

PROGRAMS OF STUDY FOR LIBERAL ARTS STUDENTS



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Faculties Offering the Programs

Note: The faculties and programs of the degree-granting professional schools (Cook College, Mason Gross School of the Arts, Ernest Mario School of Pharmacy, Rutgers Business School: Undergraduate–New Brunswick, School of Communication, Information and Library Studies, School of Engineering, Edward J. Bloustein School of Planning and Public Policy, and the School of Management and Labor Relations) appear in those colleges' separate sections later in this catalog.

The following faculties offer most of the programs of study for liberal arts students outlined in this section.

FACULTY OF ARTS AND SCIENCES

The Faculty of Arts and Sciences offers undergraduate and graduate programs in a wide variety of arts and sciences disciplines and in numerous interdisciplinary fields. It is the largest academic unit in the university, comprising more than one thousand faculty members.

Holly M. Smith, *Executive Dean*
Douglas Blair, *Executive Vice Dean*

Area Deans

Michael Beals, *Educational Initiatives*
Kenneth J. Breslauer, *Life Sciences*
David Madigan, *Physical and Mathematical Sciences*
Barry V. Qualls, *Humanities*
Edward Rhodes, *Social and Behavioral Sciences*

Seth A. Gopin, *Associate Dean and Director of Global Programs*
Barbara A. Lemanski, *Associate Dean for Policy and Personnel*

Department

Africana Studies
American Studies
Anthropology
Art History
Asian Languages and Cultures
Cell Biology and Neuroscience
Chemistry and Chemical Biology
Classics
Computer Science
Economics
English
Exercise Science and Sport Studies
French
Genetics
Geography
Geological Sciences
Germanic, Russian, and East European Languages and Literatures
History
Italian
Jewish Studies
Linguistics
Mathematics
Molecular Biology and Biochemistry
Philosophy
Physics and Astronomy
Political Science
Psychology

Chairperson

Kim Butler
Ann Fabian
Frances Mascia-Lees
Tod Marder
Ching-I Tu
Wise Young, Acting
Roger Jones
Corey Brennan
Haym Hirsh
Barry Sopher
Richard E. Miller
David Feigley
Richard Lockwood
Jay Tischfield
J. Kenneth Mitchell
Kenneth Miller

William Donahue
Ziva Galili
Laura S. White
Gary Rendsburg
Mark Baker
Richard S. Falk
Vincent Pirrotta
Brian McLaughlin
Charles Glashauser
Richard Wilson
Louis Matzel

Puerto Rican and Hispanic Caribbean Studies
Religion
Sociology
Spanish and Portuguese
Statistics
Women's and Gender Studies

Asela Leguna, Acting
Hiroshi Obayashi
Ellen Idler
Thomas M. Stephens
Arthur Cohen, Acting
Joanna Regulska

MASON GROSS SCHOOL OF THE ARTS

The Mason Gross School of the Arts offers both liberal arts and professional undergraduate programs, as well as professional graduate programs, in the arts. The school's programs for liberal arts students appear in this section. See the school's separate section later in this catalog for undergraduate professional program information.

George B. Stauffer, *Dean*
Dennis Benson, *Associate Dean*
Scott Cagenello, *Dean of Students*
Andrianni Vallas Viscariello, *Director of Development*

Department

Dance
Music
Theater Arts
Visual Arts

Chairperson

Patricia Mayer
Rufus Hallmark
Israel Hicks
Gary Kuehn

SCHOOL OF SOCIAL WORK

The School of Social Work offers an undergraduate major program in social work in addition to its graduate offerings.

Mary Edna Davidson, *Dean*
Raymond Sanchez Mayers, *Associate Dean and Director, Baccalaureate Social Work Program*
DuWayne Battle, *Assistant Director, Baccalaureate Social Work Program*
Allison Zippay, *Associate Dean for Curriculum*
Arlene Hunter, *Assistant Dean and Director of Admissions and Student Services*

GRADUATE SCHOOL OF EDUCATION

The Graduate School of Education offers teacher certification programs for undergraduates in New Brunswick / Piscataway in addition to its graduate offerings.

Richard De Lisi, *Dean*
Warren Crown, *Associate Dean for Academic Affairs*
Paul Elwood, *Associate Dean for Administration and Finance*
Amy Wollock, *Director of Teacher Education and Certification Officer*

SCHOOL OF MANAGEMENT AND LABOR RELATIONS

The School of Management and Labor Relations offers undergraduate major and minor programs in labor education.

Paula A. Voos, *Chairperson of Department of Labor Studies and Employment Relations*
David Bensman, *Director of Undergraduate Major in Labor Studies and Employment Relations*
Adrienne Eaton, *Extension Director*
Amy Marchitto, *Assistant to the Director of Undergraduate Major in Labor Studies and Employment Relations*

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 four liberal arts colleges at the university in New Brunswick/Piscataway: Douglass College, Livingston College, Rutgers College, and University College–New Brunswick. However, not all programs are offered at all colleges. (In addition, a few of the major programs described here are open to Cook College students.) Therefore, it is important to consult the college sections of this catalog for lists of the majors available to students at each of these schools:

Douglass College:	Page 215
Livingston College:	Page 227
Rutgers College:	Page 243
University College:	Page 255
Cook College:	Page 269

Individual undergraduate courses offered at Rutgers in New Brunswick/Piscataway are, in general, open to students at all the undergraduate colleges, subject to prerequisite restrictions and space limitations.

COURSE NOTATION INFORMATION

Changes in Course Numbers and/or Titles

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 already may have taken. Credit will not be given twice for the same course, despite a change in number and/or title.

Cross-Listed Courses

Some courses are cross-listed in more than one department. Students should note that a cross-listed course is the same course listed under two or more subject indexes.

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 (standing for a faculty or a school), the next three digits are the subject code, and the final three digits are the course code.

Administrative Codes

The following administrative codes are used in this catalog and are positioned as the first two digits in all course numbers.

- 01 Faculty of Arts and Sciences
- 02 Livingston College
- 03 Office of the Provost

- 04 School of Communication, Information and Library Studies (undergraduate)
- 05 Graduate School of Education
- 06 Douglass College
- 07 Mason Gross School of the Arts (undergraduate)
- 09 School of Social Work (undergraduate)
- 10 Edward J. Bloustein School of Planning and Public Policy
- 11 Cook College
- 12 Rutgers College
- 14 School of Engineering
- 16 Graduate School–New Brunswick
- 21 Newark College of Arts and Sciences
- 30 Ernest Mario School of Pharmacy
- 33 Rutgers Business School: Undergraduate–New Brunswick
- 37 School of Management and Labor Relations
- 50 Camden College of Arts and Sciences
- 61 University College–New Brunswick

Subject Codes

A subject code comprises the third through fifth digits in all course numbers and indicates the subject matter of the course. Courses with the following subject codes are listed in this section of the catalog. (This list *does not* constitute a list of majors. See pages v–vi for a list of majors. This list also *does not* constitute a list of all subjects offered at the university. See the individual professional-school sections of this catalog for further subject and course listings.)

- 013 African Languages and Literatures
- 014 Africana Studies
- 016 African Area Studies
- 018 Aging
- 050 American Studies
- 070 Anthropology
- 078 Armenian
- 080 Art, Visual
- 081 Art
- 082 Art History
- 090 Arts and Science (college courses)
- 098 Asian Studies
- 105 Astrophysics
- 115 Biochemistry
- 119 Biological Sciences
- 145 Catalan
- 146 Cell Biology and Neuroscience
- 160 Chemistry
- 165 Chinese
- 175 Cinema Studies
- 185 Cognitive Science
- 190 Classics
- 195 Comparative Literature
- 198 Computer Science
- 202 Criminal Justice
- 203 Dance
- 206 Dance
- 214 East Asian Languages and Area Studies
- 220 Economics
- 300 Education
- 350 English
- 351 English: Topics
- 353 English: Literary Theory
- 354 English: Film Studies
- 355 English: Composition and Writing
- 360 European Studies
- 377 Exercise Science and Sport Studies
- 420 French
- 447 Genetics

PROGRAMS, FACULTY, AND COURSES

450 Geography
 460 Geological Sciences
 470 German
 489 Greek, Modern
 490 Greek, Ancient
 505 Hindi
 506 History: General/Comparative
 508 History: African, Asian, and Latin American
 510 History: European
 512 History: American
 513 History/French
 514 History/Political Science
 535 Hungarian
 556 Interdisciplinary Studies, FAS
 560 Italian
 563 Jewish Studies
 565 Japanese
 567 Journalism and Media Studies
 574 Korean
 575 Labor Studies
 578 Labor Studies and Employment Relations
 580 Latin
 590 Latin American Studies
 615 Linguistics
 628 Marine Sciences
 640 Mathematics
 660 Medical Technology
 667 Medieval Studies
 685 Middle Eastern Studies
 690 Military Education, Air Force
 691 Military Education, Army
 694 Molecular Biology and Biochemistry
 700 Music
 701 Music, Applied
 711 Operations Research
 730 Philosophy
 750 Physics
 787 Polish
 790 Political Science
 810 Portuguese
 830 Psychology
 836 Puerto Rican and Hispanic Caribbean Studies

840 Religion
 860 Russian
 910 Social Work
 920 Sociology
 925 South Asian Studies
 940 Spanish
 959 Study Abroad
 960 Statistics
 965 Theater Arts
 966 Theater Arts
 967 Ukrainian
 988 Women's and Gender Studies

Course Codes

The course code comprises the sixth, seventh, and eighth digits in all course numbers. Course codes from 100 to 299 indicate 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 courses codes separated by a comma indicate that each term course may be taken independently of the other (example: 01:350:219,220). Two course codes separated by a hyphen indicate that satisfactory completion of the first term course is a prerequisite to the second term (example: 01:160:315-316); the first term may be taken for credit without taking the second, except if a statement is added to indicate that both term courses must be completed in order to receive credit.

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.

Unless otherwise indicated, a course normally meets for a number of lecture hours equal to the number of credits to be earned. Special hours or modes of class, other than lecture, are usually indicated in italics below the course title.

ACCOUNTING 010

(See Rutgers Business School:
Undergraduate–New Brunswick section)

AFRICAN AREA STUDIES 016

Faculty of Arts and Sciences

Web Site: <http://ruafrica.rutgers.edu/minor.htm>

Curriculum Chair: Arthur Powell, *Academic Foundations; M.Sc., Michigan*

Center for African Studies Members:

Akinbiyi Akinlabi, *Linguistics; Ph.D., Ibadan (Nigeria)*
 Ousseina Alidou, *Africana Studies (Hausa); Ph.D., Indiana*
 Albert Ayeni, *Collaborative International Programs; Ph.D., Cornell*
 César Braga-Pinto, *Spanish and Portuguese; Ph.D., California (Berkeley)*
 Sarah Brett-Smith, *Art History; Ph.D., Yale*
 Carolyn Brown, *History; Ph.D., Columbia*
 Abena Busia, *English; D.Phil., Oxford*
 Barbara J. Callaway, *Political Science; Ph.D., Boston*
 Barbara Cooper, *History; Ph.D., Boston*
 Lee Cronk, *History; Ph.D., Northwestern*
 Emmet Dennis, *Cell Biology and Neuroscience; Ph.D., Connecticut*
 Salah El-Shakhs, *Urban Planning; Ph.D., Harvard*
 Lillian Farhat, *Africana Studies (Arabic); A.B.D., Rutgers*
 John Harris, *Anthropology; Ph.D., California (Berkeley)*
 Angelique Haugerud, *Anthropology; Ph.D., Northwestern*
 Dorothy L. Hodgson, *Anthropology; Ph.D., Michigan*
 Allen Howard, *History; Ph.D., Wisconsin*
 David McDermott Hughes, *Human Ecology; Ph.D., California (Berkeley)*
 Walton Johnson, *Africana Studies; Ph.D., London*
 Yeon-Soo Kim, *Spanish and Portuguese; Ph.D., Yale*
 Donald Krueckeberg, *Urban Planning; Ph.D., Pennsylvania*
 Renée Larrier, *French; Ph.D., Columbia*
 Barbara Lewis, *Political Science; Ph.D., Northwestern*
 Julie Livingston, *History; Ph.D., Emory*
 Edouard Mafoua, *Agricultural Economics; Ph.D., Illinois*
 Susan Martin-Marquez, *Spanish and Portuguese; Ph.D., Pennsylvania*
 Bonnie J. McCay, *Anthropology and Human Ecology; Ph.D., Columbia*
 Arthur Powell, *Academic Foundations; M.Sc., Michigan*
 Edward Ramsamy, *Africana Studies; Ph.D., Rutgers*
 Mark Robson, *ENOH (UMDNJ); Ph.D., Rutgers*
 Phillip Rothwell, *Spanish and Portuguese; Ph.D., Cambridge*
 Richard Schroeder, *Geography; Ph.D., California (Berkeley)*
 Richard Serrano, *French; Ph.D., California (Berkeley)*
 D. Michael Shafer, *Political Science; Ph.D., Harvard*
 James Simon, *Plant Biology; Ph.D., Massachusetts*
 George Suliali, *Assistant Dean, Rutgers College; A.B.D., South Africa*
 Meredith Turshen, *Urban Studies; Ph.D., Sussex*

Minor Program

The curricular program in African area studies is designed to complement major degrees in the applied sciences, fine arts, humanities, social sciences, and professional schools. The field of African area studies emphasizes continental Africa and embraces all of the major regions of the continent. The interdisciplinary minor in African area studies requires a minimum of six courses (18 credits); students must earn a grade of C or better in all courses counted toward the minor. Students are expected to form a core concentration of three courses in one of the following fields: humanities, African languages, African literatures, social sciences, or humans in the environment. These courses and the three remaining electives are to be drawn from the approved course lists, applied learning opportunities, and study abroad programs described below. At least three courses must be at the 300 level or above, and at least three courses must be outside the student's major. (Rutgers College students must ensure that no more than one of the courses they use for the minor is also being applied to their

major.) No more than four courses may be taken in one concentration area. Students are expected to take at least 9 credits from the core concentration course fields at the New Brunswick/Piscataway campus. Students are strongly encouraged to take advantage of the language learning opportunities offered through the program while bearing in mind that it is not permissible to do the minor using language credits alone.

Applied Learning Opportunities

The curriculum in African area studies places a premium on courses with applied learning opportunities, including internships, honors courses, and independent study programs arranged through students' major departments. In keeping with this emphasis, the Center for African Studies currently sponsors a seminar that prepares students to participate in model African Union (AU) exercises held annually in Washington, D.C. The center also periodically cosponsors Africa-related internships organized through the United Nations in New York City. The appropriate number of credits for these learning experiences and their application toward distribution requirements will be determined in consultation with the curriculum chair.

Study Abroad

Students may apply toward the minor up to 9 credits earned in courses offered as part of a recognized Rutgers African study abroad program. Three programs currently exist that would qualify for these credits: the archaeological field school at Kobi Foora, Kenya; the CASE program in Pietermaritzburg, South Africa; and the Study Abroad Program at the University of Namibia, Windhoek. Additional information about these programs is available through the Rutgers Study Abroad.

Student Research Award

The Center for African Studies awards the Claude Ake Prize annually to the best undergraduate student paper in African studies.

Courses

1. Language and Literature

- 01:013:101-102 Elementary Hausa (4,4)
- 01:013:105-106 Elementary Swahili (4,4)
- 01:013:109-110 Elementary Zulu (4,4)
- 01:013:127-128 Elementary Arabic (4,4)
- 01:013:133-134 Elementary Yoruba (4,4)
- 01:013:209-210 Intermediate Zulu (4,4)
- 01:013:227-228 Intermediate Arabic (4,4)
- 01:013:231-232 Intermediate Hausa (4,4)
- 01:013:235-236 Intermediate Swahili (4,4)
- 01:013:237-238 Intermediate Yoruba (4,4)
- 01:013:301 African Linguistics (3)
- 01:013:309-310 Advanced Zulu (4,4)
- 01:013:327-328 Advanced Arabic (4,4)
- 01:013:335-336 Advanced Swahili (4,4)
- 01:013:337-338 Advanced Yoruba (4,4)

2. African Literatures

- 01:013:205 Introduction to African Literature in Translation (3)
- 01:014:360 Writers of Africa and the New World (3)

- 01:355:201 Research in the Disciplines (3)
- 01:420:409 Studies in Cultures of the Francophone World (3)
- 01:420:410 Sub-Saharan African Literature (3)
- 01:420:411 North African Literature (3)
- 01:420:413 Caribbean Literature (3)
- 01:810:241,242 The Portuguese-Speaking World: A Literary Introduction for English Speakers (3,3)
- 01:810:309 Africa and Portugal: An Introduction (3)
- 01:810:350 Literatures and Cultures of Lusophone Africa (3)
- 01:810:440 The Portuguese-Speaking World: Multiple Perspectives (3)
- 01:940:465 Spain in Africa / Africa in Spain: Cultural Representations and Historical Legacy (3)
- 3. Social Sciences
 - 01:014:212 Politics and Power in Modern Africa (3)
 - 01:014:330 Contemporary Issues in Southern Africa (3)
 - 01:014:371 African Development (3)
 - 01:014:376 Pan-African Movement (3)
 - 01:070:338 Anthropology of Africa (3)
 - 01:070:379 Gender and Power in Africa (3)
 - 01:202:312 Crimes against Humanity (3)
 - 01:355:201 Research in the Disciplines (3)
 - 01:450:338 Africa (3)
 - 01:790:250,251 Model African Union (1.5,1.5)
 - 01:790:314 Sub-Sahara African Politics (3)
- 4. Humanities
 - 01:013:311 African Folklore (3)
 - 01:082:250 Introduction to Oceanic, African, and Pre-Columbian Art (3)
 - 01:082:371 Arts of West Africa (3)
 - 01:082:376 Arts of Central Africa (3)
 - 01:082:420 African Architecture (3)
 - 01:355:201 Research in the Disciplines (3)
 - 01:508:220 Ancient Africa (3)
 - 01:508:222 Modern Africa (3)
 - 01:508:224 Women and Gender in African History (3)
 - 01:508:320 History of Southern Africa (3)
 - 01:508:322 West Africa (3)
 - 01:508:326 Islam in African History (3)
 - 01:508:420 African Labor History (3)
 - 01:508:422 African Cultural History (3)
 - 01:508:429 Research in African Historical Studies (3)
 - 01:840:332 African Religions (3)
 - 01:988:224 Women and Gender in African History (3)
 - 01:988:312 African Feminism (3)
- 5. Humans in the Environment
 - 01:070:326 Pleistocene Hominid Adaptations (3)
 - 01:070:412 Topics in African Prehistory and Paleoanthropology (3)
 - 01:070:426 South African Archaeology (3)
 - 01:146:328 Human Parasitology (3)
 - 01:355:201 Research in the Disciplines (3)
 - 11:373:381 Political Economy of Agricultural Development (3)

AFRICANA STUDIES (African Languages and Literatures 013, Africana Studies 014)

Department of Africana Studies, Faculty of Arts and Sciences

Web Site: <http://africanastudies.rutgers.edu>

Chairperson: Kim D. Butler

Director of African Languages and Literatures: Ousseina Alidou

Professors:

Walton R. Johnson, B.A., Oberlin College; M.A., Ph.D., London
 Ivan G. VanSertima, B.A., London; M.A., Rutgers; D.H.L., Sojourner-Douglass College; D.H.L., Medgar Evers College (CCNY)

Associate Professors:

Leonard L. Bethel, B.A., Lincoln (Pennsylvania); M.A., New Brunswick Theological Seminary; M.Div., Johnson C. Smith; Ed.D., Rutgers
 Kim D. Butler, B.A., Sarah Lawrence College; M.A., Howard; M.A., Ph.D., Johns Hopkins
 Gayle T. Tate, B.A., CUNY (City College); M.S., Columbia; M.A., New York; Ph.D., CUNY

Assistant Professors:

Ousseina Alidou, B.A., M.A., Universite de Niamey (Niger); Ph.D., Indiana
 Regina Jennings, B.A., M.A., Ph.D., Temple
 Edward Ramsamy, B.A. (Hons), Durban (South Africa); M.C.R.P., Ph.D., Rutgers

Lecturer:

Lillian Farhat, B.A., M.A., Rutgers

Major Requirements

A major in Africana studies consists of 11 term courses offered by the department of at least 3 credits each; students must earn a grade of C or better in all courses counted toward the major. These 11 courses comprise four compulsory core courses and seven elective courses and must include two term courses in one foreign language taught by the Department of Africana studies. Declared majors may petition the department to substitute another language relevant to their work in Africana Studies. Upon petition, students may substitute the two terms of a foreign language with two departmental electives, one of which must be at the 300 or 400 level. At least six of the courses counted toward the major must be at the 300 or 400 level. Students are encouraged to take courses in other disciplines that relate to their area of concentration or interest, and with departmental approval, may apply up to two of these courses toward the major.

The compulsory core courses are:

- 01:014:103 Introduction to Africana Studies (3)
- 01:014:203 or 204 The Black Experience in America (3)
- 01:014:233 Introduction to the Methodology of Africana Studies (3)
- 01:014:490 Seminar in Africana Studies (3)

Minor Requirements

The minor in Africana studies consists of six term courses offered by the department of at least 3 credits each, including 01:014:103 Introduction to Africana Studies, 01:014:203 or 204 The Black Experience in America, and 01:014:490 Seminar in Africana Studies. At least three of these courses must be at the 300 level or above. Students must earn a grade of C or better in all courses counted toward the minor. To complement the minor in Africana studies, the department recommends, but does not require, two terms of instruction in a foreign language taught by the Department of Africana Studies.

Departmental Honors Program

To qualify for departmental honors, an Africana studies major must have a cumulative grade-point average of 3.0 or better and a cumulative grade-point average of 3.4 or better in Africana studies. The department awards a Paul Robeson Africana Prize to students graduating with honors. In order to graduate with highest honors, a student must participate in the departmental honors project, or, upon petition and with the approval of the faculty, a student may participate in the Mabel Smith Douglass Honors Project, the Livingston College Paul Robeson Scholars Project, the Henry Rutgers Scholars Program, or the University College–New Brunswick Honors Program.

The Africana Studies Scholars Project

The department sponsors the Africana Studies Scholars Project, a two-term, 12-credit (01:014:497-498; 6,6) senior-year course for honors majors in the discipline. To be eligible, students must have a cumulative grade-point average of 3.0 or better and a cumulative grade-point average of 3.4 or better in Africana studies by the end of the junior year.

African Diaspora Field Study

The Department of Africana Studies sponsors a course 01:014:495 African Diaspora Field Study which allows students to study, firsthand, the cultures of the African diaspora through collaborations with foreign institutions and university study abroad programs.

Courses (013)

01:013:101-102. ELEMENTARY HAUSA (4,4)

Development of oral and written proficiency. Students exposed to, gain an appreciation for, and possibly identify with a number of African peoples and cultures.

01:013:105-106. ELEMENTARY SWAHILI (4,4)

Development of oral and written proficiency. Students exposed to, gain an appreciation for, and possibly identify with a number of African peoples and cultures.

01:013:109-110. ELEMENTARY ZULU (4,4)

Development of written and oral proficiency.

01:013:127-128. ELEMENTARY ARABIC (4,4)

Development of oral and written proficiency.

01:013:133-134. ELEMENTARY YORUBA (4,4)

Introduction to the standard Yoruba language and culture. Provides knowledge of the spoken and written language.

01:013:205. INTRODUCTION TO AFRICAN LITERATURE IN TRANSLATION (3)

Survey of contemporary creative writing by black Africans. Literary and nonliterary characteristics. Problems connected with the serious study and criticism of African literature.

01:013:209-210. INTERMEDIATE ZULU (4,4)

Prerequisite: 01:013:109-110.

Continued development of written and oral proficiency. Elementary literary material. Detailed explanation of the underlying linguistic structure of the language.

01:013:227-228. INTERMEDIATE ARABIC (4,4)

Continued development of oral and written proficiency. Elementary literary material. Detailed explanation of the underlying linguistic structures of the language.

01:013:231-232. INTERMEDIATE HAUSA (4,4)

Continued development of oral and written proficiency. Elementary literary material. Detailed explanation of the underlying linguistic structures of the language and continued exposure to the culture.

01:013:235-236. INTERMEDIATE SWAHILI (4,4)

Continued development of oral and written proficiency. Elementary literary material. Detailed explanation of the underlying linguistic structures of the language.

01:013:237-238. INTERMEDIATE YORUBA (4,4)

Prerequisite: 01:013:133-134.

Continued development of written and oral proficiency. Elementary literary material. Detailed explanation of the underlying linguistic structures of the language.

06:090:273,274. THE AFRICAN LANGUAGE EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Africana House. May not be used in satisfaction of major requirements. Courses may not be repeated.

Development of understanding of the linguistic map of Africa with consideration of language policies and their social and political implications.

01:013:301. AFRICAN LINGUISTICS (3)

Study of the genetic relationships of African languages and some of the phonological, morphological, and syntactic features of these languages.

01:013:309-310. ADVANCED ZULU (4,4)

Prerequisites: 01:013:109-110 and 209-210 or the group project abroad for isiZulu in South Africa.

Introduction to the major genres of Zulu oral and written literature. Development of speaking and listening fluency, and command of colloquial and idiomatic usage. Introduction to other Nguni languages and the four-language jargon spoken in Gauteng.

01:013:311. AFRICAN FOLKLORE (3)

Study of forms and problems of folklore in continental Africa and relationships to forms of folklore elsewhere in the African diaspora.

01:013:317,318. AFRICANA CULTURES TODAY (1.5,1.5)

Contemporary cultural, social, and political life in Africana countries, with emphasis on the daily experience.

01:013:322. INDEPENDENT STUDY (1-4)

Prerequisites: Language courses based on permission of instructor. Student must be in good academic standing.

01:013:327-328. ADVANCED ARABIC (3,3)

Prerequisites: 01:013:127-128 and 227-228; or permission of instructor.

Introduction to literary and popular forms of modern Arabic and to general aspects of Arab culture. Readings on contemporary themes by well-known authors; typical articles from journals and newspapers. Development of skills in translation, composition, and oral expression within the context of culturally relevant topics.

