, committees, and organizations as set forth in the University Code of Student

Conduct. The above summary is intended to present some key facts of the code. Copies of the code are available from all dean of students' offices and have been placed at the reference desks of all university libraries. In addition, the director of judicial affairs in the Division of Student Affairs will provide copies of the code upon request and is available to answer any questions about the code or related judicial matters.

Misrepresentation in Admissions Application or Supporting Credentials

In the admission process, students certify that their applications, including supporting credentials, are complete, factually correct, and honestly prepared. Evidence that the original application reflects willful omission or misrepresentation in any part of the application, transcripts, or other supporting documentation results in the revocation of admission and dismissal of offending students from the college.

UNIVERSITY SAFETY AND SECURITY

Providing a safe and secure environment for all members of the university community is the mission of highest priority for the university's public safety staff. The staff comprises commissioned police officers with full investigative and arrest authority, security officers, and dispatchers. Members of the public safety staff patrol each campus and respond to requests for assistance on a full-time basis, 365 days a year and 24 hours a day.

Rutgers' safety and security employees are only part of the university-wide crime prevention team. All members of the university community also are part of that team. It is the duty of all students, faculty, and staff to maintain actively a safe environment; to use due care in their own safety and the safety of others; and to comply with all local, state, and university regulations regarding their own protection and the protection of others.

The executive director for public safety is responsible for safety and security services on the New Brunswick/Piscataway campus. On the Newark and Camden campuses, these responsibilities reside in the Office of the Provost.

Information regarding public safety at Rutgers is available from the campus police departments. Safety Matters, a brochure outlining public safety statistics, services, and programs on each of Rutgers' regional campuses, is published annually and distributed free of charge. To receive a copy of Safety Matters, please call the appropriate Rutgers Police Department office at one of the following numbers:

Camden: 856/225-6009
Newark: 973/353-5547
New Brunswick: 732/932-8407

ADMINISTRATIVE PROCEDURES FOR RESPONDING TO DISRUPTIONS

An academic community, where people assemble to inquire, to learn, to teach, and to reason together, must be protected for those purposes. While all members of the community are encouraged to register their dissent from any decision on any issue and to demonstrate that dissent by orderly means, and while the university commits itself to a continual examination of its policies and practices to ensure that causes of disruption are eliminated, the university cannot tolerate demonstrations that unduly interfere with the freedom of other members of the academic community.

With this in mind, the following administrative procedures have been formulated to guide the implementation of university policy:

1. The president of the university and the vice president for academic affairs will have the authority throughout the university to declare a particular activity to be disruptive. When neither the president nor the vice president for academic affairs is available to make such a decision, the senior vice president and treasurer or the provosts of Newark and Camden have the same authority.
2. Broadly defined, a disruption is any action that significantly or substantially interferes with the rights of members of the academic community to go about their normal business or that otherwise unreasonably interrupts the activities of the university.
3. A statement will be read by the appropriate officers as specified in (1) or by such officers as they may designate for the purpose of such reading and will constitute the official warning that the activity is in violation of university policy, that it must cease within a specified time limit, and where appropriate, that no commitments made by university officials will be honored if those commitments are made under duress.
4. If the activity continues beyond the specified time limit as determined by the official in authority, the authorized officers as specified in (1) will have the discretion to call upon the university police to contain the disruption. Ordinarily, the president of the university alone, or in his or her absence the vice president for academic affairs, will have the authority to decide that civil authorities beyond the campus are to be called upon to contain those disruptions that the university police are unable to handle. In extraordinary circumstances, where neither the president nor the vice president for academic affairs is available to make such a decision, the senior vice president and treasurer or the provosts of Newark and Camden have the same authority.
5. The deans of students are the chief representatives of the deans of the colleges in all matters of student life. Members of the university community who are aware of potentially disruptive situations are to report this to the deans of students on their respective campuses. In a disruption, the deans of students and their staff members have a twofold responsibility: to protect against personal injury and to aid in providing for the order of the university. In the latter case, the deans of students, as well as other university personnel, may be called upon to coordinate or assist members of the academic community in ending the disruption, directing it to legitimate channels for solution, or identifying those who have violated the rights of others.

POLICY PROHIBITING HARASSMENT

The university prohibits harassment based on race, religion, color, national origin, ancestry, age, sex, sexual orientation, disability, marital status, or veteran status. Harassment is a kind of discrimination that violates state and federal civil rights laws, and is defined for purposes of those laws and the university's policy as any behavior that:

1. is unwelcome
2. targets a person because he or she has one or more of the protected characteristics
3. is engaged in by a person employed by or doing business with the university
4. is sufficiently severe or pervasive to alter negatively that person or a group member's living, educational, or working environment

Sexual harassment can take the form of unwelcome sexual advances; requests for sexual favors; or other unwelcome written, verbal, electronic, telephonic, or physical conduct of a sexual nature. Hostile environment harassment on the basis of sex, race, religion, color, national origin, ancestry, age, sexual orientation, disability, or marital or veteran status is persistent behavior that has the purpose or effect of unreasonably interfering with a person's work or academic performance or creating a hostile environment.