01:013:335-336. ADVANCED SWAHILI (4,4)

Prerequisite: 01:013:235-236.

Literary expressions as related to the written and spoken aspects of culture.

01:013:337-338. ADVANCED YORUBA (4,4)

Prerequisite: 01:013:237-238.

Literary expressions as related to the written and spoken aspects of culture.

01:013:437,438. TWENTIETH-CENTURY ARABIC LITERATURE (3,3)

Prerequisite: At least one prior course in literature (English or world) or one course in Middle Eastern studies. Credit not given for both these courses and 01:195:437,438 or 01:685:437,438.

Representative works of Arabic literature in translation, including poetry, the novel, the short story, and plays. Emphasis on how new literary trends reflect sociocultural change in the Arab world, including debates over tradition, gender relations, and cultural pluralism.

Courses (014)

01:014:103. INTRODUCTION TO AFRICANA STUDIES (3)

Interdisciplinary survey of the social, economic, political, and historical aspects of the black experience in America and abroad.

01:014:107. AFRICAN-AMERICAN FOLKLORE (3)

Introductory course on the forms and applications of African-American folklore.

01:014:130. AFRICAN-AMERICAN LITERATURE (3)

Contemporary African-American expressive literatures—poetry, critical essays, novels, films, folklores, plays—analyzed for cosmology, style, structure, and content.

01:014:132. BLACK EXPERIENCE AND FILM MEDIUM (3)

Critical evaluation of images of blacks in films. Screening of films.

01:014:140. INTRODUCTION TO AMERICAN CULTURES (1.5)

Credit not given for both this course and 01:512:140.

Develops an understanding of the historical, social, and political factors that distinguish the diverse cultures of present day America.

01:014:201. AFRICAN BELIEF SYSTEMS AND THE LATINO COMMUNITY (3)

Credit not given for both this course and 01:836:201.

Historical examination of ancestor worship, Santeria (Cuba), Vodun (Santa Domingo), Espiritismo (Puerto Rico), and other African-based belief systems. Formation from African to slave societies and use in contemporary period.

01:014:203,204. THE BLACK EXPERIENCE IN AMERICA (3,3)

Interdisciplinary examination of African-Americans within the context of American political economy, special conditions of oppression, responses to exploitation, and resultant social changes.

01:014:205. ISLAMIC CIVILIZATION (3)

Credit not given for both this course and 01:508:201.

Survey of Islamic societies from 7th-century Arabia to modern times. Religious, political, military, social, economic, and cultural institutions and organizational patterns.

01:014:206. THE BLACK WOMAN (3)

Credit not given for both this course and 01:988:206.

Role of black women in survival and evolution of the black race as presented in fictional and nonfictional literature.

01:014:208. THE SOCIOLOGY OF BLACK ECONOMIC DEVELOPMENT (3)

Socioeconomic, spatial, and political development of alternatives to minority or black capitalism within the local, regional, and national development strategies of the United States.

01:014:212. POLITICS AND POWER IN MODERN AFRICA (3)

Social and political changes in 20th-century Africa, with an emphasis on South Africa since 1950.

01:014:213. BLACKS IN HISTORY (3)

Roles played by Africans and people of African descent in world history. An African-centric approach to historical inquiry.

01:014:215. CONTEMPORARY ISSUES AND THEIR BACKGROUND (3)

Key controversial issues important to understanding the contemporary black experience. Primary focus on three basic dimensions: double-consciousness, decolonization and neocolonialism, and cultural control. Systematic conceptual analysis.

01:014:222. THE BLACK ELITE (3)

Emergence of a black elite; social relationships with the white community and the black masses.

01:014:223,224. INDEPENDENT STUDY (1-4,1-4)

Prerequisites: 01:014:103, a minimum of 9 credits in department or approved equivalent, and good academic standing. Faculty proctor required. Registration by permission only.

01:014:230. PSYCHOLOGY OF THE BLACK EXPERIENCE (3)

Evaluation of psychological principles, theories, and assessment techniques in relation to the personality and behavioral development of African Americans.

01:014:233. INTRODUCTION TO THE METHODOLOGY OF AFRICANA STUDIES (3)

Introduction to Africana studies through lectures, multidisciplinary approaches to the study of Africana materials, original research projects, and introduction to major archival resources.

01:014:240. THIRD-WORLD CREATIVE WRITING (3)

Third-world contemporary prose classics as models of creative expressions and as a basis for creative writing exercises, geared to meet individual aptitudes, needs, and interests.

01:014:255. HISTORY OF BLACK EDUCATION IN THE UNITED STATES (3)

Principles and policies underlying the educational process among blacks; social and political impact.

01:014:258. INTELLECTUAL THOUGHT IN THE AFRICAN DIASPORA (3)

Basic social and political ideas in the history of black ideology.

01:014:269. BLACK RELIGION (3)

Social, philosophical, historical, and sociopsychological understanding of black America's oldest and largest institution. Influence in economic, political, social, and spiritual life of the black community.

01:014:274. BLACK CIVILIZATIONS (3)

Introduction to ancient and medieval black African civilizations with emphasis on the political and religious thought and technological achievement of African empires.

01:014:276. BLACK SOCIAL AND POLITICAL DEVELOPMENT (3)

Survey of the recent trends regarding health, unemployment, poverty, economics, electoral politics, and international relations.

01:014:285. AFRICAN-AMERICAN NARRATIVE ANALYSIS (3)

Collection and analysis of African-American narrative material. Evaluation based on various analytical structures and approaches.

01:014:304. AFROMUSICOLOGY (3)

Various forms of African-American music: spiritual, gospel, blues, folk, and jazz. African and Western influences: role, development patterns, and function in sociocultural context.

01:014:306. THE BLACK WOMAN IN POLITICAL CONTEXT (3)

Takes political-historical approach from precolonial traditional African women to contemporary black feminism and liberation; emphasis on the black woman's distinct consciousness, family relationships, organizations, institutions, political activities, and revolutionary ideologies.

01:014:316. CARIBBEAN SOCIETY IN LITERATURE (3)

Introduction to the political, social, and historical life of the Caribbean (Jamaica, Trinidad, Barbados, Guyana, and St. Lucia) through the novels, poems, and essays of its writers.

01:014:317. BLACK PROFILES (3)

Portrayal of the movements and events of Africa and dispersion through studies of black leaders—their lives, works, and writings.

01:014:318. BIGOTRY, PREJUDICE, AND RACISM: PSYCHOLOGICAL FOUNDATIONS (3)

Basic conscious and unconscious psychological factors in racist behavior and attitudes. Evaluation of explanatory theories and empirical data as presented by contemporary psychiatrists and psychologists.

01:014:321. AFRICAN PRESENCE IN AMERICAN CULTURES (3)

Examination of African influence on black life and culture in the New World—on language, art, music, and cuisine.

01:014:323. SEMINAR IN THE PHILOSOPHY OF AFRICANA STUDIES (3)

Disciplinary problems involved in constructing a paradigm for the philosophy of the discipline.

01:014:330. CONTEMPORARY ISSUES IN SOUTHERN AFRICA (3)

Examines contemporary events in South Africa and Namibia within the neocolonial problems of the frontline states (Tanzania, Zimbabwe, Angola, Mozambique, and Botswana).

01:014:340. THIRD-WORLD WRITING AND CRITICISM (3)

Essays in literary criticism with third-world prose classics as basis for critiques. Study of the short story and exercises in short-story writing.

01:014:341,342. SUPERVISED COMMUNITY PLACEMENT (3,3)

Supervised study and experience in a black community of the United States, the Caribbean, South America, or Africa.

01:014:347. HEALTH ISSUES IN THE AFRICAN-AMERICAN COMMUNITY (3)

Health problems affecting black communities and their relevance to understanding black political, social, and psychological attitudes.

01:014:349. TOPICS IN AMERICAN POLITICS (3)

Prerequisite: Special permission. Credit not given for both this course and 01:790:349.

Special topics in American politics that vary with the instructor.

01:014:350. AFRICAN-AMERICAN LINGUISTICS (3)

Historical and varying manifestations of black English in the Western hemisphere.

01:014:353. BLACK COMMUNITY LAW AND SOCIAL CHANGE (3)

Origins of racism in the judicial process and its effects on the black community since slavery.

01:014:355. BLACKS AND ECONOMIC STRUCTURES (3)

Scope and organization of economic activity in the black community; investments, ownership of capital, exploitation of the consumer and wage earner.

01:014:356. MUSLIMS AND ISLAMIC INSTITUTIONS IN AMERICA (3)

Credit not given for both this course and 01:685:355.

Explores the bonds of Muslim community, the meaning of Muslim-American identity, how immigrant groups are assimilating into American society, and institutional frameworks being adopted for national integration.

01:014:357. ISLAM IN THE GLOBAL BLACK EXPERIENCE (3)

Examination of the sociopolitical dimensions of Islam in Africa and the African diaspora, and the interactions between Islam and such ideologies as nationalism and race consciousness in black communities internationally.

01:014:359. BLACKS AND JEWS IN AMERICAN HISTORY (3)

Credit not given for both this course and 01:512:359 or 01:563:359.

Explores the history of blacks and Jews in America with an eye on three centuries of cooperation and conflict.

01:014:360. WRITERS OF AFRICA AND THE NEW WORLD (3)

Comparison of black writers of Africa, the United States, and the Caribbean, with focus on areas of commonality and divergence.

01:014:362. BLACK IDENTITY, RELIGION, AND POLITICS (3)

Analysis of social, psychological, and institutional forces shaping group and individual identity of blacks.

01:014:363. RACE, CLASS, GENDER, AND SCHOOLING (3)

Pre- or corequisite: 01:070:101 or permission of instructor. Credit not given for both this course and 01:070:363 or 01:988:363.

Examines racial and gender differences in adolescents' school performance. Structural, historical, and cultural foci. Ethnographic and autobiographical cases of black students and other students of color.

01:014:365. BLACK MIGRATION AND URBANIZATION (3)

Black migration to industrial-urban centers; problems of urbanization. Present interrelationships among racial demography, ecology, social psychology, and the planning process within cities.

01:014:366. THE HISTORY OF RACE AND SEX IN AMERICA (3)

Credit not given for both this course and 01:512:366.

Examines how race and gender have independently and jointly determined life chances throughout American history.

01:014:367. AFRICAN LABOR HISTORY (3)

Credit not given for both this course and 01:508:420.

Precolonial and colonial labor mobilization, control, and resistance; working class formation; the labor process and worker consciousness.

01:014:369. BLACK THEOLOGY (3)

Pre- or corequisite: 01:014:269.

Exploration into theological concepts, terms, and expressions as they relate to the African and the African American.

01:014:370. THE AFRO-ATLANTIC DIASPORA (3)

Introduction to history of African diaspora in the Americas and the Caribbean. Traces origins and development of the Atlantic slave trade and the creation of new African-based cultures in the Americas.

01:014:371. AFRICAN DEVELOPMENT (3)

Prerequisite: 01:014:212.

Analysis of the historical, political, demographic, economic, and sociocultural problems of African underdevelopment within world spatial structure and the contemporary scene.

01:014:376. PAN-AFRICAN MOVEMENT (3)

Pan-Africanism and its development among the black elite on both sides of the Atlantic from the early 19th century to the present.

01:014:380. BLACKS IN SCIENCE: ANCIENT AND MODERN (3)

Pre- or corequisite: 01:014:274 or 321.

Lost sciences of inner Africa; African contributions to early dynastic Egyptian science and, with Arabs, to medieval Moorish science; African-American science and invention.

01:014:404. SEMINAR ON CONTEMPORARY RACE RELATIONS (3)

Analysis of the theoretical structure of race relations and evaluation of its relevance to research in contemporary situations.

01:014:410. AFRO-BRAZILIAN HISTORY (3)

Open to juniors and seniors only. Credit not given for both this course and 01:590:410.

Overview of history of largest African diaspora community in world. Encourages critical analysis of major issues in African-Atlantic diaspora studies. Principal scholarship supplemented with selected readings in literature, oral history, Afro-Brazilian movement documents, and iconography.

AMERICAN LITERATURE

01:014:413. COLONIALISM AND NEOCOLONIALISM (3)

Political and economic aspects of colonialism. Colonized mind and behavior as portrayed by such authors as Mannoni, Balandier, Memmi, and Fanon. Neocolonialism as a technique of control.

01:014:418. MAJOR AFRICAN-AMERICAN WRITERS (3)

Study of one to three major African-American writers, such as Richard Wright, Ralph Ellison, James Baldwin, Langston Hughes, and Imamu Baraka; social implications of their creative work.

01:014:423. BLACK THOUGHT: A PHILOSOPHICAL INQUIRY (3)

Prerequisite: 01:014:323.

Investigation into a notion of a black philosophy as various philosophical terminologies explored.

01:014:460. METHODOLOGY IN AFRICANA STUDIES RESEARCH (3)

Techniques of research. Historical and contemporary research models used. Methodologies and theories of research.

01:014:461. AFRICAN POLITICAL ECONOMY (3)

Examination of the explanation for the contradictions between Africa's wealth and apparent poverty. Analysis of various national development paths, such as capitalism, African socialisms, Ujamaa, and communism.

01:014:481. THE BLACK FAMILY (3)

Prerequisite: Junior, senior, or graduate standing. Recommended: Previous seminar course work.

Consideration of the black family in historical and contemporary contexts: nuclear versus extended families; two-parent and female-headed households; rural and urban environmental effects.

01:014:490. SEMINAR IN AFRICANA STUDIES (3)

Independent research under faculty guidance, or classroom orientation focusing on a major topic exploring the black experience.

01:014:491,492. INDEPENDENT STUDY (1-4,1-4)

Prerequisites: 01:014:233, a minimum of 18 credits in department or approved equivalent, and good academic standing. Faculty proctor required. Registration by permission only.

01:014:495. AFRICAN DIASPORA FIELD STUDY (3)

Prerequisite: Appropriate foreign language competence for non-English speaking locations.

Social and cultural study of selected communities of the African diaspora including African heritage, historical development, and analysis of contemporary issues.

01:014:497-498. AFRICANA STUDIES SCHOLARS PROJECT (6,6)

Both terms must be completed to receive credit.

To graduate with highest honors, students must participate in this departmental honors project or, with approval, substitute the Mabel Smith Douglass Honors Project, the Livingston College Paul Robeson Project, the Henry Rutgers Scholars Program, or the University College-New Brunswick Honors Program.

AGING 018

Faculty of Arts and Sciences

Program Director: Ellen L. Idler, Sociology; Ph.D., Yale

Program Committee:

Stephen Crystal, *Social Work; Ph.D., Harvard*

Cynthia Daniels, *Political Science; Ph.D., Massachusetts*

Adrienne Eaton, *Labor Studies; Ph.D., Wisconsin*

Philip Greven, *History; Ph.D., Harvard*

James Jones, *Religion; Ph.D., Brown*

Deirdre Kramer, *Psychology; Ph.D., Temple*

Robert Kusch, *English; Ph.D., Northwestern*

Howard Leventhal, *Psychology; Ph.D., North Carolina (Chapel Hill)*

Daniel Ogilvie, *Psychology; Ph.D., Harvard*

Michelle Ochsner, *Urban Studies and Community Health; Ph.D., Columbia*

Adria Sherman, *Nutrition; Ph.D., Pennsylvania State*

Heather Strange, *Anthropology; Ph.D., New York*
Daniel Tichenor, *Political Science; Ph.D., Brandeis*

Additional Faculty:

For a list of additional faculty associated with the program, contact the program director.

Minor Program

The interdisciplinary minor in aging consists of seven courses, which must include either 01:830:335 Adult Development and Aging or 01:920:303 Social Gerontology, normally taken as introductory courses. Both courses may be counted toward the minor. The remaining courses must be selected from the list below. A minimum of three courses must be taken at the 300 level or above. At least five of the seven courses must be taken outside the student's major, with at least two courses in one other discipline. The minor also requires the completion of a culminating paper that may be done in conjunction with any upper-level course listed below, in a faculty-sponsored independent study course, or as a departmental or college honors project. This paper is considered for approval by two members of the interdisciplinary committee, one of whom may be a faculty member in the student's major.

Courses approved for satisfaction of minor requirements include the following:

- 01:070:366 Anthropology of Old Age (3)
- 01:220:316 Health Economics (3)
- 01:220:340 Economics of Income Inequality and Discrimination (3)
- 01:220:348 Economics of Social Welfare Programs (3)
- 01:377:218 Exercise and Health (3)
- 01:377:304 Exercise and Aging (3)
- 01:506:113 Patterns in Civilization: Death (3)
- 01:506:331 The Family in History (3)
- 01:512:121 Health and Environment in America (3)
- 01:512:220 Your Family in History (3)
- 37:575:315 Employment Law (3)
- 11:709:345 Nutrition and Development through the Life Span (3)
- 11:709:498 Nutrition and Disease (3)
- 01:730:249 Medical Ethics (3)
- 01:730:371 Philosophies of Death and Dying (3)
- 01:790:305 Public Policy Formation (3)
- 01:830:271 Psychology of the Family (3)
- 01:830:335 Adult Development and Aging (3)
- 01:830:495 or 496 Research in Psychology (3)
- 10:832:338 Health and Public Policy (3)
- 01:840:112 Death and Afterlife (3)
- 01:840:341 Religion and Psychology (3)
- 01:920:303 Social Gerontology (3)
- 01:920:438 Sociology of Age (3)
- 01:920:495 Research in Sociology (3)

AMERICAN HISTORY 512

(See History)

AMERICAN LITERATURE

(See English 350, 351)

AMERICAN STUDIES 050

Department of American Studies, Faculty of Arts and Sciences

Web Site: <http://amerstudies.rutgers.edu>

Chairperson: Ann Fabian

Professors:

Angus K. Gillespie, B.A., Yale; Ph.D., Pennsylvania
Frank Popper, B.A., Haverford College; M.P.A., Ph.D., Harvard
Michael A. Rockland, B.A., CUNY (Hunter College); M.A., Ph.D., Minnesota

Associate Professors:

Ann Fabian, B.A., California (Santa Cruz); Ph.D., Yale
Leslie E. Fishbein, B.A., CUNY (Hunter College); Ph.D., Harvard
Ben Sifuentes-Jáuregui, B.A., Ph.D., Yale

Assistant Professors:

Nicole Fleetwood, B.Phil., Miami; Ph.D., Stanford
Hilary-Anne Hallett, B.A., New York; Ph.D., CUNY (Graduate Center)

Lecturers:

Louise Duus, B.A., Oberlin College; M.A., Michigan; Ph.D., Minnesota
Albert Nigrin, B.A., M.A., M.F.A., Rutgers
Karen R. Stubaus, B.A., Ph.D., Rutgers

American studies examines American culture and society from the colonial era through the present. It explores the nature of the American character and American ideas and institutions. Particular emphasis is placed on grappling with the totality of the American experience through the unifying concept of culture.

The Department of American Studies is interested in striking a balance between depth and breadth. While some students majoring in American studies pursue the widest range of interdisciplinary studies, others concentrate their courses in one or two areas of interest. Possible emphases include the arts, ethnic studies, communications, preparation for foreign service, history, literature, museum work, popular culture and folklore, prelaw or political science, teaching, and urban affairs.

Major Requirements

Course work for the American studies major is composed of (1) the core courses in American studies that present the methodology and the conceptual framework for a cultural approach to the civilization of the United States and (2) courses in related fields. Majors in American studies must take 01:050:101, 303, and the junior seminar, 389; in their senior year, they must take one of the seminars available under the rubric of 487, 488, 489 or write a senior thesis, registering for 01:050:490. In addition, they must take two more American studies courses, at least one of which is numbered over 300. Majors must also take History 01:512:103, 104 and English 01:350:227, 228. Under exceptional circumstances, these survey courses may be waived by the chairperson of the department and replaced by other American history and American literature courses (at least 6 credits of each). A minimum of 12 more credits (at least four courses) must be taken in American life and culture, 6 credits of which must be at the 300 level or above. These courses are selected from among other American studies offerings or from the Americana offerings of other departments listed in the handbook for majors, which is revised yearly and available in the departmental office. In the case of double majors only, 3 of these 12 elective credits may overlap with the major requirements of other departments.

American studies majors interested in certification for teaching social studies, or English, should consult the Office of Teacher Education of the Graduate School of Education. Substitution of courses in the American studies handbook for courses required for social studies certification should be cleared by the same office.

Minor Requirements

A minor consists of at least 18 credits including the following: three 300- or 400-level American studies courses (3 or 4 credits each) and three more American studies courses at any level (3 or 4 credits each). For the second category, two minicourses may count as one 3-credit course.

The American Studies Association

The American Studies Association is an organization of students and faculty interested in all aspects of Americana. The annual New Jersey Folk Festival is sponsored by the association. It also publishes *The Salad Bowl*, a student-faculty magazine.

Departmental Honors Program

Students with cumulative grade-point averages of 3.0 or better and averages of 3.4 or better in courses taken for the major are eligible to do honors work. Honors students must complete a distinguished independent essay or project in connection with enrollment in 01:050:390 and/or 490 in their senior year. They also must satisfactorily pass an oral examination administered by the American studies faculty, based largely on the essay or project.

The American Studies Prize

The American Studies Prize is awarded annually to the best interdisciplinary student project that illuminates the culture of the United States. Projects must be submitted to the American studies faculty by April 30.

Courses

01:050:101. INTRODUCTION TO AMERICAN STUDIES (3)

Introduces the American studies method through the use of primary documents including novels, autobiographies, paintings, photographs, and films. Note: Students who wish to major in American studies must complete this course with a grade of C or better.

01:050:202. AMERICAN REGIONALISM (3)

Multidisciplinary study of the regions of the United States, with focus on their literature, folklore, music, and other arts.

01:050:216. AMERICA IN THE ARTS (3)

What is "American" about American art and design; examination of the architecture as well as fine, folk, and industrial arts and artifacts of the United States. Normally a craft project required of students.

01:050:228. THE CONTEMPORARY AMERICAN (3)

The emerging American of our times. Forces shaping American culture as revealed in literature, the media, social criticism, and psychology.

01:050:240. LATINO/LATINA AMERICAN CULTURES (3)

Introductory survey of recent texts and films by and about Latinas/os in the United States. Discussion of exile, integration, and assimilation; political presence and nationalism; and examination of literary modes and genres (autobiography, poetry, novel, film, music). Special attention to the migration experiences of Mexican-American, Puerto Rican, Cuban, and Dominican communities.

01:050:259. POPULAR CULTURE (3)

How popular culture shapes and reflects society in advertising, music, popular entertainments, fads, fashion, radio, television, sports, and games.

01:050:261. THE AMERICAN BEST SELLER (3)

Representative best-selling novels of recent decades and what they and their popularity indicate about American values and assumptions.

01:050:262. AMERICAN FILM AND AMERICAN MYTH (3)

American film and its relationship to American myths, society, and culture. Representative classic films screened.

01:050:263. AMERICAN FOLKLORE (3)

Traditional verbal and material lore. American folk narratives, myths, legends, tales, ballads, and songs. How folklore functions in American society and institutions.
One field trip: \$10.

01:050:264. AMERICAN FOLKLIFE (3)

Examination of the lifestyles of American folk groups with emphasis on artifacts: folk architecture, handicrafts, art, costume, and foods.
One field trip: \$10.

01:050:281,282,283,284. TOPICS IN AMERICAN STUDIES

(1.5,1.5,1.5,1.5)

Lec. 3 hrs. May be repeated for credit when topic differs.

Half-term minicourses given each year on topics of contemporary interest that lend themselves to interdisciplinary treatment.

01:050:291. JERSEYANA: NEW JERSEY AS A CULTURE (3)

Interdisciplinary, regional approach to New Jersey, examining its landscape, the peculiarities of its history, its folklore and myths, arts and architecture, music, and literature.
One field trip: \$10.

01:050:300,301. TOPICS IN AMERICAN STUDIES (3,3)

May be repeated for credit when topic differs.

Topics of contemporary interest that lend themselves to interdisciplinary treatment.

01:050:303. A DECADE IN AMERICAN CULTURE (3)

Open only to American studies majors. To be completed prior to enrollment in 01:050:389. Prerequisite: 01:050:101 in which student has received a grade of C or better.

Interdisciplinary approach to understanding a particular decade in American culture, employing the arts, humanities, and social sciences. Decade studied depends on the instructor.

01:050:304. THE AMERICAN CITY (3)

Interdisciplinary approach to the origin, development, and problems of the American city.
One field trip: \$10.

01:050:305. IMAGES OF VIETNAM (3)

Examination of the various ways that the Vietnam war has been represented in American popular culture. Material includes films, novels, memoirs, reportage, and histories.

01:050:306. AMERICAN DETECTIVE FICTION AND FILM (3)

Examination of the distinctively American literary genre of the hard-boiled detective novel and the many films that this genre has inspired, including a look at *film noir*.

01:050:307. THE CULTURE OF THE 1960s (3)

Examination of the culture of the 1960s, with emphasis on the civil rights movement, the war in Vietnam and student radicalism, Woodstock, women's liberation, and the sexual revolution, using social history, literature, music, and film.

01:050:308. THE CULTURE OF METROPOLIS (3)

Examination of the urban culture of New York City in the 19th and 20th centuries, emphasizing the impact of race, class, gender, and ethnicity on developing subcultures.

01:050:309. NINETEENTH-CENTURY ARCHITECTURE IN THE UNITED STATES (3)

Prerequisite: 01:082:105,106 or permission of instructor.

Credit not given for both this course and 01:082:391.

Overview of the social and intellectual history of architecture in the United States to 1900. Role of architecture in societal transformations (the development of nationhood, industrialization, and urbanization). Emphasis on the invention of new building types, including universities, government buildings, prisons, hospitals, railroad stations, and the architecture of World's Fairs.

01:050:312. SPORTS IN AMERICAN CULTURE (3)

Examines the place of sports in American life and how sports may be thought of as "the American religion," as a metaphor for American ideals and values. Figures from the world of sports—players and coaches—will be regular guest speakers.