If you think you have been harassed on the basis of any of the protected categories listed above, have observed harassing behavior, or need more information, you are encouraged to contact the Director of University Harassment Compliance, Rutgers, The State University of New Jersey, 3 Bartlett Street, New Brunswick, NJ 08901-1190, 732/932-3122; or by email at msgriff@rci.rutgers.edu. You may obtain copies of the policy prohibiting harassment and the process for making or responding to a complaint on our web page (http://www.rci.rutgers.edu/~msgriff/).

POLICY AGAINST VERBAL ASSAULT, DEFAMATION, AND HARASSMENT

Statement of Principles

Intolerance and bigotry are antithetical to the values of the university and unacceptable within the Rutgers community. One of the ways the university seeks to effect this value is through a policy of nondiscrimination, which prohibits discrimination on the basis of race, religion, color, sex, age, sexual orientation, national origin, ancestry, disability, marital status, or veteran status in university programs. In order to reinforce institutional goals of nondiscrimination, tolerance, and civility, the following policy against verbal assault, defamation, and harassment makes clear to students that such behavior toward others violates acceptable standards of conduct within the university. (This policy is not intended to supersede the university's policy against harassment.)

Verbal assault, defamation, or harassment interferes with the mission of the university. Each member of this community is expected to be sufficiently tolerant of others so that all students are free to pursue their goals in an open environment, able to participate in the free exchange of ideas, and able to share equally in the benefits of our educational opportunities. Beyond that, each member of the community is encouraged to do all that she or he can to ensure that the university is fair, humane, and responsible to all students.

A community establishes standards in order to be able to fulfill its mission. The policy against verbal assault, defamation, and harassment seeks to guarantee certain minimum standards. Free speech and the open discussion of ideas are an integral part of the university community and are fully encouraged, but acts that restrict the rights and opportunities of others through violence, intimidation, the destruction of property, or verbal assault, even if communicative in nature, are not protected speech and are to be condemned.

Prohibited Conduct

Any of the following acts, even if communicative in nature, are prohibited "separation offenses" (charges that could lead to suspension or expulsion from the university) under the provisions of the University Code of Student Conduct:

1. Use of force against the person or property of any member of the university community or against the person or property of anyone on university premises, or the threat of such physical abuse. (Verbal assault may be prosecuted as a "threat of . . . physical abuse.")
2. Theft of, or intentional damage to, university property, or property in the possession of, or owned by, a member of the university. (Acts of graffiti or other vandalism may be prosecuted as "intentional damage to . . . property.")
3. Harassment, which is statutorily defined by New Jersey law to mean, and here means, purposefully making or causing to be made a communication or communications anonymously or at extremely inconvenient hours, or in offensively coarse language, or in any other manner likely to cause annoyance or alarm, or subjecting or threatening to subject another to striking, kicking, shoving, or other offensive touching, or engaging in any other course of conduct or of repeatedly committed acts with purpose to alarm or seriously annoy any other person. Harassment is considered a separation offense under the University Code of Student Conduct.
4. Defamation, which is judicially defined to mean, and here means, the unprivileged oral or written publication of a false statement of fact that exposes the person about whom it is made to hatred, contempt, or ridicule, or subjects that person to loss of the goodwill and confidence of others, or so harms that person's reputation as to deter others from associating with her or him. Defamation is considered a separation offense under the University Code of Student Conduct.

While any of the four categories of acts listed above is a separation offense, that, if proven, could lead to a sanction of expulsion or suspension from the university under the provisions of the University Code of Student Conduct, clearly minor instances of such prohibited behavior should be resolved at the college level and not be treated as separation offenses requiring a university-level hearing. The initial judgments of whether a particular act is of a separable or nonseparable level are made by the appropriate college official and are subject to review by the Office of the Vice President for Student Affairs.

Students who believe themselves to be victims of verbal assault, harassment, or defamation should report such incidents to the dean or the dean of students of their college or school. In addition, the following individuals have been identified to handle complaints:

Brian T. Rose, director of compliance and student policy concerns, 3 Bartlett Street, College Avenue campus, 732/932-7312;

Cheryl Clarke, director of diverse community affairs and lesbian/gay concerns, Bishop House, Room 105, College Avenue campus, 732/932-1711;

Rory P. Maradonna, associate provost for student life, Armitage Hall, Room 248, Camden campus, 856/225-6050;

Raymond T. Smith, associate provost for student affairs, Center for Law and Justice, Newark campus, 973/353-5541.

Some complaints can and should be resolved by informal methods, while others will require the implementation of formal procedures. All complaints are treated confidentially; complainants are encouraged to report incidents even if they do not wish to pursue the matter beyond the reporting stage.

NONDISCRIMINATION POLICY

It is the policy of Rutgers, The State University of New Jersey, to make the benefits and services of its educational programs available to students without discrimination on the basis of race, religion, color, national origin, ancestry, age, sex (except Douglass College, which is entitled under the law to remain a single-sex institution), sexual orientation, disability, marital status, or veteran status. The university complies with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. Questions about these laws, or allegations of student rights violations, should be directed to Brian T. Rose, Director of Compliance and Student Policy Concerns and Designated Employee for Student Rights Compliance, Rutgers, The State University of New Jersey, 3 Bartlett Street, New Brunswick, NJ 08901-1190; 732/932-7312.

Discrimination Based on Sexual Orientation

Rutgers, The State University of New Jersey, has a clear policy that seeks to guarantee that the services and benefits offered to its students are available equally to all. This includes equality regardless of sexual orientation. However, ROTC programs are governed by the United States Department of Defense, which maintains a policy of discrimination against gays, lesbians, and bisexuals. Hence, equal opportunities are not guaranteed to all who may wish to fully participate in ROTC programs.

The university's opposition to the Department of Defense policy of discrimination will be actively maintained until full equality of access and benefits is available to all, regardless of sexual orientation. In the meantime, the university has secured the rights of all students to enroll in and receive academic credit for ROTC courses. Students who believe that they have been subjected to discrimination by ROTC, or by any other division of the university, should contact Dr. Emmet A. Dennis, Vice President for Student Affairs; 732/932-8576.

EQUITY IN ATHLETICS DISCLOSURE ACT REPORTS

In compliance with the Equity in Athletics Disclosure Act, Rutgers provides information on men's and women's athletic programs, and the participation rates for male and female athletes. The first report was issued in October 1996 with annual updates thereafter. The reports are available at the reference desks of the main branches of the university library system (Alexander Library, Library of Science and Medicine, Robeson Library, and Dana Library), and at the intercollegiate athletics offices.

STUDENT RECORDS AND PRIVACY RIGHTS

Rutgers, The State University of New Jersey, complies with the Family Educational Rights and Privacy Act of 1974 (FERPA) and makes public announcement of the law. FERPA was designed to protect the confidentiality of student records, guarantee student access to certain records, regulate disclosure of information from student files, provide opportunities for students to correct or amend records and add explanatory statements, and provide opportunities for students to file complaints with the U.S. Department of Education alleging infractions of the law.

FERPA permits the university to provide directory information without the student's consent unless the student requests that such information be kept confidential. Rutgers defines directory information as name, campus mailing address and telephone number, campus email address, RUCS user name, permanent address and telephone number, school of attendance, major field of study, class year, dates of attendance, current credit load, credit hours earned, degree(s) received, date(s) of degree(s), weight and height of intercollegiate athletes, and most recent previous school attended.

The most common ways by which the university releases student directory information are:

- through the verifications division of the Office of the Registrar or similar offices that have access to student records. (The office is called upon to verify that a student is enrolled at the university by potential employers and credit agencies, among others.)
- through the Rutgers Online Directory, a database of Rutgers students, faculty, and staff that is available through the Rutgers homepage (http://www.rutgers.edu) and accessible worldwide via the Internet.

Students control the information that appears in the Rutgers Online Directory and may display or hide any of the information listed by visiting the directory homepage and following the posted instructions.

Students also may request that all directory information be kept confidential by obtaining a form for this purpose from the registrar's office. Students should be aware that requesting confidentiality of directory information makes this information unavailable to all, including prospective employers, credit agencies, and others to whom you may want this information known or verified. Thus, it is recommended that students carefully consider whether personal privacy concerns outweigh the possible inconvenience and detriments of having directory information withheld. Subsequent to filing the request, directory information remains confidential while a student is enrolled or until a written request that this restriction be lifted is received from the student by the registrar's office. As with all confidential records, Rutgers will release a student's confidential directory information only with the student's written consent or if otherwise required by law.

The university uses a student's social security number as a student identification number. While this number is not released as directory information and its confidentiality is protected in the same manner as are other educational records as defined by FERPA, the university offers students the opportunity to acquire a substitute student number. Students wishing to have a substitute number assigned should fill out the appropriate forms in the registrar's office.

Further information on the law and Rutgers' policy and procedures on compliance with FERPA is available from the director of compliance and student policy concerns; 732/932-7312. All official notices regarding FERPA are archived at http://www.rci.rutgers.edu/~polcomp.

STUDENT RESIDENCY FOR TUITION PURPOSES

A determination of residency status for the purpose of tuition assessment is made by the university based on information provided by the applicant in accordance with the procedure outlined in the policy. A copy of the policy may be secured from the registrar's office or the admissions office.

Procedure

The Initial Determination

At the time an individual initially applies for admission into any graduate or undergraduate college or division of the university, the respective admissions office determines an admitted applicant's resident status for tuition assessment.

The determination made at this time shall prevail for each term unless a change is authorized as provided hereinafter.

After the Initial Determination

The status of residency for tuition purposes of students continuing in a college or division of the university is determined by the registrar of the respective college or division. The determination made by the registrar either conforms to the initial determination of the admissions office or reflects a change as provided hereinafter.

Request for a Change of Status

Requests for a change in residency status are accepted no later than the last week of the term for which changed status is sought. All supporting affidavits, deemed appropriate by the adjudicating official pursuant to New Jersey Administrative Code, Volume 9, Section 5 et seq., must be filed by the petitioner in accordance with the time limit specified in the preceding sentence, but in no case later than four weeks from the conclusion of the term for which the residency assessment is requested. Failure to comply with this provision, unless judged otherwise by the adjudicating official, voids the petition for the term in question. If, based on the information submitted in the request, the student qualifies for resident tuition assessment, such change relates only to the current and subsequent terms. No adjustments in tuition assessments are made and no refund vouchers are processed for any prior term.