01:050:314. TECHNOLOGY AND CULTURE IN AMERICA (3)

Cultural responses to the growth and elaboration of American technology as reflected in literature, art, and popular culture.

01:050:315. DOCUMENTARY EXPRESSION IN AMERICA (3)

Relationship between the social and aesthetic functions of documentary in film, photography, journalism, biography, and the nonfiction novel.

01:050:324. WAYWARD AMERICANS (3)

Cultural approach to the means by which socially dominant groups in American society have sought to control deviant behavior. Examination of social theory, social history, literature, and film.

01:050:325. WOMEN ON THE FRINGE: PERCEPTIONS OF WOMEN AS SOCIAL AND SEX-ROLE DEVIANTS IN AMERICAN CIVILIZATION (3)

Societal reaction to female behavior deviating from social and feminine norms. Use of historical narratives, literature, and film to treat such themes as heresy, madness, prostitution, adultery, criminality, political protest, and lesbianism.

01:050:326. THE CULTURE OF AMERICAN WOMEN (3)

Construction of feminine culture as distinct from the dominant patriarchal culture, examining social history, religion, psychology, sociology, oral history, literature, and film.

01:050:329. THE UNITED STATES AS SEEN FROM ABROAD (3)

United States as perceived by foreign commentators, such as Dickens, Trollope, and Waugh, and American expatriate intellectuals and artists, such as James, Hemingway, and Baldwin.

01:050:330. AMERICAN CULTS AND COMMUNES (3)

Examination of historic and fictional communal and religious experiments, illuminating their surprising similarities and what they tell us about American society and culture. From the Shakers and the Oneida community through Jonestown and the Hare Krishnas. Texts include novels and feature films.

01:050:331. ETHNIC AMERICA (3)

Examination of cultural pluralism and the means by which ethnic groups such as Irish, Italians, Jews, African Americans, Asian Americans, and Hispanics have constructed their ethnic identities and the political and cultural forces that shaped those constructions.

01:050:332. THE AMERICAN JEWISH EXPERIENCE IN LITERATURE (3)

Patterns of alienation and assimilation of an American ethnic group as portrayed in its literature. Attention to early narratives as well as the works of contemporary writers such as Roth, Potok, Bellow, Malamud, and Singer.

01:050:333. THE CULTURES OF CONSUMPTION (3)

Examination of the development of mass society, mass production, and consumption from the 1880s to the present. Areas considered may include industrialization and the development of work in relation to leisure, the development of the advertising industry, television, technology, and popular and mass production and consumption.

01:050:335. JEWISH-AMERICAN WOMEN: CONTESTED LIVES (3)

Credit not given for both this course and 01:563:335 or 01:988:334.

Explores the Jewish-American female identity in autobiography and memoir, social history, literature, and film. Examines interplay of religious belief, secularism, social mobility, and acculturating influences within American experience.

01:050:341. THE CHILD IN AMERICA (3)

Evolution of concepts of childhood and adolescence in America and of child-rearing practices through an examination of social history, religious tracts, novels, poetry, film, and child care manuals.

01:050:342. AMERICAN SEXUALITY (3)

Changing American attitudes toward sexual expression and changes in sexual behavior. Examination of literature, film, 19th- and 20th-century advice manuals, and reports on sexual behavior such as the Kinsey Report and the works of Masters and Johnson.

01:050:365. AMERICAN FOLK SONG AND BALLAD (3)

Social concerns in folk songs—sources and circulation in oral tradition, with reference to lyrical folk songs, narrative folk songs, traditional ballads, broadside ballads, and Native-American ballads.

01:050:366. FOLKLORE OF AMERICAN OCCUPATIONAL AND REGIONAL GROUPS (3)

Folklore of occupational groups such as sailors, lumbermen, cowboys, and miners, and of regional groups such as southern mountaineers, Mississippi Delta blacks, Louisiana Cajuns, and Jersey Pineys.

01:050:389. JUNIOR SEMINAR IN AMERICAN STUDIES (4)

To be taken by American studies majors in their junior year after completing 01:050:101 and 303.

A required interdisciplinary seminar for majors. Theme dependent on instructor.

01:050:390. SPECIAL PROBLEMS IN AMERICAN CULTURE (4)

Permission of department and instructor during preceding term required. May be repeated for credit with permission of department.

Independent study of an interdisciplinary nature, which may be expressed in a paper, audiovisual project, or other creative enterprise.

01:050:450. SEMINAR: FOLK FESTIVAL MANAGEMENT (4)

Prerequisite: Permission of instructor during preceding term required.

Designed to accompany presentation of New Jersey Folk Festival. Readings in histories of folk performance and fieldwork in folklore, as well as planning and production of public event.

01:050:487,488,489. SEMINARS IN AMERICAN STUDIES (4,4,4)

For American studies majors who have completed 01:050:389.

Interdisciplinary seminars for majors. Themes dependent on instructor.

01:050:490. ADVANCED PROBLEMS IN AMERICAN CULTURE (4)

Permission of department and instructor during preceding term required.

May be repeated for credit with permission of department.

Independent study of an interdisciplinary nature, which may be expressed in a paper, audiovisual project, or other creative enterprise.

ANTHROPOLOGY 070

Department of Anthropology, Faculty of Arts and Sciences

Web Site: <http://www.anthro.rutgers.edu>

Chairperson: Frances E. Mascia-Lees

Undergraduate Director: Lee Cronk

Professors:

Robert J. Blumenschine, B.A., Wesleyan; Ph.D., California (Berkeley)

John W.K. Harris, B.A., M.A., Ph.D., California (Berkeley)

Frances E. Mascia-Lees, B.A., SUNY (New Paltz); M.A., Ph.D., SUNY (Albany)

Michael Moffatt, B.A., Reed College; B.Lit., Oxford; M.A., Ph.D., Chicago

George Edward Bradshaw Morren, Jr. (Associate Member), B.A., M.Phil., Ph.D., Columbia

Carmel Schrire, B.A., Capetown (South Africa); B.A., Cambridge;

Ph.D., Australian National

Warren Shapiro, B.A., CUNY (Brooklyn College); M.A., Chicago;

Ph.D., Australian National

Lionel Tiger, B.A., M.A., McGill; Ph.D., London School of Economics

Robert L. Trivers, B.A., Ph.D., Harvard

Associate Professors:

Laura Ahearn, B.A., Williams; M.A., Ph.D., Michigan

Susan Marie Cachel, B.A., M.A., Ph.D., Chicago

Lee Cronk, B.A., Northwestern; M.A., Wisconsin; Ph.D., Northwestern

Craig S. Feibel, B.A., Dartmouth; M.S., Iowa; Ph.D., Utah

Angelique Haugerud, B.A., Washington (Seattle); M.A., Ph.D., Northwestern

Dorothy L. Hodgson, B.A., Virginia; M.A., Ph.D., Michigan

Ryne Palombit, B.A., B.S., New Mexico; Ph.D., California (Davis)

Louisa Schein, B.A., Brown; M.A., Ph.D., California (Berkeley)

Assistant Professors:

Chi-hua Chiu, B.A., Colorado (Boulder); Ph.D., Wayne State

Ana Y. Ramos-Zayas, B.A., Yale; M.A., Ph.D., Columbia

Major Requirements

There are two options for completing a major in anthropology, the general option and the evolutionary option. The general option is for those interested in all the subfields of anthropology, as well as for those most interested in cultural anthropology; students who wish to focus on archaeology or biological anthropology also may take the general option. The option in evolutionary anthropology is a more intensive introduction to biological anthropology and archaeology, which also trains students in related sciences.

Option in General Anthropology (Bachelor of Arts)

Students must take a minimum of 36 credits, of which 18 credits are at the 300 or 400 level. One course in each of the subfields of anthropology is required: Introduction

to Cultural Anthropology (01:070:101), Introduction to Human Evolution (01:070:102), Introduction to Archaeology (01:070:105), and Linguistics (01:070:108 or 312, or 01:615:101 or 201). 01:615:201 Introduction to Linguistic Theory counts as a 300-level course toward the six required 300- or 400-level courses in the major. In the junior or senior year, one 400-level course is required. Other anthropology courses may fulfill these subfield requirements, subject to approval by an adviser. One course in environmental policy (11:374:) may be substituted for an anthropology course out of the remaining electives.

Option in Evolutionary Anthropology (Bachelor of Science)

Students must take a minimum of 50 credits. Requirements are divided among the following three areas:

Basic courses (16–20 credits): 01:070:101, 102, and 105 (anthropology); 01:070:395, or 01:960:211, 212, 285, 379, or 401 (statistics); 01:119:101 and 102, or 01:460:101 and 103 (biology or geology).

One course in each of the following topics in anthropology: (18 credits, of which 12 are at the 300–400 level): 01:070:212, 348, 349, 350, or 354 (primatology); 01:070:204, 210, 310, or 356 (social evolution); 01:070:326, 327, 354, or 390 (skeletal biology/hominid paleontology); 01:070:206, 207, 208, 230, 231, 232, 330, 332, 333, 335, 391, or 392 (prehistoric archaeology); 01:070:213 or 394; 01:460:330 or 396 (geoarchaeology/paleoecology); and one 200-level course or higher in cultural anthropology.

Other requirements (12–16 credits): Other 070 courses, including 01:070:420, 497, 498; relevant classes in biology (119), chemistry (160), geology (460), and physics (750). See the undergraduate director for guidance and approval.

Minor Requirements

For a minor in anthropology, students must complete a minimum of 18 credits. Required courses include one course each in basic cultural anthropology (01:070:101) and biological anthropology (01:070:102). Of the remaining 12 credits, at least 6 must be at the 300 level, and 3 must be at the 400 level.

Departmental Honors Program

Students with a 3.0 or better cumulative grade-point average and a 3.4 or better average in anthropology at the end of the junior year may make written application for honors to the undergraduate director in the spring term of the junior year or the first week of the senior year. Candidates who are accepted spend two terms writing an honors paper under the supervision of a faculty member in anthropology (or other qualified faculty chosen by the undergraduate director) and take an oral examination on the paper at the end of the senior year. The faculty adviser and one other faculty member will decide the level of honors, if any, after completion of the oral defense.

Courses

01:070:101. INTRODUCTION TO CULTURAL ANTHROPOLOGY (4)

History of cultural anthropology; changing theoretical and methodological approaches; fieldwork, ethnographic writing, and the culture concept; cross-cultural analyses and comparisons; complex society; local, regional, and global perspectives.

01:070:102. INTRODUCTION TO HUMAN EVOLUTION (4)

Evolutionary processes, including adaptation and speciation; fossil and archaeological records of human morphological and social-behavioral evolution.

01:070:104. INTRODUCTION TO HUMAN EVOLUTION HONORS

LABORATORY (1)

Corequisite: 01:070:102. Students must have a grade-point average of 3.4 or better or permission of instructor to enroll.

Laboratory honors course to accompany 01:070:102. Topics include lab and field methodologies in physical anthropology, human fossil record, primate evolution, human evolutionary biology, and evolutionary theory.

01:070:105. INTRODUCTION TO ARCHAEOLOGY (4)

Overview of human prehistory over the past 5 million years, from origins in Africa to the spread of people first to Asia and Europe, and later to Australia and the Americas, culminating in the archaeology of colonial contact between Europe and distant lands.

01:070:108. INTRODUCTION TO LINGUISTIC ANTHROPOLOGY (4)

Language as a social action, language and culture, language use in specific sociocultural contexts.

01:070:204. INTRODUCTION TO SOCIAL EVOLUTION (3)

Principles underlying social evolution with special emphasis on humans: natural selection, kinship, parent-offspring conflict, parental investment, parasites, sexual selection, cooperation, deceit, and self-deception.

01:070:205. EVOLUTION AND CULTURE (3)

Prerequisite: 01:070:204.

Examination of current research on the relationship between evolutionary biology and culture. Topics include animal culture studies, cultural transmission theory, gene-culture coevolution, and the application of signaling theory to human cultural phenomena.

01:070:206. SURVEY OF NEW WORLD PREHISTORY (3)

Prerequisite: 01:070:105.

Focus on the major cultural traditions and adaptations from the earliest appearance of humans in the Americas through the colonial period.

01:070:207. SURVEY OF OLD WORLD PREHISTORY (3)

Prerequisite: 01:070:105.

Focus on the major cultural traditions and adaptations from the earliest appearance of the human lineage to the establishment of literate complex societies and early civilizations.

01:070:208. SURVEY OF HISTORICAL ARCHAEOLOGY (3)

Prerequisite: 01:070:105.

Introduction to the archaeology of historic times—the interpretation of the past using both archaeological residues and written documents. Emphasis on Africa, Britain, and North America.

01:070:210. APPROACHES TO HUMAN NATURE (3)

Critique of the “cultural relativist” and “cultural constructionist” positions through a consideration of the literature on cultural universals, human ethology and sociobiology, small groups, and play.

01:070:212. SURVEY OF THE LIVING PRIMATES (3)

Introduction to the primate order, emphasizing the morphological and behavioral adaptations of the major groups.

01:070:213. ENVIRONMENT AND HUMAN EVOLUTION (3)

Analysis of influence of environment on evolution in record of human ancestry. Morphological and physiological adaptations of humans in reaction to environmental controls.

01:070:215. SURVEY OF FOSSIL PRIMATES (3)

Outline of primate evolution; origin of primates and primate relatives; description and paleoecology of fossil species, including Paleocene and Eocene species, Malagasy lemurs, first higher primates, New World and Old World monkeys, and Miocene apes; hominid origins.

01:070:216. ANTHROPOLOGY AND MODERN PROBLEMS (3)

Selected topics including conflict of productive and reproductive systems, location and nature of social power, roles of symbolism and zealotry in defining group boundaries.

01:070:220. FOOD AND CULTURE (3)

Culinary customs studied cross-culturally. Food in relation to sex, kinship, politics, economics, and religion. Visual, olfactory, textural, and gastronomic food preferences. Values and nutrition. World nutritional systems.

01:070:222. ANTHROPOLOGY OF SEXUALITY AND EROTICISM (3)

Anthropological approaches to human sexuality, including social evolutionary, ethnographic, cross-cultural, sociobiological, cultural constructionist, and postcolonial.

01:070:225. WOMEN IN AN ANTHROPOLOGICAL PERSPECTIVE (3)

Women in evolutionary and cross-cultural perspectives. Economic, public, and domestic roles; social status; gender and sexuality.

01:070:230. INDIANS OF NORTH AMERICA I (3)

Ways of life of North American Indians and Eskimos. Histories, languages, economic bases, social forms, and belief systems.

01:070:231. INDIANS OF NORTH AMERICA II (3)

Concentration by each student on a particular Indian society and culture.

01:070:232. AMERICAN INDIANS OF NEW JERSEY (3)

Prerequisite: 01:070:105.

Archaeological and ethnohistorical perspectives on the origins and way of life of the Lenape (Delaware).

01:070:238. ANTHROPOLOGY OF EUROPE (3)

European societies and cultures in modern history; changing anthropological perspectives. Gender, ethnicity, and class. Representations and realities of Europe in the making, including issues of nation-building, colonialism, mass culture, and violence.

01:070:244. ANTHROPOLOGY OF SOUTH ASIA (3)

"Traditional" south Asia, emphasizing "Hindus"; contemporary reconstructions and contestations. Sexuality, gender, family, village, caste, religion; regional and national identities; class, urban south Asia, contemporary pop culture; the diaspora.

01:070:246. ANTHROPOLOGY OF SOUTHEAST ASIA (3)

Peoples of Indonesia, the Philippines, Malaysia, and Singapore, indigenous and immigrant. Relative gender egalitarianism in relation to various subsistence types and religious systems. Intercultural relations in multiethnic societies.

01:070:248. ANTHROPOLOGY OF CHINA (3)

No knowledge of Chinese required.

Chinese society and culture before and after 1949. Socialism and reform. Issues of gender, ethnicity, popular culture, ecology, and population. Internal diversity; China in a world context.

01:070:250. ANTHROPOLOGY OF THE CONTEMPORARY UNITED STATES (3)

Older characterizations and analyses of "American" culture; current constructions and contestations of U.S. national, regional, and local culture(s). Ethnographic descriptions and analyses.

01:070:291,292,293,294. TOPICS IN ANTHROPOLOGY (1.5,1.5,1.5,1.5)

Seven-week courses; may be taken consecutively or separately. Topics vary with term and instructor.

01:070:301. PSYCHOLOGICAL ANTHROPOLOGY (3)

Prerequisite: 01:070:101 or 01:830:101.

Relation between social and cultural systems and psychological processes in different groups. Identity, perception, and motivational patterns. Cultural construction of psychology in other cultures.

01:070:302. ENVIRONMENT AND CULTURAL BEHAVIOR (3)

Prerequisite: 01:070:101 or permission of instructor.

Relationships between cultural and environmental phenomena; how the relationships are studied and explained. Readings deal with culture and environment in Asia, Africa, the Americas, Europe, and Oceania.

01:070:303. WEALTH AND CULTURE (3)

Introduction to economic anthropology. Cultural notions of wealth in the United States, Africa, Asia, Latin America, and Europe. Anthropological perspectives on economic inequality, individualism, rationality, moral economy, exchange, consumption, production, and globalization.

01:070:304. POLITICAL ANTHROPOLOGY (3)

Prerequisite: 01:070:101; one other course in cultural anthropology recommended.

Comparative analysis of political systems and practices. Emergent anthropological theories of power, violence, and patterns of domination. Relation of culture to power and political practice. Politics in local and global contexts.

01:070:305. ANTHROPOLOGY OF DEVELOPMENT (3)

Prerequisite: 01:070:101.

Anthropological theories of and approaches to social, cultural, and economic development. Use of concepts such as "culture" and "social change" in construction of development paradigms and policies; role of anthropologists as practitioners, consultants, and critics in development projects; relation of "development" to lived experience of people being "developed."

01:070:306. ANTHROPOLOGY OF EDUCATION (3)

Prerequisite: 01:070:101 or permission of instructor.

Ways adults and children are organized for socialization and education. Comparison of such organization with other social institutions.

01:070:307. MEDICAL ANTHROPOLOGY (3)

Prerequisite: 01:070:101.

Cultural diversity and similarity in the interpretation of health, illness, and death. Preventive and therapeutic medicine. Premodern and modern populations. Interaction between western and other medical systems.

01:070:308. ANTHROPOLOGY OF RELIGION (3)

Prerequisite: 01:070:101 or permission of instructor.

Cross-cultural comparison of religious concepts, roles, and practices. The analysis of religious symbolism. Sociopolitical and economic concomitants.

01:070:309. VISUAL ANTHROPOLOGY (3)

Prerequisite: 01:070:101.

Use of film, videotape, still photography, and painting as media of anthropological analysis.

01:070:310. HUMAN AGGRESSION (3)

Not open to first-year students.

Roots and circumstance of human aggressive behavior. Interplay of phylogenetic and cultural variables. Relevance of ethnological and paleontological data to modern forms of personal violence and warfare.

ANTHROPOLOGY

01:070:311. HISTORY OF ANTHROPOLOGY (3)

Prerequisite: 3 credits in anthropology or permission of instructor.

Development of contemporary professional western anthropology from 18th- and 19th-century roots to modern schools of thought.

01:070:312. LANGUAGE AND SOCIAL DIVERSITY (3)

Prerequisite: 01:070:101 or a linguistics course or permission of instructor.

Language and communication in social life. Class, ethnic, and sex-role differences in language use. Bilingualism and linguistic diversity studied cross-culturally.

01:070:313. CULTURE, LANGUAGE, AND COGNITION (3)

Prerequisite: 01:070:101 or a linguistics course or permission of instructor.

Cross-cultural study of human thought. Influence of language on culture and cognition. Universals in language and culture. Implications for ethnography and communication.

01:070:314. INTRODUCTION TO ETHNOMUSICOLOGY (3)

Methods, aims, and findings of studies of ethnic music and dance. Music in culture, stability and change, and acculturation. Stylistic features and comparative analyses of selected musical forms and instrumentation.

01:070:315. AMERICAN INDIAN MUSIC AND DANCE (3)

Cross-cultural description and analysis of music and dance of historical and contemporary American Indians.

01:070:317. METHOD AND ANALYSIS IN CULTURAL ANTHROPOLOGY (3)

Prerequisite: 01:070:101 or permission of instructor.

Designing and implementing research projects: formulating problems; selecting methodologies; methods of collecting, constructing, and analyzing qualitative, quantitative, and textual data (emphasis on computer-based techniques). Training in participant-observation, census and questionnaire construction and coding, interview techniques, and narrative analysis.

01:070:318. READING ETHNOGRAPHIC WRITING (3)

Prerequisite: 01:070:101 or permission of instructor.

Exemplary fieldwork-based monographs in cultural anthropology, with an emphasis on most recent ones. Ethnography as text; ethnography as cultural description, inscription, interpretation, and criticism; ethnography as theory-laden versus ethnography as data for theorizing.

01:070:320. DIASPORA, MULTICULTURALISM, AND ETHNICITY IN THE UNITED STATES (3)

Prerequisite: 01:070:101 or permission of instructor.

Theory and ethnography of recent immigrations; community, identity construction; class, race, gender, and age; local, national, and transnational factors; various case studies.

01:070:323. WOMEN WRITING CULTURE (3)

Prerequisite: 01:070:101. Credit not given for both this course and 01:988:323.

How gender, power, and difference shape the writings of women ethnographers. Interpretation, analysis, authority, intellectual representation, and creativity; life experiences and ethnography.

01:070:326. PLEISTOCENE HOMINID ADAPTATIONS (3)

Prerequisites: 01:070:102, 105 or permission of instructor.

Cultural and biological aspects of hominid evolution during the Pleistocene.

01:070:327. POST-PLEISTOCENE HOMINID ADAPTATIONS (3)

Prerequisite: 01:070:105 or permission of instructor.

African, Asian, and European cultural developments after the Pleistocene, including origins of farming, village life, and complex society.

01:070:330. ARCHAEOLOGY OF AUSTRALASIA (3)

Prerequisite: 01:070:105.

Prehistory of Australasia in its worldwide perspective, with special reference to Asian origins, impact of human colonization, and interpretative models based on modern aboriginal hunter-gatherer behavior.

01:070:332. NORTH AMERICAN ARCHAEOLOGY (3)

Prerequisite: 01:070:105.

Prehistory of North America from the appearance of humans on the continent to European discovery. Varieties of adaptation, cultural interrelationships, developmental trends.

01:070:333. COLONIAL ARCHAEOLOGY (3)

Prerequisites: 01:070:105, 208.

Archaeology of post-Colombian European colonial spread worldwide, with particular reference to North America and Africa. Strong focus on practical laboratory work, specifically analysis of colonial artifacts, including ceramics, glass, pipes, and fauna.

01:070:334. FIELD STUDY IN ARCHAEOLOGY (6)

Prerequisite: 01:070:105; open to juniors and seniors only. Minimum of 6 to 10 weeks at field location. Course may be repeated with permission of department.

Supervised participation in fieldwork with instruction in excavation methods and practice. Personnel and field project location vary from year to year. Fees: tuition, transportation to site, room and board.

01:070:335. ANALYSIS OF ARCHAEOLOGICAL DATA (3)

Prerequisites: 01:070:105, 334.

Processing and analysis of new archaeological data from supervised field programs; metrical, physical, and statistical analysis may be utilized on various classes of material.

01:070:338. ANTHROPOLOGY OF AFRICA (3)

Prerequisite: One introductory course in social science or permission of instructor.

Precolonial, colonial, and postcolonial African cultures and societies. Gender, ethnicity, and class. Representations and realities of Africa in a global context, including issues of development, conservation, and tourism. Popular culture and contemporary rural and urban experiences.

01:070:340. ANTHROPOLOGY OF ABORIGINAL AUSTRALIA (3)

Prerequisite: 01:070:101 or permission of instructor.

Aboriginal cultures of Australia and their "re-invention" in response to European and East Asian contact, with emphasis on kinship and other social ideologies, ritual and gender, and microsociology of everyday life.

01:070:348. PRIMATE SOCIOECOLOGY (3)

Prerequisites: 01:070:102, 212 or permission of instructor.

Principles and data of primate ecology. Feeding and ranging behaviors. Niche separation and ecological functioning of primate social groups.

01:070:349. ADVANCED PHYSICAL ANTHROPOLOGY (3)

Prerequisite: 01:070:102 or permission of instructor.

Advanced evolutionary theory. Biochemical and genetic approaches. Primate morphology and behavior. Modern theories of human variability.

01:070:350. PRIMATOLOGY AND HUMAN EVOLUTION (3)

Pre- or corequisites: 01:070:102, 212 or permission of instructor.

Anatomy, behavior, and evolution of primates. Evolution of social life. Sexual behavior, dominance, aggression, territoriality, social alliances, communication, and ecology.

01:070:354. FUNCTIONAL AND DEVELOPMENTAL ANATOMY OF THE PRIMATE SKELETON (3)

Prerequisite: 01:070:102.

Morphology and function of the human / primate skeleton, integrating developmental bone biology, functional morphology and biomechanics, and descriptive musculoskeletal anatomy.

01:070:355. LABORATORY IN SKELETAL BIOLOGY OF PRIMATES (1)

Pre- or corequisite: 01:070:354.

Examination of human skeletal and dental anatomy in comparison to closely related primates and casts of fossil hominids. Emphasis on identification of human bone fragments and teeth.

01:070:356. HUMAN VARIATION (3)

Prerequisite: 01:070:102 or permission of instructor.

History of the concept of race in the West. Physical anthropological perspective, with emphases on human variation through time and on the principles of study of modern human variability.

01:070:358. INTRODUCTION TO HUMAN OSTEOLOGY (3)

Prerequisite: 01:070:102 or equivalent. Corequisite: 01:070:359. Permission of instructor required.

Intensive introduction to human osteology, bone biology and growth, and paleopathology. Basis for advanced work in paleoanthropology, forensic anthropology, bioarchaeology, and osteometry.

01:070:359. HUMAN OSTEOLOGY LABORATORY (3)

Prerequisite: 01:070:102 or equivalent. Corequisite: 01:070:358. Permission of instructor required.