Appeals

Appeals from the initial determination and any determination made after a request by a student for a change in residency status are accepted no later than three months after the date of notification of any such determination. Unresolved appeals are forwarded to either the university director of graduate admissions or to the university registrar. These officers respond to the student within thirty working days of the receipt of the appeal in the appropriate office. Appeals from this determination should be submitted to the vice president for university budgeting by the student within two weeks after the director of admissions or the university registrar has issued a determination. The decision of the vice president for university budgeting will be final.

Students' Responsibilities

Students are responsible for providing relevant information upon which a residency determination can be made. The burden of proving his or her residency status lies solely upon the student. Moreover, it is considered the obligation of the student to seek advice when in doubt regarding eligibility for in-state tuition assessment. If the student delays or neglects to question his or her eligibility status beyond the period specified above, the student forfeits his or her right to a residency assessment to which he or she might have been deemed to be eligible had he or she filed an appeal at the appropriate time.

Penalties

If a student has obtained or seeks to obtain resident classification by deliberate concealment of facts or misrepresentation of facts or if he or she fails to come forward with notification upon becoming a nonresident, he or she is subject to disciplinary action.

RESEARCH POLICY AND RESEARCH CENTERS

Research at the university, apart from that conducted by students in connection with their academic course work, is in general intended to lead to publication in some form so that its results are available to interested persons everywhere. The university does not accept grants from or enter into contracts with governmental agencies or any other sponsors for research projects of which the results may not be made publicly accessible; all university-conducted research must be available for public scrutiny and use.

Most research projects at the university are carried on by faculty members and students within the facilities offered by their own departments, but for on-campus research that cannot be conducted in department facilities, laboratories, or the library, the university has provided a number of cooperative research centers and bureaus. A list of the university's research centers may be found in the Divisions of the University chapter.

Many members of these organizations are active in graduate instruction. Information about their programs and activities may be found in Research at Rutgers, a handbook and bibliography published by the Research Council, the university agency that sponsors and coordinates faculty research.

PATENT POLICY

All students are governed by the university's patent policy, which is described in a statement available in the Office of Research and Sponsored Programs and the offices of all deans and department chairpersons.

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Christine Todd Whitman, Governor of the State

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Divisions of the University

ACADEMIC DIVISIONS

Rutgers, The State University of New Jersey, provides educational and research services throughout the state on campuses located in Camden, Newark, and New Brunswick. The principal university center is located in New Brunswick, where Rutgers originated two centuries ago.

Camden

Camden offers programs at three undergraduate colleges and at five graduate schools. With an enrollment of 5,000 students, it offers exceptional educational opportunities in addition to providing the advantages and resources associated with a major state university.

Faculty of Arts and Sciences–Camden

Margaret Marsh, Ph.D., Dean

Established in 1983 as a result of academic reorganization of the Camden campus, the Faculty of Arts and Sciences–Camden offers academic programs for undergraduate and graduate work in twenty-three arts and sciences disciplines and in a variety of interdisciplinary areas.

School of Business–Camden

Milton Leontiades, Ph.D., Dean

Established in 1988, the School of Business–Camden sets major requirements and teaches all courses leading to the Bachelor of Science degree in the professional areas of accounting and management. The School of Business also sets the major requirements and teaches all courses leading to a Master of Business Administration degree.

Camden College of Arts and Sciences

Margaret Marsh, Ph.D., Dean

A coeducational, liberal arts college, CCAS is the successor institution to the College of South Jersey, which was established in 1927 and became part of the state university in 1950.

University College–Camden

Margaret Marsh, Ph.D., Dean

University College–Camden is an evening college of liberal arts and professional studies serving part-time students since 1950.

Graduate School–Camden

Margaret Marsh, Ph.D., Dean

Graduate programs in the liberal arts were started in Camden in 1971 under the jurisdiction of the Graduate School–New Brunswick. The Graduate School–Camden was established as an autonomous unit in 1981.

School of Law–Camden

Rayman L. Solomon, J.D., Ph.D., Dean

Founded in 1926, the School of Law–Camden joined the university in 1950 as the South Jersey division of the School of Law–Newark. It became an independent unit of the university in 1967. The law school offers a curriculum leading to the degree of Juris Doctor, including advanced study in special areas.

Summer Session–Camden

Thomas Venables, Ed.D.

The Summer Session, begun in 1913 and established as a division of the university in 1960, offers a wide variety of graduate and undergraduate courses during three sessions in the summer months.

Newark

Newark offers programs at three undergraduate colleges and at four graduate schools. With an enrollment of approximately 10,000 students, it offers strong academic programs, excellent facilities, and an outstanding faculty.

Faculty of Arts and Sciences–Newark

Steven J. Diner, Ph.D., Dean

The Faculty of Arts and Sciences–Newark was established in 1985 to expand and strengthen the instructional program for undergraduate students at the Newark campus. The combined faculties of Newark College of Arts and Sciences and University College–Newark offer courses and academic programs in more than sixty subject areas.