Accompanies 01:070:358. Intensive practical training in osteology lab identification and analysis techniques.

01:070:360. FAMILIES (3)

Prerequisite: 01:070:101.

Traditional family types and organization studied cross-culturally. Modern western family and alternatives: utopian communities, "intentional" communities.

01:070:361. HUNTERS AND GATHERERS (3)

Prerequisite: 01:070:101 or permission of instructor.

Consideration of data from aboriginal Australia, the Southern African bushmen, and elsewhere, in light of social theory, including gender studies.

01:070:363. RACE, CLASS, GENDER, AND SCHOOLING (3)

Prerequisite: 01:070:101 or permission of instructor. Credit not given for both this course and either 01:014:363 or 01:988:363.

Examines racial and gender differences in adolescents' school performance. Structural, historical, and cultural foci. Ethnographic and autobiographical cases of black students and other students of color.

01:070:364. SEX ROLES AND SOCIAL STRUCTURE (3)

Prerequisite: 01:070:102 or permission of instructor.

Sexual differences in primates; implications for social, economic, and political relationships in contemporary society. Cross-cultural comparison. Adaptive and maladaptive features of sociosexual patterns.

01:070:366. ANTHROPOLOGY OF OLD AGE (3)

Prerequisite: 01:070:101.

Cross-cultural approaches to aging and the aged. Sex-role differences between aged men and women in various societies.

01:070:368. ANTHROPOLOGY OF MASS MEDIA (3)

Pre- or corequisite: 01:070:101 or permission of instructor.

Mass media and culture. The impact of mass media on the production and consumption of cultural identities. Inquiry into representations of gender, sexuality, the body, ethnicity, race, and nationhood in mass media discourse. The mass media in a postcolonial, global, and transnational context.

01:070:370. FOLKLORE AND IDEOLOGY (3)

Prerequisite: 01:070:101.

Folklore and expressive culture; the political and ideological importance of narrative traditions. Interpretations of folklore with reference to gender, ethnicity, the family, and the state. Folklore as an agent of social transformation: socialism, nationalism, fascism.

01:070:371. THE POLITICS OF CULTURE (3)

Prerequisite: 01:070:101.

Politics of cultural processes. Race, gender, ethnicity, and sexuality in representations. Theories of cultural production, domination, distribution, and consumption. Resistance and nonmainstream culture; ethnographic examples of ideology, economy, and global cultural flows.

01:070:372. ANTHROPOLOGY OF THE BODY (3)

Prerequisite: 01:070:101. Recommended: an additional course in cultural anthropology.

Body in history and society. Comparative approaches to cultural construction of bodies. Impact of gender, sexuality, ethno-national, racial, and class differences on body practices. Formation of normative discourses on body in medical science, consumer culture, mass media.

01:070:374. LOCALITIES AND GLOBAL SYSTEMS (3)

Prerequisite: 01:070:101. Recommended: an additional course in cultural anthropology.

Interaction of transnational and local processes through case studies and theory. Political economy, world systems, and cultural imperialism. Global culture and media. Intercultural representation and stereotyping. Diaspora, transnational movements, and nation-state.

01:070:375. JEWISH IMMIGRANT EXPERIENCE (3)

Credit not given for both this course and 01:506:375 or 01:563:375.

Comparative study of modern Jewish immigrant experience, focusing on European and Middle Eastern communities resettled in America, Israel, and Europe.

01:070:376. POWER AND DIFFERENCE (3)

Prerequisite: 01:070:101. Recommended: two additional courses in cultural anthropology. Intended for majors.

Emergent theories of inequality. Social constructions of difference. Topics challenging conventional notions of cultural anthropology—identity, representation, discrimination, exclusion, marginalization, contestation, resistance.

01:070:378. THE ANTHROPOLOGY OF GENDER (3)

Prerequisite: 01:070:101 or permission of instructor. Credit not given for both this course and 01:988:378.

Gender as an analytic category; exchange, production, reproduction, binarism, representation. Intersections of gender with class, race, and ethnicity. Theoretical and ethnographic readings.

01:070:379. GENDER AND POWER IN AFRICA (3)

Credit not given for both this course and 01:988:379.

Experiences and expressions of gender in historical and contemporary Africa emphasizing issues of diversity and commonality, modalities of power, and articulation with other forms of difference, such as ethnicity, class, and nationality.

01:070:380. CULTURE, MEMORY, HISTORY (3)

Prerequisite: 01:070:101 or course in sociology or history approved by instructor.

Anthropological approaches to history and memory. Theory, method; comparative study of remembering, forgetting, commemorating, narrating, ritualizing, structuring time. Early, contemporary scholarship; political economy, identity, authority, representation in shaping cultural memory, historical constructions.

01:070:389. ETHNOGRAPHY OF GENDER IN SOUTH ASIA (3)

Credit not given for both this course and 01:988:389.

An explanation of gendered practices in South Asia. Ethnographies from Hindu, Buddhist, and Muslim communities explore the various aspects of gender in particular South Asian contexts.

01:070:390. PLIO-PLEISTOCENE HOMINID ANATOMY (3)

Prerequisite: 01:070:102.

Human fossil record during Plio-Pleistocene; taxonomy, phylogenetics, and functional morphology. Origins of Hominidae, diversity in *Australopithecus* and *Paranthropus*, rise of *Homo* and of *Homo sapiens*. Castes and published reports; methods of inference.

ARMENIAN

01:070:391. LITHIC ANALYSIS IN ARCHAEOLOGY (3)

Prerequisite: 01:070:105.

Archaeological study of how stone tools were made and used. Consideration of manufacturing technology, use and wear, experimental replication, and their implications for archaeological interpretation.

01:070:392. FAUNAL ANALYSIS IN ARCHAEOLOGY (3)

Prerequisite: 01:070:105.

Identification of animal bones, teeth, and other faunal remains in archaeological contexts. Quantifying number of individuals and skeletal elements; butchery techniques and bone modification and their implications for archaeological interpretation.

01:070:393. CULTURAL RESOURCE MANAGEMENT (3)

Prerequisite: 01:070:105.

Legal, administrative, executive, and practical aspects of the theory and practice of cultural resource management, with emphasis on archaeological resources. One field trip.

01:070:394. MICROSTRATIGRAPHIC ANALYSIS IN ARCHAEOLOGY (3)

Recommended: 01:460:340 (may be concurrently enrolled). Credit not given for both this course and 01:460:394.

Field and laboratory studies of geological context in archaeological sites. Data collection and sampling, sediment analysis, and reporting. Interpretation of depositional and postdepositional features.

01:070:395. QUANTIFICATION OF ARCHAEOLOGICAL DATA (3)

Prerequisite: 01:070:105.

Data analysis, coding schemes, data management, and the application of statistical techniques to problems in archaeology. Emphasis on creating, maintaining, and using computer files of archaeological data.

01:070:401. THEORIES IN CULTURAL ANTHROPOLOGY (3)

Prerequisite: 6 credits in anthropology or permission of instructor.

Analysis and comparison of the major contemporary theoretical approaches in cultural anthropology.

01:070:402. THEORIES IN PHYSICAL ANTHROPOLOGY (3)

Prerequisite: 01:070:102 or permission of instructor.

Intensive study of major figures in physical anthropological thought. Origins and spread of new ideas; methods of study of humans and nonhuman primates.

01:070:403. ADVANCED SEMINAR IN NORTH AMERICAN INDIANS (3)

Prerequisite: Two courses from 01:070:230, 231, 315, or related courses in other departments approved by instructor; or permission of instructor.

Each student conducts research on specific topics in North American Indians.

01:070:404. ADVANCED SEMINAR IN ARCHAEOLOGY (3)

Prerequisite: 01:070:105. Open only to juniors and seniors.

Selected topics and problems in archaeology.

01:070:405. PERSPECTIVES ON LATINO ETHNIC CONSCIOUSNESS (3)

Credit not given for both this course and 01:836:405.

Contemporary understandings about formation of Latino ethnic consciousness in the United States. Theoretical and critical perspectives informing social issues relevant to Latinos.

01:070:410. EXPLANATION IN ANTHROPOLOGY (3)

Prerequisite: 01:070:101 or permission of instructor.

Analysis of anthropologists' explanations, with consideration of such topics as the explanatory use of generalizations, models, narratives, culture-specific categories, and causal, functionalist, and essentialist claims.

01:070:412. TOPICS IN AFRICAN PREHISTORY AND PALEOANTHROPOLOGY (3)

Prerequisite: 01:070:326 or 327 or permission of instructor.

Focused consideration of current research and explanatory theory, on topics ranging from hominid origins to Holocene adaptations in Africa.

01:070:414. TOPICS IN EUROPEAN PREHISTORY AND PALEOANTHROPOLOGY (3)

Prerequisite: 01:070:326 or 327 or permission of instructor.

Focused consideration of current research and explanatory theory, on topics ranging from initial human colonization of Europe to Holocene adaptations in Europe.

01:070:420. EVOLUTIONARY GENETICS: HUMANS AND OTHER PRIMATES (3)

Prerequisites: 01:447:380 and 01:070:102 or 212 or permission of instructor.

Credit not given for both this course and 01:447:420.

Analysis of molecular evolution of human and primate genomes, genetic and phenotypic evolution, the genetic basis of being human, and primate phylogeny.

01:070:426. SOUTH AFRICAN ARCHAEOLOGY (3)

Prerequisites: 01:070:102 and 105 or permission of instructor.

Archaeology, ecology, and historical archaeology of South Africa. Covers two million years, early hominids to colonial contact.

01:070:486. GENDER, DEVELOPMENT, ENVIRONMENT: POLICIES, POLITICS, PERSPECTIVES (3)

Prerequisite: 01:988:101, 201, 202, 235, or permission of instructor. Credit not given for both this course and 01:988:486.

Using ethnography and gender as a category of analysis, examines the experiences and implications of transnational development and environmental policies in specific localities.

01:070:495,496. INDEPENDENT STUDY IN ANTHROPOLOGY (BA,BA)

Prerequisite: Permission of instructor.

Supervised study or research on selected anthropological topics.

01:070:497,498. HONORS IN ANTHROPOLOGY (3,3)

Prerequisites: Senior standing and acceptance into departmental honors program.

Two-term supervised project, usually resulting in a thesis, for qualified seniors.

ARCHAEOLOGY

(See Anthropology 070)

ARMENIAN 078

Faculty of Arts and Sciences

For more information about these courses, contact the Office of the Dean of the Faculty of Arts and Sciences.

Courses

01:078:115,116. ELEMENTARY ARMENIAN (3,3)

Introduction to speaking, reading, and writing modern western Armenian.

01:078:117,118. INTERMEDIATE ARMENIAN (3,3)

Development of fluency in written and spoken modern western Armenian.

ART 080, 081

(See also Art History 082)

Department of Visual Arts, Mason Gross School of the Arts

See the Mason Gross School of the Arts section for faculty listing and B.F.A. program information.

The bachelor of arts program in the visual arts explores techniques and materials, places, events, and images that are the basis of creative work. The program offers a curriculum that seeks to develop professional skills as well as an understanding of the cultural and social implications of art. The visual arts program offers studio and critical study courses. Studio courses focus on the mastery of skills within specialized media such as ceramics and sculpture, drawing and painting, graphic design,* photography, printmaking, and video. Critical studies courses focus on art in relation to social, environmental, psychological, and philosophical systems. This focus provides a basis for understanding the position of the artist in the modern world.

Major Requirements: B.A. Program

Visual arts majors in the B.A. program are required to complete a total of 60 credits as follows:

15 credits in foundation courses:

Artmaking 101-102 (3,3)

Drawing Fundamentals (3)

Seminar in Contemporary Art 200-201 (3,3)

Studio Concentration (12)

Studio Electives (18)

Critical Study Electives 080 (9)

Art History 105 and 106 (3,3)

Art History (Before 1800, non-Western, or

Women in Art) (3)

Art History Elective (3)

The foundation courses are credited toward the required 39 credits in studio art and 9 credits in critical studies. Building on this foundation course work, art majors develop the remaining course work and credits into a cohesive program with faculty and staff advisers. Each student plans a balanced integration of studio, critical studies, art history, and related courses.

Transfer students must complete at least 24 credits in studio courses (081) and 9 credits in critical study work (080) in residence in order to receive a B.A. in visual arts.

Dual majors and special interdisciplinary degree programs that include the visual arts should be arranged through the Faculty of Arts and Sciences and the fellows of individual colleges, along with the visual arts faculty.

Bachelor of arts students who desire to major in art must submit a portfolio and transcripts for review by the Visual Arts Evaluation Committee for acceptance into the program.

All B.A. visual arts majors must declare and complete a 12-credit concentration in one of the following subject areas: ceramics and sculpture, drawing and painting, graphic design, photography, printmaking, and video. Admission to the B.A. art major does not guarantee admit-

tance into the graphic design concentration. The graphic design concentration is limited to 20 students who are selected by competitive portfolio review from B.A. and B.F.A. students already enrolled in basic graphic design course work at Mason Gross School of the Arts.

Courses (080)

All descriptions for courses offered in visual arts are listed in the Mason Gross School of the Arts section of this catalog.

Art classes are open to students who are not majoring in visual arts on a space-available basis.

07:080:200-201. SEMINAR IN CONTEMPORARY ART (3,3)

07:080:295. WORKS ON PAPER: INVESTIGATIONS (3)

07:080:300. WOMEN ARTISTS (3)

07:080:301. THIRD-WORLD ARTISTS (3)

07:080:302. THIRD-WORLD ARTISTS II (3)

07:080:308. DESIGN HISTORY (3)

Taken between program entry and 07:081:331.

07:080:319, 320. ART/CRAFT/DESIGN CONNECTION (3,3)

Open to juniors and seniors only.

07:080:340. FILM/VIDEO AS A VISUAL ART (3)

07:080:367. DOCUMENTARY TRADITION (3)

07:080:369. NINETEENTH-CENTURY PHOTOGRAPHY (3)

07:080:370. TWENTIETH-CENTURY PHOTOGRAPHY (3)

07:080:400. VIDEO, ART, AND POLITICS (3)

07:080:494. CRITICAL THEORY OF MEDIA (3)

Courses (081)

The following B.F.A. courses serve as the advanced courses for the B.A. curriculum and are open to all B.A. majors after fundamental requirements have been met.

Note: All but a few of these courses have prerequisites. See Art 081 in the Course Listing chapter in the Mason Gross School of the Arts section for prerequisites and course descriptions.

07:081:101-102. ARTMAKING (3,3)

07:081:105. VISUAL ARTS PRACTICE (3)

07:081:121. DRAWING FUNDAMENTALS I (3)

07:081:122. DRAWING FUNDAMENTALS II (3)

07:081:211-212. CERAMICS I (3,3)

07:081:215. COMPUTERS IN GRAPHIC DESIGN I (3)

07:081:216. COMPUTERS IN GRAPHIC DESIGN II (3)

07:081:221-222. DRAWING I (3,3)

07:081:223-224. FIGURE DRAWING I (3,3)

07:081:227. DESIGN AND VISUAL THINKING: BLACK AND WHITE (3)

07:081:228. DESIGN AND VISUAL THINKING: COLOR (3)

07:081:231. INTRODUCTION TO GRAPHIC DESIGN (3)

07:081:232. INTRODUCTION TO TYPOGRAPHY (3)

07:081:236. INTRODUCTION TO DIGITAL MEDIA (3)

07:081:237. COMPUTER SKILLS FOR ART AND DESIGN (3)

07:081:243. VIDEO I (3)

07:081:251-252. PAINTING I (3,3)

07:081:261. PHOTOGRAPHY I (3)

07:081:271. SILKSCREEN I (3)

07:081:273. LITHOGRAPHY AND MONOPRINTS (3)

* Acceptance into the B.F.A. program and B.A. art major does not guarantee admittance into the graphic design concentration.

ART HISTORY

07:081:275. INTAGLIO (3)
07:081:277. RELIEF PRINTMAKING (3)
07:081:281-282. SCULPTURE I (3,3)
07:081:307. CASTING AND CARVING I (3)
07:081:308. CASTING AND CARVING II (3)
07:081:311-312. CERAMICS II (3,3)
07:081:317. SCRIPTWRITING FOR FILM, VIDEO,
AND PERFORMANCE (3)
07:081:321-322. DRAWING II (3,3)
07:081:323-324. FIGURE DRAWING II (3,3)
07:081:325-326. FIGURE DRAWING FOR PAINTING (3,3)
07:081:331. GRAPHIC DESIGN II (3)
07:081:332. GRAPHIC DESIGN III (3)
07:081:333. TYPOGRAPHY II (3)
07:081:334. PROFESSIONAL PRACTICE IN DESIGN (3)
07:081:343. INTERMEDIATE VIDEO PRODUCTION (3)
07:081:344. INTERMEDIATE MEDIA WORKSHOP (3)
07:081:351-352. PAINTING II (3,3)
07:081:353. INTERACTIVE DESIGN I (3)
07:081:354. INTERACTIVE DESIGN II (3)
07:081:355. DIGITAL AUDIO (3)
07:081:358. PHOTO BOOKS I (3)
07:081:361-362. PHOTOGRAPHY II (3,3)
07:081:365. SOCIAL DOCUMENTARY PHOTOGRAPHY I (3)
07:081:367. ALTERNATIVE PHOTOGRAPHY PROCESSES I (3)
07:081:371. SILKSCREEN II (3)
07:081:372. WORD AND PRINT I (3)
07:081:375-376. ARTISTS' BOOKS: BOOKWORKS I (3,3)
07:081:379. PAPERMAKING I (3)
07:081:381-382. SCULPTURE II (3,3)
07:081:386. PAPERMAKING II (3)
07:081:391,392. INDEPENDENT STUDY (3,3)
07:081:393,394. INTERNSHIPS (3,3)
07:081:411-412. CERAMICS III (3,3)
07:081:413-414. ADVANCED CERAMICS (3,3)
07:081:431. ADVANCED DESIGN I (3)
07:081:432. ADVANCED DESIGN II (3)
07:081:442. VIDEO INSTALLATION (3)
07:081:445. DIGITAL EDITING FOR FILM/VIDEO (3)
07:081:446-447. ADVANCED MEDIA WORKSHOP (3,3)
07:081:451-452. PAINTING III (3,3)
07:081:453-454. ADVANCED PAINTING OR DRAWING (3,3)
07:081:461-462. PHOTOGRAPHY III (3,3)
07:081:465. SOCIAL DOCUMENTARY PHOTOGRAPHY II (3)
07:081:466. DIGITAL PRINTMAKING (3)
07:081:467. ALTERNATIVE PHOTOGRAPHY PROCESS II (3)
07:081:471. LITHOGRAPHY AND MONOPRINT II (3)
07:081:472. INTAGLIO II (3)
07:081:473. WORD AND PRINT II (3)
07:081:475. ARTISTS' BOOKS: BOOKWORKS II (3)
07:081:481-482. SCULPTURE III (3,3)
07:081:483-484. ADVANCED SCULPTURE (3,3)
07:081:491-492. INDEPENDENT STUDY (3,3)

07:081:493,494. INTERNSHIPS (3,3)
07:081:497-498. THESIS AND EXHIBITION (3,3)

ART HISTORY 082

Department of Art History, Faculty of Arts and Sciences

Web Site: <http://arthistory.rutgers.edu/index.php>

Chairperson: Tod Marder

Professors:

Angela Falco Howard, B.A., Università di Torino; M.A., Ph.D.,
Institute of Fine Arts (New York)
Tod A. Marder, B.A., California (Santa Barbara); M.A., Ph.D., Columbia
Joan M. Marter, B.A., Temple; M.A., Ph.D., Delaware
Sarah Blake McHam, B.A., Smith College; M.A., Ph.D., Institute of Fine Arts
(New York)
Catherine R. Puglisi, B.A., Harvard; M.A., Westfield College (London); Ph.D.,
Institute of Fine Arts (New York)
Jocelyn Penny Small, B.A., Bryn Mawr College; Ph.D., Princeton
Archer St. Clair Harvey, B.A., Bryn Mawr College; M.A., Ph.D., Princeton

Associate Professors:

Sarah Brett-Smith, B.A., Harvard; Ph.D., Yale
John F. Kenfield III, B.A., Brown; M.A., Ph.D., Princeton
Carla Yanni, B.A., Wesleyan; Ph.D., Pennsylvania

Assistant Professors:

Jane Sharp, B.A., California (Los Angeles); Ph.D., Yale
Erik Thunø, B.A., M.A., Copenhagen (Denmark); Ph.D., Johns Hopkins

Major Requirements

Art history majors are required to complete 33 credits in the department, including the introductory courses 01:082:105,106; at least 3 credits each in five of the six following areas: ancient, medieval, Renaissance, baroque, modern, and non-Western; and one term of 01:082:491,492. A minimum of 50 percent of the credits for the major must be at the 200 level or above. The minicourses 01:082:291,292,293,294 and the seminars 01:082:491,492 may not be used to satisfy distribution requirements within the major. Only courses completed with grades of C or better are counted toward the major. Art history students considering graduate school are urged to study German and French. Students should visit the art history web site for updates and changes in the program at <http://arthistory.rutgers.edu>.

Minor Requirements

Students minoring in art history are expected to complete 18 credits (six courses) in the department including 01:082:105 and 106. Nine credits must be at the 200 level or above. There are no distribution requirements. Only courses completed with grades of C or better are counted toward the minor.

Departmental Honors Program

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. In their senior year, students enroll in 01:082:497-498, in which independent research on a specific topic is undertaken, and an honors thesis is written under the supervision of a department faculty member. The committee determines whether the candidate merits honors based on the thesis and the student's overall record. For a more complete description of the honors program guidelines, refer to the art history web site.

Summer Programs in France, Germany, Holland, and Italy

The Department of Art History offers a six-week summer program of study in Paris, France. Two courses 01:082:394-395 (3,3) are offered. The subject matter varies to take full advantage of Paris, as well as the collections and staff of the Louvre Museum, by special agreement.

The Department of Germanic, Russian, and East European Languages and Literatures and the Department of Italian, in collaboration with the Department of Art History, offer art history courses as part of their summer programs in Holland, Germany, and Italy. Much of the teaching is done on-site.

Certificate in Historic Preservation

The certificate program offers a combination of courses originating in the Department of Art History, other FAS departments, Cook College, and the Bloustein School of Planning and Public Policy. The program is open to undergraduate students in all units of the university, subject to limitations of space and course prerequisites. Students must submit an application to this program to the director, Tod Marder. A certificate in historic preservation will be awarded to all students who complete the program with an average grade of B or higher. The certificate will be conferred only with the awarding of a B.A. or B.S. degree in an established department or other degree-granting program in the university.

The requirements for a certificate in historic preservation include a total of five 3-credit courses. Two of these, taken in any sequence, are required core courses: Seminar in Cultural Heritage Preservation and History and Theories of Architectural Preservation. Elective courses can be selected from any of those listed below. Prerequisites to the courses must be met by those enrolled. The fifth of the five required courses is a supervised internship approved in advance in writing by the Department of Art History.

Core Courses in Preservation (to be offered every year in conjunction with the Bloustein School)

Art History

- 01:082:430 Seminar in Cultural Heritage Preservation (fall) (3)
- 34:970:511 Theories and Methods of Architectural Preservation (cross-listed as 01:082:431) (spring) (3)

Elective Courses

Art History

- 01:082:276 Great Works of Modern Architecture (3)
- 01:082:300 History of Modern Crafts and Design (3)
- 01:082:301 Ancient Architecture (3)
- 01:082:304 Architect and Society in England (3)
- 01:082:367 American Art 1585–1876 (3)
- 01:082:368 Modern American Art (3)
- 01:082:375 Renaissance and Baroque Architecture (3)
- 01:082:391 Nineteenth-Century Architecture (3)
- 01:082:392 Twentieth-Century Architecture (3)
- 01:082:397 Medieval Architecture (3)
- 01:082:420 African Architecture (3)
- 01:082:421 Contemporary American Architecture (3)
- 01:082:428 The Modern City (3)

- 01:082:445 Studies in the Art and Architecture of New Jersey (3)
- 01:082:446 Studies in American Architecture (3)
- 01:082:447,448 Internship in Historic Preservation (3,3)

(Courses have been recently given by PTLs or are planned on the following topics: Conservation of Building Materials and Systems, Research and Recording of Historic Structures, Historic Interiors, American Decorative Arts)

Planning/Public Policy (all courses to be open to FAS undergraduates by special arrangement).

- 10:975:478 History of Planning Thought (3)
- 10:975:499 Public Policy and the Arts (3)
- 34:970:508 Comprehensive Planning (3)
- 34:970:510 Graduate Planning Studio (3)
- 34:970:525 Property Theory and Policy (3)
- 34:970:585 Tourism Planning (3)
- 34:970:602 Zoning for Communities of Place (3)
- 34:970:604 Land Development Practice (3)

Environmental Resources

- 11:372:231 Fundamentals of Environmental Planning (3)
- 11:372:322 Surveying and Mapping (3)
- 11:372:409 New Jersey Planning Practice (3)

American Studies

- 01:050:216 America in the Arts (3)
- 01:050:281 Urban Adventure (1.5)
- 01:050:291 Jerseyana: New Jersey as a Culture (3)
- 01:050:300,301 Topics in American Studies (3,3)
- 01:050:304 The American City (3)
- 01:050:308 The Culture of Metropolis (3)

Anthropology

- 01:070:105 Introduction to Archaeology (4)
- 01:070:208 Survey of Historical Archaeology (3)
- 01:070:333 Colonial Archaeology (3)
- 01:070:393 Cultural Resource Management (3)

Geography

- 01:450:205 World Cultural Regions (3)
- 01:450:222 Cultural Geography (3)
- 01:450:321 Geographic Information Systems (3)
- 01:450:331 New Jersey (3)

Landscape Architecture

- 11:550:330 History of Landscape Architecture (3)
- 11:550:430 Advanced Landscape History Seminar (3)

Courses

01:082:105,106. INTRODUCTION TO ART HISTORY (3,3)

Lec. 2 hrs., rec. 1 hr.

Survey of the major monuments and trends in the history of painting, sculpture, and architecture.

01:082:111. HONORS SEMINAR I (1)

Corequisite: 01:082:105. Enrollment in college honors or special permission by department required.

Discussions of assigned readings or further investigation of themes treated in lecture.

01:082:112. HONORS SEMINAR II (1)

Corequisite: 01:082:106. Enrollment in college honors or special permission by department required.

Discussions of assigned readings or further investigation of themes treated in lecture.

ART HISTORY

01:082:250. INTRODUCTION TO OCEANIC, AFRICAN, AND PRE-COLUMBIAN ART (3)

Basic concepts in the arts of pre-Columbian Mesoamerica, Africa, and Oceania: time, natural landscape and architecture, and the ritual functions of art.

01:082:251. SURVEY OF RUSSIAN ART (3)

Introduction to the art of Russia covering the 10th century through the 20th century.

01:082:252. EAST ASIAN ART (3)

Discussion of major works (painting, sculpture, and architecture) of China and Japan. Stress on techniques and styles radically different from those of Western art.

01:082:276. GREAT WORKS OF MODERN ARCHITECTURE (3)

For students with little or no background in art history or architecture.

Great monuments of architecture in Europe and America from the late 17th century to the present; emphasis on building types, ideas, and the language of architecture.

01:082:291,292,293,294. TOPICS IN ART HISTORY (1.5,1.5,1.5,1.5)

Prerequisites: 01:082:105,106 or permission of instructor.

Such topics as erotic art; symbolism; landscape painting from the 15th through the 19th century; the frontier in American art.

01:082:300. HISTORY OF MODERN CRAFTS AND DESIGN (3)

Prerequisite: 01:082:106 or permission of instructor.

Crafts from the mid-19th century to the present, with particular attention to major developments such as art nouveau, art deco, and functionalism. Developments in England, France, Germany, and the United States.

01:082:301. ANCIENT ARCHITECTURE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Survey of the architecture of ancient civilizations, emphasizing development of monumental architecture in Egypt, Mesopotamia, Greece, and Rome. Development of classical orders and principles of design are stressed.

01:082:302. INTRODUCTION TO CONTEMPORARY ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Developments in painting and sculpture since 1950. Classes include field trips to galleries and museums in New York City.

01:082:303. ART OF EGYPT AND THE ANCIENT NEAR EAST (3)

Not open to students who have taken specialized courses in this area.

Introductory survey of the architecture, painting, and sculpture of the ancient civilizations of the Nile Valley, Asia Minor, and Persia. One field trip.

01:082:304. ARCHITECT AND SOCIETY IN ENGLAND (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Architecture and the development of the profession in England from the Renaissance through the 18th century, emphasizing the diffusion of classical tradition.

01:082:305. WOMEN AND ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Selected topics on women as subjects of art and/or makers of art. Several field trips.

01:082:306. ROMAN ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Roman art from its Hellenic and native Italic origins to the end of the pagan tradition.

01:082:307. PAINTING OF THE 19TH AND 20TH CENTURIES (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Painting in modern times: impressionism, cubism, fauvism, expressionism, surrealism, and others.

01:082:308. THE AGE OF GIOTTO (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Italian art and architecture from ca. 1250 to ca. 1400, with an emphasis on the stylistic and thematic innovations of Giotto and his successors and the developments of the schools of Florence, Siena, and Venice.

01:082:309. MASACCIO AND HIS CONTEMPORARIES (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Italian art and architecture of the 15th century, focusing on such masters as Masaccio, Donatello, Botticelli, and Alberti; the triumph of naturalism; Renaissance humanism and art theory.

01:082:310. THE HIGH RENAISSANCE IN ITALY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Sixteenth-century art and architecture, emphasizing the achievements of the great central Italian masters: Leonardo da Vinci, Raphael, and Michelangelo; the artistic cult of personality and rivalry with classical antiquity; the crisis of Mannerism.

01:082:311. EGYPTIAN ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Survey of art and architecture in ancient Egypt from pre-Dynastic to Ptolemaic times. Extensive examination of the culture of Egypt—burial customs, religion, kingship, etc. Related discussions centered on the legacy of Egypt in Western art and popular culture.

01:082:312. BYZANTINE ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Art and architecture of the Eastern Roman Empire, 3rd through the 15th centuries. Emphasis on sources of Byzantine style and iconography and on the historical context of Byzantine art.

01:082:313. THE RENAISSANCE IN NORTHERN EUROPE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Religious and secular art in Germany, the Netherlands, and France during the 16th century; painting, sculpture, and prints; impact of reformation and humanism.

01:082:314. ETRUSCAN ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Study of the transition between Greek and Roman worlds. Consideration of architecture, painted decoration, sculpture, and minor arts, tombs, and funeral practices in the ancient world.

01:082:315. SEVENTEENTH-CENTURY ART IN EUROPE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Baroque painting, sculpture, and architecture, emphasizing thematic and stylistic characteristics of the period in works of major artists: Caravaggio, Bernini, Velázquez, Poussin, Rubens, and Rembrandt.

01:082:316. ANGLO-SAXON ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Art and architecture of Anglo-Saxon England from Sutton Hoo through the Bayeux Tapestry.

01:082:317. ANCIENT PAINTING (3)

Prerequisite: 01:082:105.

Development of Greek, Etruscan, and Roman painting from the 8th century B.C. through the Roman Empire.

01:082:318. MYTH AND LEGEND IN ART (3)

Mythology and the artist's response to the myths and legends of his or her civilization, from antiquity through the Middle Ages. Continuity and transformation of central themes.

01:082:319. CELTIC AND EARLY IRISH ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Celtic, early Irish, and Anglo-Saxon art ca. 800 B.C. to A.D. 800. Emphasis on sculpture, metalwork, and enamel, and manuscript illumination.

01:082:320. ISLAMIC ART AND ARCHITECTURE (3)

Pre- or corequisites: 01:082:105,106. Credit not given for both this course and 01:667:320 or 01:685:320.

Intensive overview of the art and architecture of the Islamic world, from Spain to India.

01:082:321. ART OF EARLY CHINA (3)

Prerequisite: 01:082:252 or permission of instructor.

Concentration on archaeological finds: pottery, jade, bronze, precious metals, lacquer from the Neolithic through the early great dynasties (5000 B.C. to A.D. 600).

01:082:322. SURVEY OF JAPANESE ART (3)

Prerequisite: 01:082:252 or permission of instructor.

The many facets of Japanese art (5000 B.C. to modern times). Study of sculpture and painting, temples, and decorative arts.

01:082:323. BUDDHIST ART OF ASIA (3)

Prerequisite: 01:082:252 or permission of instructor.

Buddhist iconography and art as it spread from India to East Asian countries between 200 B.C. and A.D. 1250.

01:082:324. JAPANESE PAINTING (3)

Prerequisite: 01:082:252 or permission of instructor.

Religious and secular painting from 700 to 1800. Secular paintings as decorations reflecting famous literary themes and sensitivity to nature.

01:082:325. CHINESE PAINTING (3)

Prerequisite: 01:082:252 or permission of instructor.

Special techniques, special link to calligraphy, format, subject matter, aesthetic principles, and symbolism governing artistic process, from 400 to 1600.

01:082:326. CHINESE SCULPTURE (3)

Prerequisite: 01:082:252 or permission of instructor.

Major religious (Buddhist and Taoist) and secular sculpture of China of the three great dynasties, Han, Tang, and Song (from common era to 1250).

01:082:331. INTRODUCTION TO AFRICAN AND OCEANIC ART (3)

Prerequisite: 01:082:250 or permission of instructor.

Emphasis on the sculptural traditions of black Africa; the art of Melanesia and Polynesia; stylistic analysis; art in relation to total culture; the impact of these arts on 20th-century Western developments. One field trip.

01:082:332. AFRICAN-AMERICAN ART (3)

Art of peoples of African descent in the United States during the 19th and 20th centuries. Emphasis on artistic, political, and philosophical issues.

01:082:333. PRE-COLUMBIAN ART (3)

Prerequisite: 01:082:250 or permission of instructor.

Art and archaeology of pre-Columbian North and South America; major contributions of the Olmec, Mayan, and Aztec peoples.

01:082:334. BLACKS IN WESTERN ART (3)

Examination of representations and presentations of peoples of African descent by late-18th- and 19th-century European and Euro-American artists.

01:082:335. PAINTING IN ENGLAND FROM HOLBEIN TO TURNER (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Survey of major painters and artistic movements in England from ca. 1530 to 1860.

01:082:341. VENICE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

City and art of Venice considered in context of social / cultural history as reflected in masters such as Bellini, Titian, Palladio; their interpretation of favored Venetian themes: sensuality, religion, politics.

01:082:342. EARLY GREEK ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Survey of art in the Aegean from the early Bronze Age through the Archaic period (ca. 2500–500 B.C.).

01:082:343. LATER GREEK ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Survey of classical and Hellenistic Greek art.

01:082:344. FRENCH RENAISSANCE ART (3)

Prerequisite: 01:082:106 or permission of instructor.

French art in the Renaissance from Francis I to Henry IV; the arts at court and the growth of Paris.

01:082:345. FIELD STUDY (6)

Prerequisite: Permission of instructor. Offered only in summer (eight weeks).

Provides supervised participation in fieldwork. Involves participation and instruction in techniques of archaeological excavation and in analysis, evaluation, and conservation of objects.

01:082:346. FRENCH 17TH-CENTURY ART (3)

Prerequisite: 01:082:106 or permission of instructor.

The triumph of French art from Henry IV to Louis XIV; the emergence of French classicism and the creation of Versailles.

01:082:347. EARLY NORTHERN EUROPEAN PAINTING (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Development of 15th-century easel painting in France, the Netherlands, and Germany; relationship of painting to decorative arts; symbolism, realism, invention from Van Eyck to Bosch.

01:082:348. NORTHERN EUROPEAN PAINTING OF THE 17TH CENTURY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Styles, themes, and historical context of painting in 17th-century Northern Europe, with emphasis on the Netherlands. Artists include Rubens, Van Dyck, Rembrandt, and Vermeer.

01:082:349. RUBENS AND THE BAROQUE IN FLANDERS (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Rubens' career and *oeuvre*, emphasizing his impact on courtly and Counter-Reformation art of the 17th century; Van Dyck, Jordaens, Brouwer, Teniers; architecture, sculpture, graphics.

01:082:350. REMBRANDT AND HIS FOLLOWERS (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Rembrandt's paintings and graphics, emphasizing his development as an artist and his impact on Dutch traditions.

01:082:352. ART OF THE 18TH CENTURY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

The creation and subsequent dissolution of the rococo style under the impact of the neoclassical mode and the French Revolution.

01:082:353. NETHERLANDISH GENRE PAINTING (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Origins and development of secular themes in the art of the Low Countries from 1400 to 1700.

01:082:354. ITALIAN RENAISSANCE SCULPTURE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Examination of Italian sculpture from the mid-13th through the 16th century, including the Pisani, Donatello, Ghiberti, Leonardo, Michelangelo, and Giambologna. One field trip.

01:082:356. LANDSCAPE OF THE MIND: COUNTRY AND CITY IN RUSSIAN LITERATURE AND ART (3)

Major/minor credit by permission of department. Credit not given for both this course and 01:860:335.

Moscow and St. Petersburg; the Russian countryside compared with the exotic sublime; the idyll versus the reality of peasant life; the city and modernism; utopia and antiurban impulse.

01:082:357. ART AND LITERATURE OF THE SOVIET PERIOD AND THE VARIETIES OF NONCONFORMISM (3)

Permission of department. Credit not given for both this course and 01:860:336.
Official and unofficial literature and art; literary and art institutions; alternative venues.

01:082:358. SPECIAL TOPICS IN RUSSIAN STUDIES (3)

Major/minor credit by permission of department. Credit not given for both this course and 01:860:320.

Variable content. Intensive study of a particular topic related to Russia and Russian culture. Specific topics available at time of registration. Conducted in English.

01:082:359,360. ZIMMERLI MUSEUM INTERNSHIP IN RUSSIAN ART (3,3)

Prerequisite: Permission of program director. Credit not given for both this course and 01:860:335. Knowledge of Russian necessary.

Research work related to Riabov and Dodge collections, assisting in development and coordination of special exhibitions, translations, and compiling artists' files.

01:082:361. TWENTIETH-CENTURY RUSSIAN/SOVIET ART (3)

Prerequisite: 01:082:106 or permission of instructor.

Twentieth-century developments in Russian art from cubo-futurism through the art of the perestroika period.

01:082:362. NATIVE ARTS OF NORTH AMERICA (3)

The traditional arts and architecture of the indigenous peoples of the United States, Canada, and Greenland surveyed through archaeological data and ethnohistoric records. Field trips to museums with relevant collections.

01:082:363. BERNINI AND THE BAROQUE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Bernini's sculpture and architecture, its artistic context, and its influence throughout Europe.

01:082:364. ARTS IN BAROQUE ROME (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Review of practical and aesthetic concerns in painting, sculpture, and architecture, with discussions of urbanism, stage design, theater and ephemeral arts, and antiquarian studies.

01:082:365. ITALIAN BAROQUE PAINTING AND SCULPTURE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Baroque painting and sculpture from the Carracci to Tiepolo.

01:082:366. SPANISH PAINTING (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Major Spanish painters from El Greco to Goya.

01:082:367. AMERICAN ART 1585–1876 (3)

Prerequisites: 01:082:105,106 or permission of instructor.

American visual and material culture from colonial times to 1876. The importation of European styles and the development of an American art.

01:082:368. MODERN AMERICAN ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

American visual and material culture from 1876 to the mid-20th century.

01:082:369. HISTORY OF ART CRITICISM TO 1800 (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Concepts of criticism from Greek civilization to 1800. Different modes of analysis. Changing standards. Relationship of form and content. Relationship of criticism and society.

01:082:370. ART CRITICISM: 1800 TO THE PRESENT (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Concepts of criticism from 1800 to the present. Different modes of analysis. Changing standards. Relationship of form and content. Relationship of criticism and society.

01:082:371. ARTS OF WEST AFRICA (3)

Pre- or corequisite: 01:082:250.

In-depth history of the traditional arts of West Africa (Guinea, Mali, Togo, Ghana, and Nigeria).

01:082:372. HISTORY OF THE PRINT (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Media of woodcut, engraving, etching, lithography, and silkscreen, from the 15th century through the present; processes, functions, and historical development exemplified by principal artists represented in the Zimmerli Art Museum.

01:082:373. EARLY MEDIEVAL ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Art of western Europe from Constantine to ca. A.D. 1000, with emphasis on transformation of classical image of physical man to medieval image of spiritual man.

01:082:374. ROMANESQUE AND GOTHIC ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Art and architecture of Western Europe from A.D. 1000 to 1400, from Romanesque symbolic style to Gothic realism.

01:082:375. RENAISSANCE AND BAROQUE ARCHITECTURE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Survey of the most important buildings, architects, and stylistic developments from 1400 to 1750 in Italy, France, England, and Germany.

01:082:376. ARTS OF CENTRAL AFRICA (3)

Pre- or corequisite: 01:082:250 or 371.

In-depth survey of the traditional arts of Cameroon, Gabon, the Central African Republic, Zaire, and Angola.

01:082:378. NINETEENTH-CENTURY ARCHITECTURE IN EUROPE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Overview of the social and intellectual history of architecture in Great Britain, France, and present-day Germany to 1900. Role of architecture in societal transformations (the development of nationhood, industrialization, and urbanization). Emphasis on the invention of new building types, including universities, government buildings, prisons, hospitals, railroad stations, and the architecture of World's Fairs.

01:082:380. MODERN JEWISH ART (3)

Prerequisites: 01:082:105,106 or permission of instructor. Credit not given for both this course and 01:563:383.

The Jewish experience in modern art.

01:082:382. HISTORY OF PHOTOGRAPHY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

History of photography from 1830 to 1900. Style and subject. Interaction of photography and art. Some attention given to technical procedures. Development of color in film.

01:082:383. HISTORY OF PHOTOGRAPHY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

History of photography from 1900 to 1960. Style and subject. Interaction of photography and art. Some attention given to technical procedures. Development of color in film.

01:082:384. ROMANESQUE AND GOTHIC ART AND ARCHITECTURE IN GERMANY (3)

Taught in connection with German Summer Program in Constance.

Romanesque and Gothic art and architecture in Germany, with particular attention given to major monuments in southern Germany. Field trips to the monuments an important aspect of this course.

01:082:385. RENAISSANCE TO MODERN ART AND ARCHITECTURE IN GERMANY (3)

Taught in connection with German Summer Program in Constance.

German painting, sculpture, and architecture from the Renaissance to the present. Special attention given to southern German development of baroque and rococo styles. Field trips to various architectural monuments and museums in Germany.

01:082:386. SCULPTURE OF THE 20TH CENTURY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Significant developments in 20th-century sculpture, including constructivism, kinetic sculpture, primary structures, performance, and environmental works. One field trip.

01:082:387. REALISM (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Analysis of themes and characteristics of 19th-century realist art, especially in England and France, and topics such as photographic realism, orientalism, Pre-Raphaelites.

01:082:388. THE CITY OF ROME (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Archaeology and architectural mythology of a city, its buildings, and its planning from Romulus to Mussolini.

01:082:389. MODERN ART: 19TH CENTURY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Modern painting from romanticism through postimpressionism. Field trips to museums.

01:082:390. MODERN ART: 20TH CENTURY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

European painting and sculpture to World War II; emphasis on American art from 1945 to the present. Field trips to museums.

01:082:391. NINETEENTH-CENTURY ARCHITECTURE IN THE UNITED STATES (3)

Prerequisites: 01:082:105,106 or permission of instructor. Cross-listed with 01:050:309. Special notation: credit not given for both this course and 01:050:309.

Overview of the social and intellectual history of architecture in the United States to 1900. Role of architecture in societal transformations (the development of nationhood, industrialization, and urbanization). Emphasis on the invention of new building types, including universities, government buildings, prisons, hospitals, railroad stations, and the architecture of World's Fairs.

01:082:392. TWENTIETH-CENTURY ARCHITECTURE (3)

Prerequisites: 01:082:105,106 or 276 or 391 or permission of instructor.

European and American architecture and planning from 1900 to the present; emphasis on major architects, styles, and buildings from art nouveau to postmodernism.

01:082:393. ARCHITECTURE AND SOCIETY IN LATIN AMERICA (3)

Prerequisites: 01:082:105,106 or 276 or 391, 392, or permission of instructor. Credit not given for both this course and 01:590:393.

Architecture in Latin America after the Conquest; emphasis on urban development from the Laws of the Indies to Brasilia in social and historical contexts.

01:082:394-395. ART IN PARIS: SPACES AND PLACES (3,3)

Development of architecture, sculpture, and painting in the city from the time of the Caesars through the present. Changes in art in relation to political and social conditions. Taught on site.

01:082:396. IMPRESSIONISM (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Subjects, style, and social significance of 19th-century French impressionism, including Manet, Monet, Degas, and themes of women, cafe society, urbanization, leisure.

01:082:397. MEDIEVAL ARCHITECTURE (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Western European and Byzantine architecture from the 3rd through the 14th century. Emphasis on planning and structure in the Early Christian basilica, the Middle Byzantine church, and the Gothic cathedral.

01:082:398. NINETEENTH-CENTURY FRENCH PRINTS (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Seminar in the history of 19th-century French prints and their relation to social development of the period.

01:082:399. CLASSICAL ARCHITECTURE FROM ANCIENT TO MODERN TIMES (3)

Prerequisites: 01:082:105,106 or permission of instructor.

An investigation of classical architecture and theory from antiquity through the Renaissance to the present.

01:082:400. POSTIMPRESSIONISM (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Late 19th-century art from 1880 through 1914; historical, political, cultural analyses; painting, sculpture, prints; Symbolism, Nabis, Rosicrucians. Artists studied include Cezanne, Gauguin, Rodin, Seurat, Toulouse-Lautrec, Van Gogh.

01:082:417. CUBISM AND ABSTRACT ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Intensive study of early modernists in France and parallel developments in Italy (futurism) and elsewhere. Abstract painting from the 1920s to the present. One field trip.

01:082:420. AFRICAN ARCHITECTURE (3)

Prerequisites: Introductory courses in art history or African studies or permission of instructor.

In-depth study of various concepts and traditional forms of shelter in Africa south of the Sahara.

01:082:421. CONTEMPORARY AMERICAN ARCHITECTURE (3)

Prerequisite: 01:082:276 or permission of instructor.

Contribution of the modern masters (Wright, Gropius, Mies van der Rohe, and Le Corbusier) and their American students in the 1950s and early 1960s. Postmodern architecture of the late 1960s and 1970s.

01:082:423. AMERICAN LANDSCAPE PAINTING (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Landscape painting in America from ca. 1780 to the present.

01:082:428. THE MODERN CITY (3)

Pre- or corequisites: 01:082:391, 392 or permission of instructor.

Architecture and urban design in select European and American cities from the 18th century to the present. Attention to political, socioeconomic, and cultural contexts.

01:082:430. SEMINAR IN CULTURAL HERITAGE PRESERVATION (3)

Examines historic preservation and heritage conservation issues within a global and transcultural context. Topics include the illicit trade in historic material, looting and pillage of monuments and sites, national and international preservation laws and treaties, and model historic preservation projects.

01:082:431. THEORIES AND METHODS OF ARCHITECTURAL PRESERVATION (3)

Political, social, and cultural significance of historic buildings and sites throughout the United States and abroad. Overview of the origins of architectural conservation in Europe. Contemporary theories, methods, techniques, and problems in the field of historic preservation.

ART HISTORY

01:082:441,442. SPECIAL TOPICS IN HISTORIC PRESERVATION (3,3)

Special notation: open to students in program in historic preservation or by permission of instructor.

Special studies in particular theoretical and practical aspects of historic preservation and conservation. Designed by individual instructor.

01:082:444. STUDIES IN ARCHITECTURAL PRESERVATION (3)

Description: study of the history and theories of architectural preservation, introduction to documentation and investigative techniques, modern methods of conservation, regulatory and legal concerns, designs for historic districts.

01:082:445. STUDIES IN THE ART AND ARCHITECTURE OF NEW JERSEY (3)

The distinct contributions of New Jersey's art and architecture to a broader history of American visual arts, from colonial times to the present day.

01:082:446. STUDIES IN AMERICAN ARCHITECTURE (3)

The role of North American architecture in art history. Contribution of individual architects, periods, and styles from Federalist beginnings through the 19th and early 20th century.

01:082:447,448. INTERNSHIP IN HISTORIC PRESERVATION (3,3)

Prerequisite: Permission required.

Supervised internship in the field of cultural heritage conservation and preservation at an approved institution.

01:082:449. EARLY CHRISTIAN ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Origins and development of Christian art and architecture, 3rd to 6th century. Pagan and imperial sources and emergence of the cults of relics and saints stressed. One field trip.

01:082:450. SEMINAR: MAJOR ITALIAN RENAISSANCE ARTISTS AND THEMES (3)

Prerequisite: Permission of instructor. Sections designed by individual instructors. Consult department announcement.

Special studies in Italian Renaissance art. Deals with different subjects, changing from year to year, such as artists (Donatello, Michelangelo, Titian); themes (death, women, patronage); and genres of art (portraits, nudes, altarpieces).

01:082:451. SEMINAR ON PUBLIC MONUMENTS IN AMERICA, 19TH–21ST CENTURIES (3)

Prerequisite: Permission of instructor.

Addresses the issues surrounding public monuments from the 19th century through the present day. Focuses on sculptures commissioned to commemorate major events in the United States, but will also consider some important European examples.

01:082:452. AMERICAN INTERIORS FROM THE COLONIAL TO THE MODERN ERA (3)

Prerequisite: Permission of instructor required.

Introduction to the major decorative periods and social and cultural movements that influenced the choice of furnishings and the organization of American interiors. Emphasis on domestic interiors; discussion of major commercial and institutional spaces. Includes field trips.

01:082:454. SEMINAR: MAJOR BAROQUE ARTISTS AND THEMES (3)

Pre- or corequisites: 01:082:105,106.

Principal artists of the 17th and 18th centuries in Italy, Spain, France, and/or England in monographic format.

01:082:462. WORKSHOP IN CURATORIAL PRACTICES (3)

Prerequisite: By special permission of instructor only.

Practical experience for students interested in curatorial work in museums and/or galleries. Investigation of various responsibilities of museum professionals through field trips to museums and galleries in New York. Organizing exhibitions and preparing accompanying catalogs.

01:082:473. ILLUMINATED MANUSCRIPTS (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Materials, techniques, and styles of decoration and illustration of manuscripts from antiquity to the introduction of printing. Relationship of ornament to text in various genres and style periods, and to patterns of use and patronage. Types of functional and ornamental bindings and their relationship to function and storage of luxury manuscripts.

01:082:480. BUDDHIST CAVE TEMPLES OF CHINA (3)

Prerequisite: 01:082:323.

Painting and sculpture at the sacred cave sites of China. Development of iconography and style from A.D. 400 to 900.

01:082:481. SEMINAR ON BUDDHIST RELIGION AND ART OF CHINA (3)

Prerequisites: 01:082:323 or 01:840:323.

Evolution of the Buddha image in the scriptures and art of China.

01:082:482. GERMAN EXPRESSIONISM AND EUROPEAN DADA (3)

Prerequisites: 01:082:105,106 or permission of instructor.

German painting from 1900 to 1930. Dada in Europe and its impact on later developments, including contemporary art.

01:082:483. FROM TEXT TO IMAGE IN JAPANESE ART (3)

Pre- or corequisite: 01:082:324 or permission of instructor. Credit not given for both this course and 01:565:483.

Impact of classic literature on Japanese paintings; artistic transformations of emotions and events of literary masterpieces into images.

01:082:484. SEMINAR IN ANCIENT ART (3)

Prerequisite: 01:082:105 or permission of instructor.

Focus on various problems of Greek, Etruscan, and Roman art, such as style, iconography, painting, sculpture, portraits, minor arts, architecture, cities, and sanctuaries.

01:082:485. SURREALISM (3)

Prerequisites: 01:082:389, 390 or permission of instructor.