Newark College of Arts and Sciences

Steven J. Diner, Ph.D., Dean

Founded in 1930 as Dana College, this undergraduate, coeducational, liberal arts college became part of Rutgers when the University of Newark was integrated into the state university in 1946.

College of Nursing

Hurdis Margaret Ann Griffith, Ph.D., Dean

The College of Nursing was established in 1956 as an expansion of the university's offerings in the former School of Nursing of the Newark College of Arts and Sciences. Its graduate program is conducted through the Graduate School–Newark.

University College–Newark

Steven J. Diner, Ph.D., Dean

University College–Newark is an evening and weekend college of liberal arts and professional studies serving part-time students since 1934. Within the context of the liberal arts tradition, University College students are offered a full range of courses and curricula, including programs in business and preparation for the professions leading to the degrees of Bachelor of Arts and Bachelor of Science.

Faculty of Management

Howard Tuckman, Ph.D., Dean

Established in 1993, the Faculty of Management encompasses the Graduate School of Management and the School of Management. The School of Management is an upper-division undergraduate school, founded in 1993, that offers the Bachelor of Science degree jointly with either the Newark College of Arts and Sciences or University College–Newark. Degree programs are available in accounting, finance, management, and marketing. The Graduate School of Management, founded in 1929 as the Seth Boyden School of Business and incorporated into Rutgers in 1946, offers three programs. Two of these programs, management and professional accounting, lead to the Master of Business Administration degree. The third program offers the Ph.D. degree in management jointly with the Graduate School–Newark and the New Jersey Institute of Technology.

Graduate School–Newark

Norman Samuels, Ph.D., Dean

The Graduate School–Newark was established as a separate instructional division of the university with degree-granting authority in 1976.

School of Criminal Justice

Leslie W. Kennedy, Ph.D., Dean

The School of Criminal Justice, which opened in 1974, offers a graduate program that provides students with a sound foundation for work in teaching, research, or criminal justice management. The Master of Arts degree is offered through the school, and the Ph.D. degree is offered in conjunction with the Graduate School–Newark.

School of Law–Newark

Stuart L. Deutsch, J.D., Dean

The university's graduate programs in law originated in other institutions. The New Jersey School of Law, founded in 1908, and the Mercer Beasley School of Law, founded in 1926, merged in 1936 to become the University of Newark School of Law, which became part of Rutgers in 1946.

Summer Session–Newark

The Summer Session, begun in 1913 and established as a division of the university in 1960, offers a wide variety of graduate and undergraduate courses during three sessions in the summer months.

New Brunswick

The New Brunswick campus is the largest and most diversified of the university's three campuses with 16 academic units, 1,800 faculty, and 33,000 students enrolled in undergraduate and graduate programs.

Faculty of Arts and Sciences–New Brunswick

Richard S. Falk, Ph.D., Acting Dean

Established in 1981 as a result of academic reorganization of the New Brunswick campus, the Faculty of Arts and Sciences–New Brunswick teaches all arts and science courses for undergraduate and graduate students in degree-granting units and sets the major requirements for all arts and science majors. Organized into disciplines and departments, it offers forty-four undergraduate major programs and twenty-nine graduate programs, which are administered by the Graduate School–New Brunswick.

Douglass College

Barbara Shailor, Ph.D., Dean

Founded in 1918 as the New Jersey College for Women, Douglass is the largest women's college in the nation. While maintaining rigorous standards of instruction in the fundamental disciplines of the liberal arts, Douglass supports and develops programs which link major courses of study to future careers. The college also implements special programs as well as independent activities designed to help women students develop the qualities required for achievement in any field of endeavor.

Livingston College

Arnold Hyndman, Ph.D., Dean

Livingston College opened in 1969 as a coeducational institution dedicated to serving a diverse student body reflecting the racial, ethnic, and socioeconomic composition of today's society. As a college of the liberal arts and professions, Livingston is committed to a multidisciplinary program that brings together a diverse group of students, faculty, and staff in a cosmopolitan community dedicated to learning.

Rutgers College

Carl Kirschner, Ph.D., Dean

Rutgers College was chartered in 1766 and is the original nucleus around which the university developed. Formerly an undergraduate college for men, it is now coeducational. Dedicated to the promotion of excellence in undergraduate education, Rutgers College provides its students with clear guidelines in the pursuit of a liberal arts education.

University College–New Brunswick
Emmet A. Dennis, Ph.D., Dean

University College–New Brunswick is an evening college of liberal arts and professional studies serving part-time students since 1934. Within the context of the liberal arts tradition, University College–New Brunswick students are offered a full range of courses and curricula, including programs in business and preparation for the professions leading to the degrees of Bachelor of Arts and Bachelor of Science.

Cook College
Bruce C. Carlton, Ph.D., Dean

A coeducational and residential college, Cook offers undergraduate programs in various applied disciplines with emphasis on environmental, agricultural, food, and marine sciences. Formerly the College of Agriculture and later the College of Agriculture and Environmental Science, Cook College adopted its present name in 1973. Graduate programs are offered through the Graduate School–New Brunswick.