The origins and influences of surrealist art forms and their relationship to Freudianism. Fantastic art, psychotic art, and related tendencies.

01:082:486. SPECIAL TOPICS IN MEDIEVAL ART HISTORY (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Particular genre, medium, monument, or area within Medieval art (e.g.: ivory carving, seals, the Bayeux tapestry, Chartres cathedral).

01:082:487. SEMINAR: SPECIAL TOPICS IN MODERN ART (3)

Prerequisite: 01:082:106 or permission of instructor.

Specialized study in 19th- and 20th-century art and architecture. Seminar may be organized by the time period, thematic content, artistic movement, artist, type of monument, or genre.

01:082:488. SEMINAR: SPECIAL TOPICS IN AMERICAN ART (3)

Prerequisites: 01:082:105,106 or permission of instructor.

Specialized study in American art. Seminar considers various topics, such as artists, monuments, artistic movements, genres, and periods.

01:082:489. PUBLIC POLICY AND THE ARTS (3)

Credit not given for both this course and 10:975:499.

Uniquely American public policies that have created a vigorous world-class arts culture. Changes in domestic and international politics, market economics, globalization, and technology reshaping the cultural policy debate worldwide.

01:082:491,492. SEMINAR IN ART HISTORY (3,3)

Required of art history majors. Others need permission of instructor.

Advanced study in selected area of art history.

01:082:493,494. INDIVIDUAL STUDIES IN ART HISTORY (3,3)

Open only to seniors in art history or by special permission of instructor.
Guided independent research in a particular area of interest.

01:082:495,496. INTERNSHIP IN ART HISTORY (3,3)

Prerequisites: 01:082:105,106. Permission required.

Open only to majors. Supervised internship, usually at a museum or gallery. Permission required.

01:082:497-498. 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 for the course. Independent research on a specific topic leading to an honors thesis written under the supervision of a department faculty member.

ARTS AND SCIENCE 090

(College Courses)

Douglass College

06:090:101. SHAPING A LIFE (3)

Limited to first-year Douglass College students.

Study of the ways women's lives are shaped; as they are lived; and as they are told in autobiography, biography, and oral history. Analysis and discussion of presentations by a broad spectrum of speakers, with accompanying readings.

06:090:110. EMERGING LEADERS (1.5)

Limited to Douglass College students by permission.

Examination of leadership theory as it relates to women. Prepares women for socially responsible leadership. Weekend retreat, lectures, group activities, and discussion.

06:090:130. INTRODUCTION TO SCIENTIFIC RESEARCH (3)

Pre- or corequisites: 01:640:112 or 115; one course in the natural sciences.
Enrollment limited to students in Project SUPER.

How research projects are developed and what skills are needed to undertake research projects. Lectures, discussions, and small-group activities. Serves as a prerequisite for the research-oriented internship of Project SUPER.

06:090:198,199. SCHOLARS PROGRAM FIRST-YEAR SEMINAR (3,3)

Open only to students in the Douglass Scholars Program.

Research-oriented interdisciplinary seminar. Scholars choose from among several seminars each term.

06:090:248,249. SCHOLARS PROGRAM TUTORIAL (3,3)

By arrangement. Open only to students in the Douglass Scholars Program.

Individualized study within or outside the student's intended major aimed at in-depth analysis of some major concerns of the field.

06:090:273,274. AFRICAN CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass Africana House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of Africa. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events.

06:090:275,276. FRENCH CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass French House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of France and other French-speaking countries. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events. Development of active communication skills through immersion in the daily foreign-language activities of the French House.

06:090:277,278. CHINESE CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass East Asian or Chinese House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of China. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events.

06:090:279,280. JAPANESE CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass East Asian or Japanese House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of Japan. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events.

06:090:281,282. GERMAN CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass German House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of Germany. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events. Development of active communication skills through immersion in the daily foreign-language activities of the German House.

06:090:283,284. ITALIAN CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass Italian House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of Italy. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events. Development of active communication skills through immersion in the daily foreign-language activities of the Italian House.

06:090:285,286. SLAVIC CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass Slavic House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of Slavic-speaking peoples of Eastern and Central Europe. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events.

06:090:287,288. SPANISH CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass Spanish House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of Spanish-speaking countries. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events. Development of active communication skills through immersion in the daily foreign-language activities of the Spanish House.

06:090:289,290. PUERTO RICAN AND HISPANIC CARIBBEAN CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass Casa Boricua. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of Puerto Rico and Spanish-speaking Caribbean countries. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events.

06:090:291,292. KOREAN CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass East Asian or Korean House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of Korea. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events.

06:090:293,294. EAST ASIAN CULTURAL EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass East Asian House. May not be used in satisfaction of major requirements. Course may be repeated for credit.

Cultural, social, and political life of peoples of East Asia. Emphasis placed on learning through direct contact with resource persons, audiovisuals, field trips, and programming of cultural events.

06:090:298,299. SCHOLARS PROGRAM SOPHOMORE-JUNIOR SEMINAR (3,3)

Open only to students in the Douglass Scholars Program.

Interdisciplinary seminar, oriented either to research or to community service. Students enrolled in sections designated Citizenship and Service Education (CASE) may be required to enroll concurrently in 06:090:300.

06:090:300. WOMEN IN COMMUNITY SERVICE (1)

Corequisite: Enrollment in 06:090:298 or 299. Open only to students in the Douglass Scholars Program.

Community service internship taken in conjunction with a designated Citizenship and Service Education (CASE) course offered through the Douglass Scholars Program.

06:090:361. COLLOQUIUM (3)

Lecture series with recitation. Title announced as offered.

06:090:395,396. SCHOLARS PROGRAM: INDEPENDENT STUDY (BA,3)

By arrangement. Open only to students in the Douglass Scholars Program. May not be taken P/N/C.

Independent study, usually in student's major department. Students develop, under faculty supervision, their own research design and work on the project for one or both terms.

06:090:410,411. GENERAL HONORS INTERDISCIPLINARY PROJECT (3,3)

Open only to seniors in the Douglass Scholars Program. Degree credit not given for both these courses and 06:090:497,498.

Supervised independent research project leading to an interdisciplinary senior honors thesis or its equivalent.

06:090:495,496. SCHOLARS PROGRAM: INDEPENDENT STUDY (3,3)

Open only to students in the Douglass Scholars Program by permission.

Independent study. Students develop, under faculty supervision, their own research design and work on the project for one or both terms.

06:090:497,498. MABEL SMITH DOUGLASS HONORS PROJECT (BA,BA)

Open to Douglass College seniors by application. Degree credit granted only after completion of two terms.

Independent research and preparation of a written thesis under the direction of a faculty member. Taken in lieu of two courses in each term of senior year.

06:090:499. SUPERVISED RESEARCH (3)

By permission only. Open only to seniors.

Livingston College**02:090:101. BUILDING COMMUNITY THROUGH LEADERSHIP AND UNDERSTANDING (3)**

Open only to first-year students; fall term. Students who fail to earn a grade of C or better must complete a course from the designated course list. List can be obtained from the Academic Information Center.

Examines the nature of community and the function of leadership in building community. Mindful of the importance of individual responsibility, the course also analyzes the lure of individualism, the value of getting involved, and the inherent tension between altruism and selfishness. Through readings, discussions, and class projects, students examine the effect of leadership in communities on personal development and human growth. Also explores efficient use of the library, the learning resource center, and the academic information center. Syllabi and notices available online where students also may engage in discussions.

02:090:103. CULTURE, IDENTITY, AND EDUCATION (3)

Open only to first-year students in the Livingston College Educational Opportunity Fund Program.

Examines how personal and cultural identities are constructed, how they change, and the role of education in these processes.

02:090:153,154. FIRST-YEAR HONORS WRITING AND DIALOGUE SEMINAR (3,3)

Open only to students in the Livingston College Honors Program. Taken concurrently with 02:090:155,156. Fulfills college writing requirements.

Readings, discussions, and written assignments designed to develop analytical and expressive skills. Emphasis on the development of research skills.

02:090:155,156. FIRST-YEAR HONORS (3,3)

Open only to first-year students in the Livingston College Honors Program. Substitutes for 02:090:101.

Interdisciplinary seminars in liberal arts or social sciences; content determined by instructor.

02:090:189,190,289,290,389,390,489,490. HONORS COLLOQUIUM (1 EACH)

Open to all students in the Livingston College Honors Program.

Ongoing series of meetings, lectures, discussions, and cultural events organized on a term basis.

02:090:202. INTRODUCTION TO ORGANIZATION LEADERSHIP (3)

Examines the nature of leadership, the processes that underpin group decisions, and the basic features of organizational culture. Provides a basic understanding of the organizational challenges that leaders must meet in order to guide successfully the course of events in a complex group, and analyzes how leaders must prepare themselves to meet those challenges. Familiarizes students with the basic literature and with fundamental issues that are covered in-depth in other courses within the minor. Students develop strategies for integrating and sharing their knowledge through extra-curricular projects, including designing a web site that facilitates and enhances dialogue with each other and with students in other universities.

02:090:214. COMMUNITY AND SOCIAL INVOLVEMENT (3)

Open only to students in the Livingston College Educational Opportunity Fund Program. Primarily designed for sophomores and juniors.

Through theory and practice, the course challenges the students to develop a deep understanding of life in diverse local or global communities. Students work with organizations such as the Paul Robeson School in New Brunswick and the United Nations in New York City.

02:090:303. INTRODUCTORY ORGANIZATIONAL APPLICATIONS (1)

Open only to students minoring in organizational leadership; to be taken with Leadership Theory II.

Students assume positions of leadership or function as active members of a university organization, maintain a log of their activities, and complete an 8- to 10-page essay analyzing each aspect of their participation and assessing their impact in the organization. Work is supervised directly and graded by the organization's adviser.

02:090:304. INTERMEDIATE ORGANIZATIONAL APPLICATIONS (1)

Students learn to simulate organizations electronically. Through interactive models, they analyze group dynamics and learn to anticipate outcomes, as well as gain a clear sense of the impact that their behavior has on organizational outcomes. They implement their vision and effectively engage in problem-solving scenarios in this electronic environment. Laboratory instruction focuses on strategies for leading within organizations outside the university setting.

02:090:308. DIVERSITY IN THE WORKPLACE (3)

Open only to students in the Livingston College Educational Opportunity Fund Program.

Theory, research, and practice in the ways that cultural diversity is managed in organizations and social institutions.

02:090:358. JUNIOR HONORS THESIS WORKSHOP (1) *

Open only to juniors in the Livingston College Honors Program.

Preparation for the senior project; development of topics; compilation of bibliographic material.

02:090:398. PAUL ROBESON JUNIOR SEMINAR (1) *

Overview of research methodology and development of thesis proposals in preparation for the Paul Robeson Scholars Project in the senior year.

02:090:404. ADVANCED ORGANIZATIONAL APPLICATIONS/ CAPSTONE SEMINAR (4)

Open only to students minoring in organizational leadership. Prerequisites: 02:090:202, 303, and 304.

Capstone experience for the minor; designed to integrate what students have learned and to utilize fully every facet of their experience. Coordinated by instructors of the introductory course (02:090:202 Introduction to Organizational Leadership). The same instructors also select and organize the faculty that will grade the students' final work.

02:090:455,456. SENIOR HONORS THESIS WORKSHOP (1,1) *

Open only to seniors in the Livingston College Honors Program.

Taken in conjunction with senior project. May be combined with departmental honors thesis credit, departmental independent study credit, or 02:090:493,494 Honors Independent Study.

02:090:491,492. SENIOR ROBESON THESIS WORKSHOP (1,1) *

Open only to Livingston College seniors designated Paul Robeson Scholars.

Taken in conjunction with 02:090:495,496.

02:090:493,494. SENIOR HONORS INDEPENDENT STUDY (3,3)

Open only to seniors in the Livingston College Honors Program.

Interdisciplinary or cross-curricular senior honors projects; supervised by director of honors program.

02:090:495,496. PAUL ROBESON SCHOLARS PROJECT (3,3) *

Open only to Livingston College seniors designated Paul Robeson Scholars.

Taken in conjunction with independent research project in the senior student's major department.

Rutgers College

12:090:120. FIRST-YEAR INTEREST GROUP SEMINAR (1)

Open to first-year students only. Students may receive credit only once for this course.

Highly interactive seminars on selected topics focusing on career goals of first-year students. Analysis and discussion of presentations by a broad spectrum of faculty and alumni speakers; introduction to and utilization of university resources.

12:090:131. LIBRARY RESEARCH (1.5)

Introduction to the collections and services of the Rutgers University libraries and to the skills necessary to define a research topic and develop an effective research strategy.

12:090:170 TO 199. STUDY IMPROVEMENT TECHNIQUES (E1.5 EACH)

LSAT skills, GRE skills, GMAT skills, speed reading, study skills, and the Academic Success Seminar.

12:090:220. STUDENTS IN TRANSITION SEMINAR (1)

Open to new transfer students only. Students may receive credit only once for this course.

Introduction to the university and technology services for new transfer students. Topics designed to assist students in the adjustment to the university and to facilitate better first-term academic performance; characterized by small-group learning.

12:090:260. SPECIAL TOPICS (1.5)

Exploration of problems and issues relating to a particular theme.

12:090:270 TO 299. COLLEGE HONORS SEMINAR (3)

Open to members of the Rutgers College Honors Program.

Selected topics in the arts and sciences. Titles vary from term to term.

12:090:320. PEER INSTRUCTOR EDUCATION FOR FIRST-YEAR INTEREST GROUP SEMINARS (3)

Open to selected upper-class students only. May be repeated only once.

Student peer educators learn how to teach a first-year interest group seminar and help new students make transition to university life. Selected topics focus on effective methods of college teaching and program strategies to increase understanding of the first-year and transfer experiences. Discussions center on teaching techniques to integrate faculty, current research topics, academic advising, developmental and adjustment issues, and cooperative / group-learning experiences.

12:090:391,392. INDEPENDENT STUDY (BA,BA)

By permission of Dean of Instruction.

Individual research supervised by a faculty member.

12:090:393,394. HONORS INDEPENDENT STUDY AND RESEARCH (BA,BA)

Open only to members of the Rutgers College Honors Program.

Individual research supervised by a faculty member.

12:090:410-411. INTERDISCIPLINARY HONORS THESIS (3,3)

Open only to seniors in the Rutgers College Honors Program.

Independent research leading to an interdisciplinary senior honors thesis.

12:090:497-498. HENRY RUTGERS SCHOLARS PROJECT (BA,BA)

Open by application to Rutgers College seniors meeting academic eligibility requirements. Both terms must be completed to receive degree credit.

Independent research and preparation of a written thesis under direction of a faculty member. In lieu of two courses in each term of the senior year.

University College—New Brunswick

61:090:298,299. UNIVERSITY COLLEGE MISSION COURSES (3,3)

Open only to University College students.

An opportunity to study, with a senior faculty member, a topic closely related to the instructor's intellectual interests. Topics and instructors change each term.

61:090:361,362,363,364. HONORS MINI SEMINARS (1.5,1.5,1.5,1.5)

Open only to students in the University College Honors Program.

Selected topics in arts and sciences.

61:090:375,376,377,378. COLLEGE HONORS SEMINARS (3,3,3,3)

Open only to students in the University College Honors Program.

Selected topics in arts and sciences.

61:090:394. HONORS INDEPENDENT PROJECT (1.5)

Open only to students in the University College Honors Program.

Allows students to conduct honors research outside the classroom.

61:090:395. HONORS INDEPENDENT STUDY (3)

Open only to students in the University College Honors Program.

Allows students to conduct honors research outside the classroom.

61:090:401,402. ADVANCED HONORS SEMINARS (3,3)

Open only to students in the University College Honors Program.

Selected topics in arts and sciences.

61:090:430. LEADERSHIP PROJECT—YEARBOOK**61:090:431. LEADERSHIP PROJECT—PODIUM****61:090:493,494. SENIOR HONORS THESIS (3,3)**

Open only to students in the University College Honors Program.

Independent research and preparation of a written thesis under the direction of the University College Honors Committee.

* Offered on a Pass/No Credit basis.

ASIAN STUDIES 098

Faculty of Arts and Sciences

Web Site: <http://www.rci.rutgers.edu/~easian/studies.html>

Program Director: Ching-I Tu, *Asian Languages and Cultures; Ph.D., Washington*

Program Faculty:

Michael Adas, *History; Ph.D., Wisconsin*
 Laura Ahearn, *Anthropology; Ph.D., Michigan*
 Edwin Bryant, *Religion; Ph.D., Columbia*
 Indrani Chatterjee, *History; Ph.D., London*
 Kuang-Yu Chen, *Chemistry; Ph.D., Yale*
 Young-mee Yu Cho, *Asian Languages and Cultures; Ph.D., Stanford*
 Ann Choi, *Asian Languages and Cultures; Ph.D., California (Los Angeles)*
 Veneeta Dayal, *Linguistics; Ph.D., Cornell*
 Prache Despande, *History; Ph.D., Tufts*
 Manoranjan Dutta, *Economics; Ph.D., Pennsylvania*
 Ira Gang, *Economics; Ph.D., Cornell*
 Peter B. Golden, *History; Ph.D., Columbia*
 Sumit Guha, *History; Ph.D., Cambridge*
 Angela Howard, *Art History; Ph.D., New York*
 Cheng-Few Lee, *Finance; Ph.D., SUNY (Buffalo)*
 Xun Liu, *History; Ph.D., Southern California*
 Matt K. Matsuda, *History; Ph.D., California (Los Angeles)*
 Senko Maynard, *Asian Languages and Cultures; Ph.D., Northwestern*
 Michael Moffatt, *Anthropology; Ph.D., Chicago*
 Hiroshi Obayashi, *Religion; Ph.D., Pennsylvania*
 Donald Roden, *History; Ph.D., Wisconsin*
 Paul Schalow, *Asian Languages and Cultures; Ph.D., Harvard*
 Louisa Schein, *Anthropology; Ph.D., California (Berkeley)*
 Robert Sewell, *Library; Ph.D., Illinois (Urbana-Champaign)*
 Richard VanNess Simmons, *Asian Languages and Cultures; Ph.D., Washington*
 Leslie Small, *Agricultural Economics and Marketing; Ph.D., Cornell*
 Dietrich Tschanz, *Asian Languages and Cultures; Ph.D., Princeton*
 Janet Walker, *Comparative Literature; Ph.D., Harvard*
 Steven Walker, *Comparative Literature; Ph.D., Harvard*
 Ban Wang, *Asian Languages and Cultures; Ph.D., California (Los Angeles)*
 Richard Wilson, *Political Science; Ph.D., Princeton*
 Odoric Wou, *History; Ph.D., Columbia*

Students interested in Asian studies should be aware that courses also are offered in Chinese (165), Hindi (505), Japanese (565), and Korean (574). An interdisciplinary major is available in East Asian languages and area studies (214).

Minor Program

The interdisciplinary minor program in Asian studies consists of nine courses distributed as follows: (1) four courses in one Asian language, normally two years of Chinese, Japanese, Korean, or Hindi; (2) three courses in Asian studies, specifically 01:098:321, 322, and 444 (when these three specific courses in Asian studies are not offered, other courses from the following approved list of courses may be substituted); (3) two courses from the list given below, selected from two different discipline areas (e.g., humanities, social sciences, ecological sciences); and (4) a substantial paper written in 01:098:444 Seminar on Asian Societies or an approved equivalent. Students interested in the minor program should see the program director for advising on selection of courses.

Courses in other disciplines approved for minor requirements include:

- 01:070:244 Anthropology of South Asia (3)
- 01:070:246 Anthropology of Southeast Asia (3)
- 01:070:248 Anthropology of China (3)
- 01:070:389 Ethnography of Gender in South Asia (3)
- 01:082:109 East Asian Art (3)
- 01:082:321 Art of Early China (3)
- 01:082:322 Survey of Japanese Art (3)

- 01:082:323 Buddhist Art of Asia (3)
- 01:082:324 Japanese Painting (3)
- 01:082:325 Chinese Painting (3)
- 01:082:326 Chinese Sculpture (3)
- 01:082:480 Buddhist Cave Temples of China (3)
- 01:082:481 Seminar on Buddhist Religion and Art of China (3)
- 01:082:483 From Text to Image in Japanese Art (3)
- 01:165:101,102 Elementary Chinese (4,4)
- 01:165:111,112 Chinese Calligraphy (2,2)
- 01:165:121 Intensive Reading and Writing in Chinese (3)
- 01:165:125 Introduction to Chinese Civilization (3)
- 01:165:201,202 Intermediate Chinese (4,4)
- 01:165:205 Intermediate Chinese in China (4)
- 01:165:210 Characteristics of the Chinese Language (3)
- 01:165:220 Chinese Classics and Thought: *I-Ching*, Taoism, and Confucianism (3)
- 01:165:222 Intensive Reading and Writing in Chinese II (3)
- 01:165:241 Chinese Literature in Translation I: Prose and Poetry (3)
- 01:165:242 Chinese Literature in Translation II: Popular Fiction and Drama (3)
- 01:165:262 The Chinese Cinema (3)
- 01:165:264 Chinese Drama and Performing Arts (3)
- 01:165:301,302 Advanced Modern Chinese (3,3)
- 01:165:305 Advanced Chinese in China (4)
- 01:165:310 Twentieth-Century Chinese Literature in Translation (3)
- 01:165:321,322 Introduction to Literary Chinese (3,3)
- 01:165:325 Advanced Chinese Grammar (3)
- 01:165:341,342 Major Traditions in Chinese Thought (3,3)
- 01:165:361 Business Chinese (3)
- 01:165:362 Business Chinese II (3)
- 01:165:371 Contemporary Expository Chinese (3)
- 01:165:401 Advanced Chinese Conversation and Composition (3)
- 01:165:402 Advanced Chinese Conversation and Composition II (3)
- 01:165:410 The Chinese Novel (3)
- 01:165:412 Chinese Poetry (3)
- 01:165:419,420 Readings in Classical Chinese Literature (3,3)
- 01:165:424 The Origin and Development of Chinese Writing (3)
- 01:165:425 Chinese Dialects (3)
- 01:165:451,452 Readings in Modern Chinese Literature (3,3)
- 01:165:490 Seminar in Chinese Literature and Thought (3)
- 01:195:243 Introduction to the Literatures of India (3)
- 01:195:249 Modern Literatures of India (3)
- 01:195:329 Modern Japanese Novel and the West (3)
- 01:195:331 The Novel, East and West (3)
- 01:195:332 Love, Honor, and Suicide in Japanese Literature (3)
- 01:195:333 Modern Writers and East Asia (3)
- 01:214:241 East Asian Civilizations: Traditional Era (3)
- 01:214:242 East Asian Civilizations: Modern Era (3)
- 01:214:310 Writing and Literacy in East Asia (3)
- 01:214:338 Religious Themes in East Asian Literature (3)
- 01:220:357 Economics of India (3)
- 01:220:358 Economics of Japan (3)

01:220:359 Economics of Asia (3)
 01:450:341 South Asia and the Middle East (3)
 01:450:342 East Asia (3)
 01:505:101,102 Elementary Hindi (4,4)
 01:505:201,202 Intermediate Hindi (4,4)
 01:508:230 South Asian History: 600 B.C.E.–1950 C.E. (3)
 01:508:240 Classical Asia (3)
 01:508:242 Modern East Asia (3)
 01:508:244 China and the United States (3)
 01:508:330 Early Modern South Asia, 1500–1800 (3)
 01:508:331 Women in South Asian History (3)
 01:508:332 Slavery in South Asian History (3)
 01:508:340 Late Imperial Chinese Culture and Society (3)
 01:508:342 China, 1800 to the Present (3)
 01:508:344 China's Socialist Revolution (3)
 01:508:346 Women in Chinese History (3)
 01:508:350 Traditional Japan (3)
 01:508:352 Japan's Rise to World Power (3)
 01:508:391 Historical Studies (3)
 01:508:442 China's Foreign Relations (3)
 01:508:450 Society and Culture in Japan (3)
 01:565:101,102 Elementary Japanese (4,4)
 01:565:103 Introduction to Japanese Writing (3)
 01:565:104 Speaking Elementary Japanese (3)
 01:565:201,202 Intermediate Japanese (4,4)
 01:565:213,214 Japanese Conversation and Culture (3,3)
 01:565:241 Japanese Literature in Translation (3)
 01:565:242 Modern Japanese Literature in Translation (3)
 01:565:250 Language and Society in Japan (3)
 01:565:301,302 Advanced Japanese (3,3)
 01:565:303,304 Advanced Japanese for Business (3,3)
 01:565:313,314 Advanced Japanese Conversation and Contemporary Issues (3,3)
 01:565:315 Japanese Literature and the Atomic Bomb (3)
 01:565:317 Love, Honor, and Suicide in Japanese Literature (3)
 01:565:320 The Samurai Tradition in Japanese Literature and Film (3)
 01:565:325 Advanced Japanese Grammar and Rhetoric (3)
 01:565:350 Japanese Film (3)
 01:565:360 Japanese Women Writers (3)
 01:565:361,362 Japanese Popular Culture in Japanese (3,3)
 01:565:370 Community and Difference in Japanese Literature and Film (3)
 01:565:401,402 Advanced Readings in Japanese (3,3)
 01:565:411 Readings in Classical Japanese: Bungo (3)
 01:565:451,452 Translating Japanese Popular Media (3,3)
 01:565:460 Seminar in Japanese Film (3)
 01:565:470 Seminar in Japanese Language and Literature (3)
 01:565:483 From Text to Image in Japanese Art (3)
 01:574:101,102 Elementary Korean (4,4)
 01:574:201,202 Intermediate Korean (4,4)
 01:574:210 Introduction to Korean Culture (3)
 01:574:220 Korean Literature in Translation I (3)
 01:574:221 Korean Literature in Translation II (3)
 01:574:250 Korean Language in Culture and Society (3)
 01:574:301,302 Advanced Korean (3,3)
 01:574:303 Advanced Korean for Business I (3)
 01:574:304 Advanced Korean for Business II (3)
 01:574:401,402 Advanced Readings in Korean (3,3)
 01:574:410,411 Readings in Korean Literature (3,3)

01:574:450 Korea in Translations: Modern Literature and Film (3)
 01:574:451 Korea in Translations: Contemporary Media (3)
 01:730:368 Hindu Philosophy (3)
 01:730:369 Buddhist Philosophy (3)
 01:790:353 Government and Politics of Southeast Asia (3)
 01:790:354 Southeast Asia in World Affairs (3)
 01:790:386 Political Change in China (3)
 01:790:454 Political Development of Asia (3)
 01:840:204 Hindu Scriptures (3)
 01:840:205 Buddhist Scriptures (3)
 01:840:211 Religions of the Eastern World (3)
 01:840:322 Hinduism (3)
 01:840:323 Buddhism (3)
 01:840:324 Chinese Religions (3)
 01:840:335 Buddhist Meditation Traditions (3)
 01:840:338 Religious Themes in East Asian Literature (3)
 01:840:345 Hindu Gurus in the West (3)
 01:840:350 Women in Eastern Religions (3)
 01:840:357 Krishna (3)
 01:840:358 Bhagavad Gita (3)
 01:840:368 Hindu Philosophy (3)
 01:840:369 Buddhist Philosophy (3)
 01:840:411 Seminar in the History of Eastern Religions (3)
 01:840:481 Seminar on Buddhist Religion and Art of China (3)
 01:988:310 South Asian Feminisms (3)
 01:988:389 Ethnography of Gender in South Asia (3)

Courses offered to fulfill the minor requirements generally refer to courses of 3 or more credits.