College of Pharmacy
John L. Colaizzi, Ph.D., Dean

First organized in 1892 and incorporated into the state university in 1927, the College of Pharmacy offers a five-year professional program leading to the Bachelor of Science degree and a graduate program leading to the Pharm.D. degree. Other graduate programs leading to advanced degrees through the Graduate School–New Brunswick also are available. In addition, the college sponsors an extension program for the benefit of practicing pharmacists throughout the state.

Mason Gross School of the Arts
George B. Stauffer, Ph.D., Dean

This branch of Rutgers opened in July 1976. The school grants both undergraduate and graduate degrees. Formed to provide an education in the arts of the highest professional caliber, the school offers an M.F.A. degree in visual arts and theater arts; D.M.A., A.Dpl., M.M., and B.Mus. degrees in music; and a B.F.A. degree in visual arts, dance, and theater arts.

School of Business–New Brunswick
Howard Tuckman, Ph.D., Dean

Approved by the New Jersey Department of Higher Education in 1986, the School of Business–New Brunswick offers both undergraduate and graduate degrees. On the undergraduate level, it is a two-year, upper-division school offering programs in accounting, finance, management, and marketing. The school admits students from Douglass, Livingston, Rutgers, and University colleges in their junior year. The Bachelor of Science degree is jointly awarded by the School of Business–New Brunswick and the undergraduate college. The school's graduate program offers the Master of Accounting degree.

School of Communication, Information and Library Studies
Gustav Friedrich, Ph.D., Dean

This school was formed in 1982 by a merger of two schools to provide academic programs that focus on various facets of communication and information science. The school offers undergraduate programs of study in communication, and journalism and mass media. Students are admitted to the school in their junior year from the five residential undergraduate colleges in New Brunswick: Cook, Douglass, Livingston, Rutgers, and University colleges. Bachelor of Arts degrees are awarded jointly by the School of Communication, Information and Library Studies and the undergraduate college. At the graduate level, programs are offered that lead to the degree of Master of Library Service, the Master of Communication and Information Studies, and, jointly with the Graduate School–New Brunswick, the Doctor of Philosophy degree. Courses for in-service librarians also are provided.

School of Engineering
Michael T. Klein, Sc.D., Dean

Instruction in engineering began at Rutgers in 1864, when New Jersey designated Rutgers College to be the State College for the Benefit of Agriculture and Mechanic Arts. The College of Engineering became a separate unit in 1914, and was renamed the School of Engineering in 1999. The school is dedicated to the sound technical and general education of the student. It offers a Bachelor of Science degree in seven disciplines as well as a curriculum in applied sciences. Its graduate programs are conducted through the Graduate School–New Brunswick.

Edward J. Bloustein School of Planning and Public Policy
James W. Hughes, Ph.D., Dean

Founded in 1992, the Edward J. Bloustein School of Planning and Public Policy provides focus for all of Rutgers' programs of instruction, research, and service in planning and public policy. The school offers undergraduate programs in urban studies and public health, each leading to the baccalaureate degree. On the graduate level, the school confers Master of City and Regional Planning, Master of City and Regional Studies, Master of Public Affairs and Politics, Master of Public Policy, Master of Public Health, and Doctor of Public Health degrees; the latter two degrees are offered jointly with the University of Medicine and Dentistry of New Jersey–School of Public Health. A dual-degree program in public health and applied psychology leading to the Master of Public Health and Doctor of Psychology degrees is offered with the Graduate School of Applied and Professional Psychology. A program also is offered that leads to the Doctor of Philosophy degree in urban planning and policy development; this degree is conferred by the Graduate School–New Brunswick. In addition, the school offers joint-degree programs with Rutgers' two law schools, with the Graduate School of Management, and with the Graduate School–New Brunswick.

School of Management and Labor Relations
Barbara A. Lee, Ph.D., J.D., Dean

The School of Management and Labor Relations, formed in 1994, provides undergraduate instruction in labor studies and employment relations. At the graduate level, programs are offered that lead to the degrees of Master of Science in Human Resource Management, Master of Arts in Labor and Employment Relations, and Doctor of Philosophy in Industrial Relations and Human Resources.

Graduate School–New Brunswick
Richard S. Falk, Ph.D., Acting Dean

Graduate programs in the arts and sciences have been offered since 1876. The Graduate School–New Brunswick awards advanced degrees in more than sixty disciplines and is responsible for all Doctor of Philosophy degrees at Rutgers–New Brunswick. The faculty is drawn from virtually all academic divisions of the university.

Graduate School of Applied and Professional Psychology
Sandra L. Harris, Ph.D., Dean

The GSAPP was established in 1974 to train direct-service psychologists who have a special commitment to community involvement. It offers the Doctor of Psychology (Psy.D.) degree in professional psychology with specializations in the areas of clinical psychology, school psychology, and organizational psychology. The GSAPP also awards the Master of Psychology (Psy.M.) degree en passant to the doctorate; the Psy.M. is not offered as a terminal degree.