Courses

01:098:241. EAST ASIAN CIVILIZATIONS: TRADITIONAL ERA (3)

Credit not given for both this course and 01:214:241.

Introduction to traditional Chinese, Japanese, and Korean civilizations, including governmental institutions, educational systems, belief systems, language, literature, art, and everyday life.

01:098:242. EAST ASIAN CIVILIZATIONS: MODERN ERA (3)

Credit not given for both this course and 01:214:242.

Introduction to modern Chinese, Japanese, and Korean civilizations, including the impact of modernization, East-West contact, governmental institutions, belief systems, educational systems, language, literature, art, and everyday life.

01:098:262. ASIAN AMERICAN EXPERIENCE: IDENTITY AND ETHNICITY (3)

Introduction to the historical and intercultural understanding of the social, political, and cultural dynamics of Asian immigrant communities and identity formation in America.

01:098:321. INTERDISCIPLINARY TOPICS IN SOUTH ASIA (3)

Interdisciplinary introduction to the cultures of South Asia: geographic foundations, extended family, village-centered society, agricultural systems, and confrontation of Hindu and Muslim traditions with Western technology.

01:098:322. SELECTED INTERDISCIPLINARY TOPICS IN EAST ASIA (3)

Interdisciplinary introduction to the cultures of East Asia: geographic foundations, extended family, village-centered society, agricultural systems, and confrontation of Chinese and Japanese traditions with Western technology.

ASTROPHYSICS

01:098:444. SEMINAR ON ASIAN SOCIETIES (3)

Prerequisite: Permission of instructor.

Comparative examination of major themes, problems, and patterns in Asian politics, economics, history, and / or culture. Research on aspects of a common topic examined in the seminar.

ASTROPHYSICS 105 (Includes Astronomy)

Department of Physics and Astronomy, Faculty of Arts and Sciences

Web Site: <http://www.physics.rutgers.edu/ugrad/astro.html>

Chairperson: Charles Glashausser

Undergraduate Program Director: Mohan Kalelkar

Professors:

Carlton Pryor, B.S., *California Institute of Technology; M.A., Ph.D., Harvard*
Jeremy Sellwood, B.S., *Bristol (UK); Ph.D., Manchester (UK)*
Theodore B. Williams, B.S., *Purdue; Ph.D., California Institute of Technology*
Harold Zapolsky, B.A., *Shimer College; Ph.D., Cornell*

Associate Professors:

Patrick Cote, B.S., *Western Ontario (Canada); Ph.D., McMaster (Canada)*
Laura Ferrarese, *Laurea degree, Padova (Italy); Ph.D., Johns Hopkins*
John Hughes, A.B., *Columbia College; Ph.D., Columbia*
Terry Matilsky, B.S., *Michigan; M.A., Ph.D., Princeton*

Assistant Professors:

Charles Keeton, B.A., *Cornell; Ph.D., Harvard*
Arthur Kosowsky, B.A., *Washington (St. Louis); Ph.D., Chicago*

Associate Research Professor:

Charles Joseph, B.S., *Michigan State; Ph.D., Colorado*

Major Requirements

The astrophysics major, leading to a bachelor of science degree, provides a thorough introduction to the subject. It is suitable for those with an interest in astronomy who aspire to a career in astronomy research, science education, science journalism, technical development, and other professional areas. Prospective majors should consult an adviser in the Department of Physics and Astronomy before choosing their courses.

In the astrophysics major, at least 15 credits of physics or astrophysics courses at the 300 level or higher that are applied toward the major must be completed at Rutgers–New Brunswick/Piscataway.

Required courses and suggested curricula for honors students and other well-prepared students:

First year: 01:750:271-272, 275,276; 01:640:151-152

Second year: 01:750:273, 381-382, 351; 01:105:341,342; 01:640:251, 244

Third year: 01:750:361, 385-386; 01:105:343, 344; 01:640:423 or 421. 01:750:368 recommended

Fourth year: At least two courses out of 01:105:441, 442, 443, 444

An alternate curriculum is available for students who did not begin with the Honors Physics sequence:

First year: 01:750:123-124; 01:640:151-152

Second year: 01:750:227, 228, 229-230, 381-382; 01:640:251, 244

Third year: 01:750:361, 385-386, 351; 01:105:341,342. 01:750:368 recommended

Fourth year: 01:640:423 or 421, 01:105:343, 344, and at least two courses out of 01:105:441, 442, 443, 444

Students who took 01:750:203-204 (or 201-202) as their introductory physics sequence should consult a departmental adviser to plan an appropriate curriculum for the astrophysics major.

Departmental Honors Program

The chairperson of the department will invite astrophysics majors who have shown considerable ability by the end of their junior year to participate in the departmental honors program. Candidates for honors either (1) take 01:105:497,498 and write an essay or conduct a seminar on a project undertaken in the senior year, or (2) take two terms of graduate courses normally included in the Ph.D. program. They also take advanced courses in addition to the required courses of the astrophysics curriculum. Honors are awarded on the basis of the excellence of the honors project (if applicable), general performance in physics and astrophysics courses, and recommendations of the faculty.

Minor Requirements

The following courses are required for the astronomy minor:

01:750:203-204 (or any other equivalent physics sequence)
01:750:205-206 (or 229-230 or 275,276)
01:105:341, 342, 343, 344

The grade-point average for all courses applied toward the minor must be at least 2.0. No more than one *D* may be applied toward the minor. Three of the four 300-level courses must be taken at Rutgers–New Brunswick/Piscataway. Physics majors or minors who also wish to minor in astronomy must complete 01:105:341, 342, 343, 344. These courses may not also be used to satisfy requirements for the major or minor in physics.

Course Descriptions

For a description of the physics courses that are required for the astrophysics major, see the “Physics” subject heading in this catalog.

01:105:341,342. PRINCIPLES OF ASTROPHYSICS (3,3)

Prerequisites: Two terms of introductory physics and two terms of calculus.

Credit not given for both this course and 01:750:341,342.

Properties and processes of the solar system, the stars, and the galaxies; origin of the elements; evolution of the stars and the universe; neutron stars and black holes.

01:105:343. OBSERVATIONAL RADIO ASTRONOMY (3)

Lec. 1.5 hrs., lab. 3 hrs. Prerequisites: 01:750:341,342 or permission of instructor. Lab schedule will vary through the term. Credit not given for both this course and 01:750:343.

Observational study of the solar system, stars, and galaxies, using the Serin 3 meter radio telescope. Emphasizes computer techniques for data reduction and analysis. Topics may include calibrating system properties, the variability of the Sun, Jupiter, or quasars, and mapping the distribution of hydrogen in our Milky Way galaxy and measuring its rotation.

01:105:344. OBSERVATIONAL OPTICAL ASTRONOMY (3)

Lec. 1.5 hrs., lab. 3 hrs. Prerequisites: 01:750:341,342, or permission of instructor. Students must have nighttime hours free for observing. Credit not given for both this course and 01:750:344.

Observational study of the solar system, stars, and galaxies, using the Serin 0.5 meter optical telescope. Emphasizes computer techniques for data reduction and analysis. Topics may include the dimensions of lunar features, planetary satellite orbits, color-magnitude diagrams for star clusters, and the structure and colors of galaxies.

01:105:441. STARS AND STAR FORMATION (3)

Prerequisites: 01:750:361, 385-386. Credit not given for both this course and 01:750:441.

Observed properties of stars. Internal structure of stars, energy generation and transport, neutrinos, and solar oscillations. Evolution of isolated and double stars, red giants, white dwarfs, variable stars, supernovae. Challenges presented by formation of stars, importance of magnetic fields. Pre-main sequence stellar evolution.

01:105:442. HIGH ENERGY ASTROPHYSICS AND RADIATIVE PROCESSES (3)

Prerequisites: 01:750:361, 385-386. Credit not given for both this course and 01:750:442.

Radiation and scattering processes in plasma. Detection and X- and gamma-rays. Supernovae and remnants, pulsars. Gamma-ray bursts. Accretion disks and binary star outbursts. Quasars and active galactic nuclei. Cosmic rays.

01:105:443. GALAXIES AND THE MILKY WAY (3)

Prerequisites: 01:750:381-382, 385-386. Credit not given for both this course and 01:750:443.

Properties of galaxies: photometry, kinematics, and masses. Disk galaxies; spiral patterns, bars and warps, gas content, star formation rates, chemical evolution. Elliptical galaxies; shapes. Structure of the Milky Way. Nature of dark matter.

01:105:444. INTRODUCTION TO COSMOLOGY (3)

Prerequisites: 01:750:361, 385-386. Credit not given for both this course and 01:750:444.

Expansion of the universe, techniques for distance estimation. Large-scale structure of universe. Cosmological models: open, closed, flat, and accelerating universes. Microwave background: observations, properties, and origin. Problems of standard cosmology and preliminary concept of inflation.

01:105:497,498. HONORS IN ASTRONOMY (BA,BA)

Prerequisite: Invitation of chairperson. Credit not given for both this course and 01:750:497,498.

Supervised independent reading or research in astronomy, culminating in an essay.

BIOCHEMISTRY

(For Biochemistry 115, see the Cook College section; for Molecular Biology and Biochemistry 694, see Life Sciences)

BIOLOGICAL SCIENCES

(See Life Sciences)

BIOMATHEMATICS

(See Mathematics)

BIOMEDICAL SCIENCES

(See Life Sciences)

BOTANY

(See Cook College section)

BUSINESS LAW 140

(See School of Business—New Brunswick section)

CATALAN 145

Department of Spanish and Portuguese, Faculty of Arts and Sciences

Courses**01:145:301-302. ACCELERATED CATALAN (3,3)**

Prerequisite: Fluency in another Romance language and knowledge of its grammar or permission of department.

Intensive study of Catalan, especially as it contrasts with Spanish and other Romance languages. Practice of specific areas of grammar, linguistic structure, style, and literary analysis. Selected readings, compositions, class discussions.

01:145:305. CATALAN CULTURE (3)

Prerequisite: 01:145:301 or equivalent or permission of department. Study abroad option offered in alternate years during winter break. Carries major credit in Spanish.

Three-week visit to Barcelona and surrounding region. Museum and theater trips. Lectures and discussion on Catalan culture, with emphasis on art, music, and literature.

CELL BIOLOGY

(See Life Sciences)

CHEMISTRY 160

Department of Chemistry and Chemical Biology, Faculty of Arts and Sciences

Web Site: <http://rutchem.rutgers.edu>

Chairperson: Roger A. Jones

Vice Chair Curriculum and Undergraduate Advising: John Krenos

Vice Chair Instruction and Graduate Advising: Martha Cotter

Professors:

Edward Arnold, B.A., Ph.D., Cornell
 Jean S. Baum, A.B., Barnard College; Ph.D., California (Berkeley)
 Helen M. Berman, A.B., Barnard; Ph.D., Pittsburgh
 Robert S. Boikess, B.A., M.A., Ph.D., Columbia
 John G. Brennan, B.S., SUNY (Albany); Ph.D., California (Berkeley)
 Kenneth J. Breslauer, B.S., Wisconsin; M.Phil., Ph.D., Yale
 Kuang-Yu Chen, B.Sc., National Taiwan; Ph.D., Yale
 Martha A. Cotter, B.A., Southern Illinois; Ph.D., Georgetown
 Richard H. Ebright, A.B., Ph.D., Harvard
 Eric L. Garfunkel, B.S., Haverford; Ph.D., California (Berkeley)
 Alan Goldman, B.S., Ph.D., Columbia
 Martha Greenblatt, B.S., Brooklyn College; Ph.D., Polytechnic Institute of Brooklyn
 Gregory F. Herzog, B.A., Cornell; M.A., Ph.D., Columbia

Stephan S. Isied, B.S., M.S., *American University of Beirut (Lebanon); Ph.D., Stanford*
 Roger A. Jones, B.S., *Delaware; Ph.D., Alberta*
 Spencer A. Knapp, B.A., Ph.D., *Cornell*
 Joachim Kohn, B.Sc., *Hebrew (Israel); M.Sc., Ph.D., Weizmann Institute (Israel)*
 John Krenos, B.A., *Connecticut; M.S., Ph.D., Yale*
 Karsten Krogh-Jespersen, M.S., Ph.D., *New York*
 Ronald Levy, A.B., *Reed College; Ph.D., Harvard*
 Jing Li, B.S., *Central China Normal; M.S., SUNY (Albany); Ph.D., Cornell*
 Theodore E. Madey, B.S., *Loyola College; Ph.D., Notre Dame*
 Gerald S. Manning, B.A., *Rice; Ph.D., California (San Diego)*
 Robert A. Moss, B.S., *Brooklyn College; M.S., Ph.D., Chicago*
 Wilma K. Olson, B.S., *Delaware; Ph.D., Stanford*
 Joseph A. Potenza, B.S., *Polytechnic Institute of Brooklyn; Ph.D., Harvard*
 Laurence S. Romsted, A.B., *De Pauw; Ph.D., Indiana*
 Heinz D. Roth, *Dipl. Chem., Dr. Rer. Nat., Köln (Germany)*
 Harvey J. Schugar, B.S., *Carnegie Institute of Technology; M.A., Ph.D., Columbia*

Associate Professors:

Kieron J. Burke, B.A., *Trinity College (Dublin); Ph.D., California (Santa Barbara)*
 Edward W. Castner, Jr., B.A., *Rochester; M.S., Ph.D., Chicago*
 Gene S. Hall, B.S., *Tusculum College; Ph.D., Virginia Polytechnic Institute and State University*
 B. Jane Hinch, B.A., M.A., *Ph.D., Cambridge*
 Leslie Jimenez, B.A., *Pomona College; M.S., Cornell; Ph.D., California (Los Angeles)*
 Jeehiun Katherine Lee, B.A., *Cornell; Ph.D., Harvard*
 John W. Taylor, B.A., *Oxford; Ph.D., Chicago*
 Kathryn Uhrich, B.S., *North Dakota; Ph.D., Cornell*
 Ralph Warmuth, B.S., *Cologne; Ph.D., Johann Wolfgang Goethe (Frankfurt)*

Assistant Professors:

David S. Talaga, A.B., *Occidental; Ph.D., California (Los Angeles)*
 Lawrence J. Williams, B.S., *New Mexico Institute of Mining and Technology; Ph.D., Arizona*

Lecturers:

Geeta Govindarajoo, B.S., *Ph.D., California (Irvine)*
 Paul Kimmel, A.B., *Columbia; Ph.D., California (Berkeley)*
 Nancy Marky, B.S., *Universidad Nacional Mayor de San Marcos (Peru); M.S., Ph.D., Rutgers*
 Patrick J. O'Connor, B.S., *Wagner; M.S.Ed., CUNY; Ph.D., Rutgers*
 Louis Petrone, B.A., *Rutgers; M.A., Princeton; Ph.D., Rutgers*
 Manese Rabeony, B.S., M.S., *Ph.D., Université Louis Pasteur (France)*
 Donald L. Siegel, B.A., *Washington (St. Louis); Ph.D., Rutgers*
 Asbed Vassilian, B.A., M.A., *Ph.D., American University of Beirut (Lebanon)*

Entry Requirements for the Major and Minor in Chemistry

Students wishing to declare a major or minor in chemistry must have successfully completed one term of a general chemistry course for science majors (01:160:159, 161, 163, or the equivalent) with a grade of C or better. A score of 4 or 5 on the advanced placement test or appropriate transfer credit from another institution also is acceptable. Petitions for exceptions may be addressed to the vice chair of the undergraduate program.

Major Requirements

The Department of Chemistry and Chemical Biology offers a program of study that provides broad and comprehensive training in all areas of modern chemistry. A certain core of courses is required for completion of the major in chemistry. Included is course work in the four major subdisciplines of chemistry—inorganic, organic, physical, and analytical—as well as work in mathematics and physics. A minimum grade-point average of 2.0 in all chemistry courses is required for graduation.

Within the program, the following six options permit students to select an area of concentration that reflects their particular interests and career goals: core option (A),

general American Chemical Society option (B), chemical biology option (C), environmental option (D), business/law option (E), and chemical physics option (F). Normally, this selection is made in consultation with a chemistry adviser in the term that the major is declared.

The required core courses for option A are listed below. Completion of these courses satisfies the requirements in chemistry for graduation. Additional advanced and research courses are required in options B, C, and D, each of which leads to a degree certified by the American Chemical Society (ACS). Degree options also are available for students interested in using chemistry as a basis for interdisciplinary training (options E, F). For options E and F, courses marked with an asterisk (*) or dagger (†) in the core are substituted by appropriate courses from other disciplines. The required additional courses or substitutions are described under the individual options.

Some options require upper-level courses in disciplines other than chemistry. These courses may have as prerequisites lower-level courses in those other disciplines. When planning the courses for an option, make sure to research the prerequisites well in advance to avoid being prevented from entering a particular course.

An advanced chemistry course is a course that is not part of the core and has a major portion of the curriculum as a prerequisite, including physical chemistry, in most cases. All 400-level courses offered by the department are considered advanced courses.

Overall, the curriculum is designed to permit the student a wide range of career choices, including, but not limited to, chemistry, medicine, law, business, chemical physics, environmental science, and secondary-school teaching.

Required Core Courses

- 01:160:161-162 General Chemistry (4,4) or 01:160:163-164 Honors General Chemistry (4,4)
- 01:160:171 Introduction to Experimentation (1)
- 01:160:251 Analytical Chemistry (3)
- 01:160:307-308 Organic Chemistry (4,4) or 01:160:315-316 Principles of Organic Chemistry (4,4)
- 01:160:309-310 Organic Chemistry Laboratory (2,2) or 01:160:311,310 Organic Chemistry Laboratory (2,2) *†
- 01:160:327-328 Physical Chemistry (4,4) or 01:160:341-342 Physical Chemistry: Biochemical Systems (3,3) ‡
- 01:160:329 Experimental Physical Chemistry (2.5)
- 01:160:348 Instrumental Analysis (3) † or 01:160:344 Introduction to Molecular Biophysics Research (3) †
- 01:160:361 Chemical Bonding (1.5)
- 01:160:371 Inorganic Chemistry (3)
- 01:160:491-492 Seminar in Chemistry (1,1)
- 01:640:151-152 Calculus for Mathematical and Physical Sciences (4,4)
- 01:640:250 Introductory Linear Algebra (3) *
- 01:640:251 Multivariable Calculus (4)
- 01:750:203-204 General Physics (3,3) †
- 01:750:205-206 General Physics Laboratory (1,1) †

* This course requires a substitute course in option E.

† This course requires a substitute course in option F.

‡ This course is recommended in option C.

Core Option (A). For students who plan to seek immediate employment as chemists, and who do not seek certification by the American Chemical Society.

Required: Core courses

General ACS Option (B). For students who seek to find immediate employment as chemists, or who plan to attend graduate or medical school. Leads to a degree certified by the American Chemical Society.

Required: In addition to the core courses, 4 credits of senior-level research, one term of biochemistry [01:694:407 Molecular Biology and Biochemistry (3) or 11:115:403 General Biochemistry (3)], and one advanced course in chemistry.

Chemical Biology Option (C). For students whose interests are in the application of chemistry to the solution of biological problems. Appropriate for students who plan to attend graduate school in chemistry or related biological sciences or medical school, or who plan to seek immediate employment. Leads to a degree certified by the American Chemical Society.

Required: In addition to the core courses, 4 credits of senior-level research, one term of biochemistry [01:694:407 Molecular Biology and Biochemistry (3) or 11:115:403 General Biochemistry (3)], and one course from the following:

- 01:160:418 Bioorganic Mechanisms (3) or 11:115:412 Protein and Enzyme Chemistry (3)
- 01:160:437 Physical Chemistry of Biological Systems (3) or 11:115:410 Physical Biochemistry (3)
- 01:160:476 Bioinorganic Chemistry (3)
- 01:694:408 Molecular Biology and Biochemistry (3) or 11:115:404 General Biochemistry (3)
- 30:715:409 Medicinal Chemistry (3)

Environmental Option (D). For students whose interests are in the application of chemistry to environmental problems, who plan to seek employment in environmentally related areas, or who plan to attend graduate school. Leads to a degree certified by the American Chemical Society if one additional course in biochemistry is taken [01:694:407 Molecular Biology and Biochemistry (3) or 11:115:403 General Biochemistry (3)].

Required: In addition to the core courses, 4 credits of senior-level research and two courses from the following:

- 01:160:415 Theory and Interpretation of Organic Spectra (3)
- 01:160:439 Physical Chemistry of the Environment (3)
- 01:160:451 Analytical Spectroscopy (3)
- 11:375:416 Chemical Reactions in the Environment (3)
- 11:375:422 Air Sampling and Analysis (3)
- 11:375:425 Radioactivity and the Environment (3)
- 11:375:444 Water Chemistry (3)
- 11:375:451 Soil Chemistry (4)
- 01:460:401 Introduction to Geochemistry (4)
- 01:460:417 Environmental Geochemistry (3)
- 11:628:472 Chemical Oceanography (4)

Business/Law Option (E). For students who seek business or law careers that require a scientific background. Appropriate for those seeking nonlaboratory employment in industry as well as those planning to attend graduate school in business or law.

Required substitutions in the core curriculum: For the following two courses from the list of core courses, 01:160:310 Organic Chemistry Laboratory (2) and 01:640:250 Intro-

ductory Linear Algebra (3), substitute three business or business-related courses. One of the three courses must be chosen from the following:

- 33:010:272 Introduction to Financial Accounting (3)
- 01:355:302 Scientific and Technical Writing (3)
- 01:830:373 Organizational and Personnel Psychology (3)

The remaining courses must be at the 200 level or above and offered in accounting, communication, economics, finance, management, or marketing. Students electing this option should consult with the vice chair of the undergraduate program in chemistry as early as possible for assistance in selecting the courses for the option and in meeting professional or graduate school requirements.

Chemical Physics Option (F). For students whose interests are in chemical physics and who plan to attend graduate school.

Required substitutions in the core curriculum: For 01:750:203-204 General Physics (3,3), substitute *either* 01:750:123-124 Analytical Physics (2,2) *and* 01:750:227-228 Analytical Physics IIA, IIB (3,3) *or* 01:750:271-272-273 Honors Physics (3,3,3). For 01:750:205-206 General Physics Laboratory (1,1), substitute *either* 01:750:229-230 Analytical Physics II Laboratory (1,1) *or* 01:750:275-276 Classical Physics Laboratory (1,1). For 01:160:310 Organic Chemistry Laboratory (2) *and* 01:160:348 Instrumental Analysis (3), substitute 01:640:252 Elementary Differential Equations (3) *and* 01:750:381 Mechanics (3) *and* 01:750:385 Electromagnetism (3).

Students who choose the Chemical Physics option only after having taken 01:750:203-204 General Physics and 01:750:205-206 General Physics Laboratory normally should take 01:750:323 Advanced General Physics before enrolling in either 01:750:381 Mechanics or 01:750:385 Electromagnetism. A physics adviser should be consulted if there is uncertainty about the proper preparation for any physics course in this option.

Required advanced courses: Two courses chosen from the following:

- 01:160:421 Atomic and Molecular Structure (3) or 01:750:361 Quantum Mechanics and Atomic Physics (3)
- 01:160:425 Thermodynamics I (3)
- 01:160:434 Kinetics (3)
- 01:750:406 Introductory Solid State Physics (3)
- 01:750:417 Intermediate Quantum Mechanics (3)

Two terms of senior-level research of at least 3 credits each may be used as a substitute for one advanced course.

The major in chemistry provides an excellent basis for those students who wish to teach in secondary school. Additional requirements for students interested in certification as teachers are set by the Graduate School of Education, which should be consulted for details.

Those students whose needs are not met by any of these options may plan an individual program through consultation with a departmental adviser. Individual programs require written approval of the department chairperson.

Minor Requirements

A core of courses is required for the minor in chemistry. The core includes general introductory and organic chemistry. Additional laboratory work and upper-level courses in either inorganic or physical chemistry are required for completion of the minor.