Graduate School of Education
Louise C. Wilkinson, Ed.D., Dean

Courses in education were first offered by Rutgers College in the late nineteenth century. A separate school offering its own curricula was organized in 1924. The GSE offers programs leading to the degrees of Master of Education, Specialist in Education, and Doctor of Education.

School of Social Work
Mary E. Davidson, Ph.D., Dean

Established in 1954 to prepare students for professional social work practice, the SSW offers a two-year graduate curriculum leading to the Master of Social Work degree. Jointly with the Graduate School–New Brunswick, it offers a program leading to the Doctor of Philosophy degree, and its faculty also teaches an undergraduate social work program.

Summer Session–New Brunswick
Thomas A. Kujawski, Ed.M.

The Summer Session, begun in 1913 and established as a division of the university in 1960, offers a wide variety of graduate and undergraduate courses during three sessions in the summer months.

ACADEMIC CENTERS, BUREAUS, AND INSTITUTES

Advanced Food Technology, Center for. Nabisco Institute for Advanced Food Technology, Cook Campus

Advanced Information Processing, Center for. CoRE Building, Busch Campus

Agricultural Experiment Station, New Jersey. Martin Hall, Cook Campus

Alcohol Studies, Center of. Smithers Hall, Busch Campus

American Woman and Politics, Center for the. Wood Lawn, Douglass Campus

Art Museum, Jane Voorhees Zimmerli. College Avenue Campus

Biological Research, Bureau of. Nelson Biology Laboratories, Busch Campus

Biostatistics, Institute for. Hill Center, Busch Campus

Biotechnology Center for Agriculture and the Environment. Cook Campus

Ceramic Research, Malcolm G. McLaren Center for. 607 Taylor Road, Busch Campus

Coastal and Environmental Studies, Center for. Doolittle Hall, Busch Campus

Computer Science Research, Laboratory for. Hill Center, Busch Campus

Controlled Drug-Delivery Research Center. Pharmacy Building, Busch Campus

Crime Prevention Studies, Center for. S.I. Newhouse Center for Law and Justice, Newark Campus

Criminological Research, Institute for. Lucy Stone Hall, Livingston Campus

Critical Analysis of Contemporary Culture, Center for the. 8 Bishop Place, College Avenue Campus

Discrete Mathematics and Theoretical Computer Science, Center for. CoRE Building, Busch Campus

Eagleton Institute of Politics. Wood Lawn, Douglass Campus

Economic Research, Bureau of. New Jersey Hall, College Avenue Campus

Edison Papers, Thomas A. 16 Seminary Place, College Avenue Campus

Engineered Materials, Institute for. Engineering Building, Busch Campus

Engineering Research, Bureau of. Engineering Building, Busch Campus

Fiber Optic Materials Research Program. 607 Taylor Road, Busch Campus

Fisheries and Aquaculture Technology Extension Center. Martin Hall, Cook Campus

Government Services, Center for. Edward J. Bloustein School of Planning and Public Policy, 33 Livingston Avenue, College Avenue Campus

Health, Health Care Policy, and Aging Research, Institute for. 30 College Avenue, College Avenue Campus

Historical Analysis, Rutgers Center for. 88 College Avenue, College Avenue Campus

Human Evolutionary Studies, Center for. 131 George Street, College Avenue Campus

International Business Education, Center for. Janice H. Levin Building, Livingston Campus

International Conflict Resolution and Peace Studies, Center for. Hickman Hall, Douglass Campus

International Faculty and Student Services, Center for. 180 College Avenue, College Avenue Campus

Jazz Studies, Institute of. Dana Library, Newark Campus

Jewish Life, Center for the Study of. 12 College Avenue, College Avenue Campus

Journalism Resources Institute. 185 College Avenue, College Avenue Campus

Marine and Coastal Sciences, Institute of. 71 Dudley Road, Cook Campus

Materials Synthesis, Center for. Engineering Building, Busch Campus

Mathematical Sciences Research, Center for. Hill Center, Busch Campus

Mathematics, Science, and Computer Education, Center for. Science and Engineering Resource Center, Busch Campus

Molecular and Behavioral Neuroscience, Center for. Aidekman Center, Newark Campus

Negotiation and Conflict Resolution, Center for. Edward J. Bloustein School of Planning and Public Policy, 33 Livingston Avenue, College Avenue Campus

Neighborhood and Brownfields Redevelopment, National Center for. Edward J. Bloustein School of Planning and Public Policy, 33 Livingston Avenue, College Avenue Campus

Operations Research, Center for. Hill Center, Busch Campus

Packaging Science and Engineering, Center for. Engineering Building, Busch Campus

Physics Research, Bureau of. Serin Physics Laboratories, Busch Campus

Rutgers Cooperative Extension. Martin Hall, Cook Campus

Surface Modification, Laboratory for. Serin Physics Laboratories, Busch Campus

Transportation Center, Alan M. Voorhees. Edward J. Bloustein School of Planning and Public Policy, 33 Livingston Avenue, College Avenue Campus

Urban Policy Research, Center for. 33 Livingston Avenue, College Avenue Campus

Waksman Institute of Microbiology. 190 Frelinghuysen Road, Busch Campus

Walt Whitman Center for the Culture and Politics of Democracy. Hickman Hall, Douglass Campus

Wireless Information Network Laboratory. Electrical Engineering Building, Busch Campus

Women, Institute for Research on. 160 Ryders Lane, Douglass Campus

Women's Leadership, Institute for. 162 Ryders Lane, Douglass Campus

Workforce Development, John J. Heldrich Center for. Edward J. Bloustein School of Planning and Public Policy, 33 Livingston Avenue, College Avenue Campus

Centers Operated Jointly

Biotechnology and Medicine, Center for Advanced.

Environmental and Occupational Health Sciences Institute.

Hazardous Substance Management Research Center.

UNIVERSITY LIBRARY SYSTEM

Alcohol Studies Library. Smithers Hall, Busch Campus

Annex. Annex Building, Busch Campus

Archibald Stevens Alexander Library. 169 College Avenue, College Avenue Campus

Art Library. Hamilton Street, College Avenue Campus

Bailey B. Pepper Entomology Library. John B. Smith Hall, Georges Road and Jones Street, Cook Campus

Blanche and Irving Laurie Music Library. Douglass Library, Chapel Drive and George Street, Douglass Campus

Chemistry Library. Wright Chemistry Laboratory Building, Busch Campus

Chrysler Herbarium Library. Nelson Biology Laboratories, Busch Campus

Criminal Justice Library. S.I. Newhouse Center, 15 Washington Street, Newark Campus

East Asian Library. Alexander Library, College Avenue Campus

Institute of Jazz Studies Library. Bradley Hall, Newark Campus

John Cotton Dana Library. 185 University Avenue, Newark Campus

Kilmer Area Library. Avenue E, Livingston Campus

Library of Science and Medicine. Bevier Road, Busch Campus

Mabel Smith Douglass Library. Chapel Drive and George Street, Douglass Campus

Mathematical Sciences Library. Hill Center, Busch Campus

Media Services. Kilmer Area Library, Livingston Campus

Paul Robeson Library. 300 North Fourth Street, Camden Campus

Physics Library. Serin Physics Laboratories, Busch Campus

School of Law–Camden Library. Fifth and Penn Streets, Camden Campus

School of Law–Newark Library. S.I. Newhouse Center, Washington Street, Newark Campus

School of Management and Labor Relations Library. Ryders Lane, Cook Campus

SERC Reading Room. Science and Engineering Resource Center, Frelinghuysen Road, Busch Campus

Special Collections and University Archives. Alexander Library, College Avenue Campus

Stephen and Lucy Chang Science Library. Foran Hall, Cook Campus

CAMDEN CAMPUS

TRAVEL DIRECTIONS TO RUTGERS–CAMDEN

From the North: New Jersey Turnpike to Exit 4; proceed on Route 73 North for approximately one mile to Route 38 West; or Route 295 South to Route 38 West exit at Moorestown. Route 38 West will merge with Route 30 West. Proceed on Route 30 West for approximately one mile to where the road forks. Take the right fork marked "Camden Business District–Rutgers University. Least Exit Before Toll." Continue straight ahead to Seventh Street, or the fifth traffic light.

From the South: Route 295 North to the North–South Freeway (Route 42). Follow signs to Camden, exiting at Route 676. Proceed on Route 676 to Exit 5B marked "Camden Business District–Rutgers University. Last Exit Before Toll." At the first traffic light, turn left onto Linden Street; continue one block to Seventh Street, or the next traffic light.

From the Atlantic City Expressway: Pick up the North–South Freeway (Route 42). Follow signs to Camden, exiting at Route 676. Proceed on Route 676 to Exit 5B marked "Camden Business District–Rutgers University. Last Exit Before Toll." At the first traffic light, turn left onto Linden Street; continue one block to Seventh Street, or the next traffic light.

From Admiral Wilson Boulevard (Route 30 West): Proceed for approximately one mile from the Airport Circle where the road forks. Take the right fork marked "Camden Business District–Rutgers University. Last Exit Before Toll." Continue straight ahead to Seventh Street, or the fifth traffic light.

From the Benjamin Franklin Bridge: Stay in right-hand lane and pass through the far right toll booth lane. Make a sharp right turn onto Penn Street. Proceed one block to stop sign. See campus straight ahead with the law school to your left.

From the Walt Whitman Bridge: Take the Camden/Gloucester City exit. Proceed in left lane about 1,000 feet to Camden exit; turn left and continue on Route 676 to Exit 5B marked "Camden Business District–Rutgers University. Last Exit Before Toll." At the first traffic light, turn left onto Linden Street; continue one block to Seventh Street, or the next traffic light.

From the Patco High-Speed Line: Exit at Camden City Hall. Walk north on Fifth Street for two blocks to the Camden campus. Please note: the Camden City Hall stop is not open on Saturdays. Get off at the Transportation Center (Broadway stop). Once above ground, proceed north on Broadway (toward Benjamin Franklin Bridge) to Cooper Street; make a left on Cooper to Fifth Street, right on Fifth Street to campus. The law school is on your left.

Index

Note: The following abbreviations are used in this index.

CCAS: Camden College of Arts and Sciences
SB: School of Business–Camden
UC: University College–Camden

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