Required Core Courses

The following courses are required of all chemistry minors:

- 01:160:161-162 General Chemistry (4,4) or 01:160:163-164 Honors General Chemistry (4,4)
- 01:160:171 Introduction to Experimentation (1)
- 01:160:307-308 Organic Chemistry (4,4) or 01:160:315-316 Principles of Organic Chemistry (4,4)

Inorganic Chemistry Option

The following courses are required for the inorganic chemistry option:

- 01:160:311 Organic Chemistry Laboratory (2) or 01:160:309 Organic Chemistry Laboratory (2)
- 01:160:361 Chemical Bonding (1.5)
- 01:160:371 Inorganic Chemistry (3)

Physical Chemistry Option

The following courses are required for the physical chemistry option:

- 01:160:311 Organic Chemistry Laboratory (2) or 01:160:309 Organic Chemistry Laboratory (2) or 01:160:251 Analytical Chemistry (3)
- 01:160:327-328 Physical Chemistry (4,4) or 01:160:341-342 Physical Chemistry: Biochemical Systems (3,3)

Departmental Honors Program

To qualify, a student must have attained, at the end of the junior year, a cumulative grade-point average of 3.0 and a grade-point average of at least 3.4 in courses required for the major. Preferably by the end of the junior year, but no later than the first week of the senior year, the student should apply formally to the chemistry undergraduate executive officer for admittance to the chemistry honors program. A student with an undergraduate cumulative grade-point average of at least 3.0 and a grade-point average between 3.0 and 3.4 in courses required for the major also may be admitted upon review by the Undergraduate Research and Honors Committee. Accepted candidates are expected to complete at least 3 credits per term in an independent research project (01:160:497-498), to write a paper on their research, and to make an oral presentation at the end of the senior year.

Courses**01:160:110. FRONTIERS OF CHEMISTRY (1.5)**

For the nonscientist, topics currently at the forefront of chemical research and their social implications. Presented by experts in layman's terms. Recombinant DNA, chemistry of planets, chemical approaches to the harnessing of solar energy, chemical basis of disease, and drug action.

01:160:111. CHEMISTRY OF DRUGS (1.5)

For nonscientists, a nontechnical chemical approach to the drug phenomenon in our world. Topics include oral contraceptives, psychedelics, stimulants, and depressants.

01:160:127. IMPACT OF CHEMISTRY (3)

Intended primarily for students majoring in social sciences and humanities. Relation of chemistry to human life, culture, and everyday decisions. Case studies used to illustrate chemical principles and examine issues of current concern, such as global warming, drug testing, ozone depletion, and heavy-metal poisoning.

01:160:128. CHEMISTRY OF LIFE (3)

Does not make a sequence with 01:160:161.

Topics chosen from fields of organic chemistry and biochemistry including proteins, DNA, RNA, and chemical origins of life. Emphasis given to nature of chemical and biochemical discoveries and the social responsibility of scientists.

01:160:133. PREPARATION FOR GENERAL CHEMISTRY (2)

Prerequisites: 01:640:026 or equivalent and permission of instructor.

Beginning after five weeks of the term for students who start General Chemistry and encounter serious difficulties. Fall term only.

01:160:134. INTRODUCTION TO CHEMISTRY (3)

Prerequisites: 01:640:026 or equivalent and permission of instructor.

For students who are advised that they are not ready to undertake General Chemistry. Students who have taken higher-level chemistry courses for science majors are not eligible. Fall term only.

01:160:140. THE GREENHOUSE EFFECT (3)

Lec. 2 hrs., lab. 1.5 hrs. For nonscience majors; not for major credit in science and engineering. Credit not given for both this course and 01:450:140, 01:556:140, or 01:750:140.

The physical and chemical bases of the "greenhouse effect" and its global impact: biological, climatic, economic, and political. Reducing the emission of "greenhouse" gases; nuclear energy and other alternative energy sources.

01:160:159-160. GENERAL CHEMISTRY FOR ENGINEERS (3,3)

Lec. 2 hrs., rec. 1 hr. Prerequisite for 159: 01:640:026 or equivalent.

Pre- or corequisite for 160: 01:160:171.

Introduction to chemical principles and their application. Includes stoichiometry, states of matter, atomic and molecular structure, solutions, thermodynamics, equilibrium, oxidation-reduction, kinetics, nonmetals, metals and coordination compounds, and nuclear chemistry.

01:160:161-162. GENERAL CHEMISTRY (4,4)

Lec. 3 hrs., rec. 1 hr. Pre- or corequisite for 161: 01:640:111 or 115 or equivalent. Pre- or corequisite for 162: 01:160:171. Prerequisite for 162: 01:640:111 or 115 or equivalent. For science majors. Credit not given for both these courses and 01:160:163-164.

Introduction to chemical principles and their application. Topics include stoichiometry, states of matter, atomic and molecular structure, solutions, thermodynamics, equilibrium, oxidation-reduction, kinetics, nonmetals, metals and coordination compounds, and nuclear chemistry.

01:160:163-164. HONORS GENERAL CHEMISTRY (4,4)

Prerequisite: One year of high school chemistry. Corequisite for 163: 01:640:151 or permission of instructor. Pre- or corequisites for 164: 01:640:152 and 01:160:171 or permission of instructor. For students with a strong interest in chemistry and/or those considering majoring in a science or engineering discipline requiring a strong background in chemistry. Credit not given for both these courses and 01:160:161-162.

Covers topics of 01:160:161-162 in more depth. Material related to current research topics and other fields of scientific interest.

01:160:171. INTRODUCTION TO EXPERIMENTATION (1)

Lab. 3 hrs. Pre- or corequisite: 01:160:159, 161, or 163.

Laboratory illustrating basic chemical methods. Lab. fee required.

01:160:192. TOPICS IN CHEMISTRY (1.5)

Pre- or corequisites: 01:160:161 or 163 or advanced placement and permission of department. Enrollment limited to 20 students. Intended primarily for first-year students with a strong interest in chemistry.

Seminar on current applications of chemistry to real-world problems and issues. Practice in use of computational tools and the Internet in chemical applications.

01:160:209. ELEMENTARY ORGANIC CHEMISTRY (3)

Prerequisites: 01:160:127 and 128, 162, or 164. Not for major credit. Credit not given for both this course and 01:160:307-308.

Carbon compounds, including biologically and nutritionally interesting compounds, and textile polymers.

01:160:211. ELEMENTARY ORGANIC CHEMISTRY LABORATORY (1)

Lec. 3 hrs. Prerequisite: 01:160:171. Pre- or corequisite: 01:160:209.

Synthesis and analysis of organic compounds.

Lab. fee required.

01:160:251. ANALYTICAL CHEMISTRY (3)

Lec. 1.5 hr., lab. 4.5 hrs. Prerequisites: 01:160:171 and 160, 162, or 164.

Quantitative applications of gravimetric, volumetric, and instrumental methods of analysis to samples of environmental significance. Offered fall and spring terms.

Lab. fee required.

01:160:305-306. ORGANIC CHEMISTRY (3,3)

Lec. 3 hrs. Prerequisite: 01:160:160, 162, or 164. 01:160:305 does not substitute for 01:160:209. Credit not given for both 01:160:305-306 and 307-308 or 315-316.

Basic theory. Survey of structure, properties, and reactivity of main classes of compounds, including a number of biological interest.

01:160:307-308. ORGANIC CHEMISTRY (4,4)

Lec. 3 hrs., rec. 1 hr. Prerequisite: 01:160:160, 162, or 164. 01:160:307 does not substitute for 01:160:209. Credit not given for both 01:160:307-308 and 305-306 or 315-316.

Basic theory. Survey of structure, properties, and reactivity of main classes of compounds, including a number of biological interest.

01:160:309-310. ORGANIC CHEMISTRY LABORATORY (2.5,2.5)

Lec. 1 hr., lab. 4.5 hrs. Prerequisite for 309: 01:160:171. Pre- or corequisite for 309: 01:160:308 or 316. Prerequisites for 310: 01:160:309 or 311, and 308 or 316. The sequence 01:160:311, 310 is permissible. Open only to students majoring in chemistry, biochemistry, and chemical engineering, or by permission of instructor.

Develops proficiency in preparation and manipulation. Hands-on use of modern spectroscopic and chromatographic instrumentation (FT-NMR, FT-IR, GC, GCMS).

Lab. fee required.

01:160:311. ORGANIC CHEMISTRY LABORATORY (2)

Lec. 1 hr., lab. 4.5 hrs. Prerequisites: 01:160:171 and 307.

Develops facility in both preparation and manipulation and applies chromatographic and spectroscopic techniques to solutions of problems.

Lab. fee required.

01:160:313-314. ORGANIC CHEMISTRY LABORATORY (1,1)

Lec. 3 hrs. Prerequisites for 313: 01:160:171; 01:160:160, 162, or 164. Prerequisites for 314: 01:160:305 or 307 or 315, and 313. Pre- or corequisite for 313: 01:160:305 or 307 or 315. Pre- or corequisite for 314: 01:160:306, 308, or 316. 01:160:313-314 is equivalent to 01:160:311. Offered in summer only.

Develops proficiency in preparation and manipulation. Chromatographic and spectroscopic techniques applied to solutions of problems. Qualitative organic analysis.

01:160:315-316. PRINCIPLES OF ORGANIC CHEMISTRY (4,4)

Lec. 3 hrs., rec. 1 hr. Prerequisite: 01:160:160, 162, or 164. Corequisite for 316: 01:160:309. 01:160:209 does not substitute for 01:160:315. Credit not given for both 01:160:315-316 and 305-306 or 307-308. Recommended for students planning to pursue graduate work in chemistry, biochemistry, molecular biology, or medicine.

Survey of structure, properties, and reactivity of main classes of organic compounds with a focus on qualitative molecular orbital theory, reaction mechanisms, and synthesis.

01:160:323-324. PHYSICAL CHEMISTRY (3,3)

Prerequisites: 01:160:160, 162, or 164; 01:640:251. Pre- or corequisites: 01:750:203-204, or 227 and 228. Credit not given for both these courses and 01:160:327-328 or 341-342.

Fundamental principles of physical chemistry. Quantum theory, spectroscopy, statistical mechanics, thermodynamics, and kinetics.

01:160:327-328. PHYSICAL CHEMISTRY (4,4)

Lec. 3 hrs., rec. 1 hr. Prerequisites: 01:160:160, 162, or 164; 01:640:251. Pre- or corequisites: 01:750:203-204, or 227 and 228. Credit not given for both these courses and 01:160:323-324 or 341-342. Equivalent to 01:160:323-324 but includes a recitation.

Fundamental principles of physical chemistry. Quantum theory, spectroscopy, statistical mechanics, thermodynamics, and kinetics.

01:160:329. EXPERIMENTAL PHYSICAL CHEMISTRY (2.5)

Lec. 1 hr., lab. 4.5 hrs. Prerequisites: 01:160:251 and 323, 327, or 341.

Experiments in physical chemistry illustrating principles and techniques. Use of computers to process experimental data.

01:160:341-342. PHYSICAL CHEMISTRY: BIOCHEMICAL SYSTEMS (3,3)

Prerequisites: 01:160:160, 162, or 164; 01:640:251. Pre- or corequisites: 01:750:203-204, or 227 and 228. Credit not given for both these courses and 01:160:323-324 or 327-328.

Fundamental principles of physical chemistry: thermodynamics, ideal and nonideal solutions, chemical dynamics, catalysis, electrochemistry, phase equilibria. Biologically relevant examples and applications stressed.

01:160:344. INTRODUCTION TO MOLECULAR BIOPHYSICS RESEARCH (3)

Prerequisites: 01:160:309 and 323, 327, or 341, and permission of instructor.

Basic principles and methods of research, followed by a research project involving preparation of biopolymer analogs, X-ray crystallography, spectroscopy, calorimetry, computer simulation, and other relevant physical techniques. Description of research opportunities at the university available to undergraduates.

01:160:348. INSTRUMENTAL ANALYSIS (3)

Lec. one 80-minute period and one 5-hour lab. Prerequisite: 01:160:251.

Intended for chemistry majors.

Theory and practice of instrumental analysis, including electrochemistry, separations, and spectroscopy.

01:160:361. CHEMICAL BONDING (1.5)

Prerequisites: 01:160:305, 307, or 315 and 01:640:152 or equivalent.

Theories of ionic and covalent bonding. Elementary molecular orbital theory applied to simple molecules.

01:160:371. INORGANIC CHEMISTRY (3)

Prerequisites: 01:160:308, 361 or permission of instructor.

Introduction to the bonding, electronic structure, and chemical properties of transition metal and main group inorganic compounds.

01:160:391-392. INDEPENDENT STUDY IN CHEMISTRY (1-3,1-3)

Prerequisite: Permission of department. Not open to seniors.

Original problem under the direction of a member of the department. Written report required.

01:160:409. ORGANIC CHEMISTRY OF HIGH POLYMERS (3)

Prerequisites: 01:160:308 and 324, 328, or 342.

Introduction to the synthesis and reactions of macromolecules, free-radical polymerization, stereospecific polymerization, and stepwise polymerization.

01:160:410. INTRODUCTION TO MOLECULAR MODELING (3)

Prerequisites: 01:160:307-308 and 323-324 or equivalent.

Introduction to computer-assisted molecular modeling techniques for the study of chemical problems. Lectures on theoretical principles. Instruction in use of modern modeling programs. Computer projects involving solution of chemical problems.

01:160:411-412. ADVANCED ORGANIC CHEMISTRY (3,3)

Prerequisites: 01:160:308 and 324, 328, or 342.

Advanced survey of organic chemistry; structure and stereochemistry of organic molecules, chemistry of reactive intermediates, structure-reactivity relationships, molecular rearrangements, molecular orbital theory, and orbital symmetry correlations.

01:160:415. THEORY AND INTERPRETATION OF ORGANIC SPECTRA (3)*Prerequisites: 01:160:308 and 324, 328, or 342.*

Theory and interpretation of nuclear magnetic resonance, infrared, ultraviolet, and mass spectra.

01:160:418. BIOORGANIC MECHANISMS (3)*Prerequisites: 01:160:308 and 324, 328, or 342.*

Catalysis of organic reactions that are model systems for enzymatic processes. Emphasis on mechanisms of enzyme catalyzed reactions.

01:160:421. ATOMIC AND MOLECULAR STRUCTURE (3)*Prerequisites: 01:160:324, 328, or 342; 01:640:250 and 251 or equivalent.*

Introduction to quantum mechanics and statistical mechanics. Elementary solutions of the Schrödinger wave equation; valence bond and molecular orbital theory; Boltzmann distribution; partition functions.

01:160:422. STATISTICAL MECHANICS (3)*Prerequisites: 01:160:324, 328, or 342; 01:640:250 and 251 or equivalent.*

Basic concepts and methods of equilibrium statistical mechanics. Applications to systems and phenomena of chemical interest, including ideal and real gases, chemical equilibria, phase transitions, classical liquids, and polymer solutions. Use of Monte-Carlo and molecular dynamics simulations to solve problems of current interest.

01:160:425. THERMODYNAMICS I (3)*Prerequisites: 01:160:327-328 or equivalent.*

Principles of classical and statistical thermodynamics, treated in an integral manner; interrelations of molecular properties with the energy and entropy of macroscopic systems. Applications include phase changes and chemical reactions.

01:160:426. THERMODYNAMICS II (3)*Prerequisite: 01:160:425.*

Application of thermodynamics to solutions of nonelectrolytes and electrolytes.

01:160:433. CHEMICAL APPLICATION OF GROUP THEORY (3)*Prerequisite: 01:160:421 or permission of instructor.*

Aspects and consequences of molecular symmetry; point groups and character tables; group theory and quantum mechanics; symmetry aspects of the electronic structure in organic and inorganic molecules; selection rules for electronic and vibrational spectroscopy; ligand field theory.

01:160:434. KINETICS (3)*Prerequisite: 01:160:324, 328, or 342 or equivalent.*

Chemical reaction rates in homogeneous systems and at interfaces. Experimental and mathematical methods of elucidating reaction mechanisms. Photochemical and ultrafast reactions.

01:160:437. PHYSICAL CHEMISTRY OF BIOLOGICAL SYSTEMS (3)*Prerequisite: 01:160:324, 328, or 342 or equivalent. Recommended:**11:115:403,404 or 01:694:407,408 previously or concurrently.*

Introduction to the physical chemistry of proteins, nucleic acids, and their complexes. Forces that determine biopolymer structure. Principles of protein and nucleic acid structure. Transitions and interactions of biopolymers.

01:160:438. INTRODUCTION TO COMPUTATIONAL CHEMISTRY (3)*Prerequisite: 01:160:324, 328, or 342 or permission of instructor.*

Solution of chemical problems using computer and graphics equipment. Applications to molecular structure and reactivity, conformational analysis, molecular interactions, and dynamics.

01:160:439. PHYSICAL CHEMISTRY OF THE ENVIRONMENT (3)*Prerequisite: 01:160:324 or 328 or equivalent.*

Application of physical chemical principles to environmental problems.

01:160:446. CHEMICAL SEPARATIONS (3)*Prerequisite: 01:160:324 or 328 or equivalent.*

The principles of chemical separations by various chromatographic techniques.

01:160:451. ANALYTICAL SPECTROSCOPY (3)*Prerequisites: 01:160:324 or 328, and a course in analytical chemistry.*

Theory of spectroscopy and spectrophotometry, including the analytical applications of spectrochemical methods.

01:160:471. ADVANCED INORGANIC CHEMISTRY (3)*Prerequisites: 01:160:371 and 421, or equivalent.*

Advanced treatment of bonding, electronic-spectral, magnetic, and chemical properties of transition metal complexes.

01:160:475. ORGANOMETALLIC CHEMISTRY (3)*Prerequisites: 01:160:308, 324 or 328, 371.*

A detailed survey of the mechanisms of organometallic reactions.

01:160:476. BIOINORGANIC CHEMISTRY (3)*Prerequisite: 01:160:371 or equivalent.*

Spectroscopic, chemical, and other properties of metal-containing biological systems such as hemoglobin, vitamin B₁₂, carboxypeptidase, etc.

01:160:487,488. SPECIAL TOPICS IN CHEMISTRY (3,3)*Prerequisite: Permission of instructor.*

Study of selected areas in chemistry.

01:160:491-492. SEMINAR IN CHEMISTRY (1,1)*Open only to seniors.*

Development of communication skills needed by professionals in chemistry and related fields. Oral reports, discussions of topics of current interest, journal club, poster sessions. Introduction to the chemical research literature.

01:160:493-494. INTERNSHIP IN CHEMISTRY (1,1)*Corequisites: 01:160:491-492. Open only to seniors. Graded Pass/No Credit.*

Work in chemistry with a designated community partner; an appropriately designed academic project resulting in a written and/or oral report.

01:160:495-496. SENIOR RESEARCH PROJECT: CHEMISTRY (1-6,1-6)*Prerequisite: Permission of department. Open only to seniors.*

Research on original problem under the direction of a member of the department. Written report and one oral or poster presentation required.

01:160:497-498. HONORS RESEARCH IN CHEMISTRY (3-6,3-6)*Prerequisite: Permission of department. Open only to senior honors students.*

Research on original problem under the direction of a member of the department. Written report and one oral presentation required.

CHINESE 165

(See also Asian Studies 098 and East Asian Languages and Area Studies 214)

Department of Asian Languages and Cultures, Faculty of Arts and Sciences

Web Site: <http://www.rci.rutgers.edu/~easian/east>

Chairperson: Ching-I Tu

Professors:

Ching-I Tu, B.A., National Taiwan; Ph.D., Washington

Ban Wang, B.A., M.A., Beijing Foreign Studies, Ph.D., California (Los Angeles)

Associate Professor:

Richard VanNess Simmons, B.A., Ph.D., Washington

Assistant Professor:

Dietrich Tschanz, M.A., Zurich; Ph.D., Princeton

Adjunct Faculty:

Kuang-Yu Chen, B.Sc., National Taiwan; Ph.D., Yale

Major Requirements

The major in Chinese requires 24 credits in courses taught in Chinese beyond the intermediate level, including courses in both modern and literary Chinese. Chinese majors are strongly urged to take courses in English, comparative literature, linguistics, economics or business, and courses on China offered by other departments.

Minor Requirements

The minor in Chinese consists of six courses of 3 or more credits beyond the elementary level, in both modern and literary Chinese. Of the six courses, at least three must be at the 300 or 400 level, and must be chosen from those acceptable for the major.

Departmental Honors Program

To qualify, a student must have a cumulative grade-point average of 3.0 or better and a grade-point average of 3.4 or better in the major at the end of the junior year. At that time, the student should formally apply to the chairperson for admission to the honors program. In addition to completing all requirements of the Chinese major, candidates are required to register for 01:165:497-498 Honors in Chinese, write an honors paper under the guidance of an assigned faculty member, and take a comprehensive examination at the end of the senior year.

Courses in English

01:165:111,112. CHINESE CALLIGRAPHY (2,2)

No previous knowledge of Chinese necessary. For Chinese language students, recommended to be taken simultaneously with 01:165:101,102.

Principles, techniques, and art of Chinese calligraphy; techniques of using the Chinese writing brush, writing styles, and construction of Chinese characters.

01:165:125. INTRODUCTION TO CHINESE CIVILIZATION (3)

Material and cultural achievements of Chinese civilization, including such areas as the fine arts, literature, religion, and thought.

01:165:210. CHARACTERISTICS OF THE CHINESE LANGUAGE (3)

Phonology, grammar, and the writing system of Mandarin Chinese; brief discussion of other major dialects of China; the influence of the Chinese language on Asian languages; the role of language in Chinese culture.

01:165:220. CHINESE CLASSICS AND THOUGHT: I-CHING, TAOISM, AND CONFUCIANISM (3)

Introduction to the *I-Ching* or *Book of Changes*, Taoism, Confucianism, and Chinese Buddhism, with emphasis on their origins and interrelations, their influence on Chinese culture, and on their values in the modern world.

01:165:241. CHINESE LITERATURE IN TRANSLATION I: PROSE AND POETRY (3)

Chinese literature from early times to the 14th century, with emphasis on poetry and on both philosophical and historical prose.

01:165:242. CHINESE LITERATURE IN TRANSLATION II: POPULAR FICTION AND DRAMA (3)

Chinese literature from the 14th century to the present, with emphasis on novels, short stories, and drama.

01:165:262. THE CHINESE CINEMA (3)

Cinematic developments in China in the past two decades. Topics reflecting the emergence of a new aesthetic, and recent political, social, and cultural changes.

01:165:264. CHINESE DRAMA AND PERFORMING ARTS (3)

Survey of Chinese dramatic performance from traditional times to the present, including opera, storytelling, and shadow plays, focusing on regional origins and variations.

01:165:310. TWENTIETH-CENTURY CHINESE LITERATURE IN TRANSLATION (3)

Chinese interests from the 1920s to the present, with emphasis on themes of identity and national crisis.

01:165:341,342. MAJOR TRADITIONS IN CHINESE THOUGHT (3,3)

Rise and development of pristine Confucianism, Mohism, Taoism, Legalism, the School of Names, Sinicized Buddhism, and Neo-Confucianism; their influences on Chinese civilization, their reevaluation in the light of new tendencies of thought after contact with the West.

Courses in Chinese

01:165:101,102. ELEMENTARY CHINESE (4,4)

Introduction to sounds, structure, and writing system of modern Chinese (Mandarin); practice in speaking and reading.

01:165:121. INTENSIVE READING AND WRITING IN CHINESE (3)

Credit not given for both this course and 01:165:101 or 102. Prerequisite: Speaking proficiency in Chinese.

Development of reading and writing skills to the level of proficiency required for Intermediate Chinese. Learn 600 characters.

01:165:201,202. INTERMEDIATE CHINESE (4,4)

Prerequisite: 01:165:102 or equivalent.

Development of language skills: vocabulary building, oral proficiency, listening, and reading comprehension.

01:165:205. INTERMEDIATE CHINESE IN CHINA (4)

Prerequisite: 01:165:102 or equivalent.

Consolidation and development of elementary Chinese conversation, reading, and writing skills through immersion in a Chinese setting on site in China. Topics and activities related to Chinese society and culture.

01:165:222. INTENSIVE READING AND WRITING IN CHINESE II (3)

Prerequisite: 01:165:121 or equivalent. Credit not given for both this course and 01:165:201 or 202.

Continuation of 01:165:121 for development of reading and writing skills to the level of proficiency required for Advanced Chinese.

01:165:301,302. ADVANCED MODERN CHINESE (3,3)

Prerequisite: 01:165:202 or equivalent.

Readings in a variety of literary styles with introduction to simplified characters; written and oral exercises.

01:165:305. ADVANCED CHINESE IN CHINA (4)

Prerequisite: 01:165:202 or 222 or equivalent.

Consolidation and development of intermediate to advanced Chinese conversation, reading, and writing skills through immersion in a Chinese setting on site in China. Topics and activities related to Chinese society and culture.

01:165:321,322. INTRODUCTION TO LITERARY CHINESE (3,3)

Prerequisite: 01:165:202 or 222 or equivalent.

Grammatical analysis of *wen-yen*, or literary Chinese, and reading of simple texts in semiclassical and classical Chinese.

CINEMA STUDIES

01:165:325. ADVANCED CHINESE GRAMMAR (3)

Prerequisite: 01:165:202 or 222 or equivalent.

Analysis and discussion of Chinese grammar. Explanation of linguistic concepts through problem-solving exercises on Chinese word formation, sentence grammar, and paragraph structure.

01:165:361. BUSINESS CHINESE (3)

Prerequisite: 01:165:301 or 321 or equivalent.

Fundamental principles governing commercial organizations and foreign trade in China, Taiwan, Hong Kong, and other Chinese-speaking regions in East Asia; practice in business correspondence.

01:165:362. BUSINESS CHINESE II (3)

Prerequisite: 01:165:361 or equivalent.

Continuation of 01:165:361 with emphasis on practice in advanced business correspondence.

01:165:371. CONTEMPORARY EXPOSITORY CHINESE (3)

Prerequisite: 01:165:301 or 321 or equivalent.

Reading and discussion of selections from scholarly writings on history, philosophy, and political and social issues in modern Chinese prose. Analysis of structural pattern and practice in writing.

01:165:401. ADVANCED CHINESE CONVERSATION AND COMPOSITION (3)

Prerequisite: 01:165:302 or 322 or equivalent.

Practice of speech conversation, discussion, and composition in Mandarin Chinese; exercises in Chinese grammar and rhetoric.

01:165:402. ADVANCED CHINESE CONVERSATION AND COMPOSITION II (3)

Prerequisite: 01:165:401 or equivalent.

Continuation of 01:165:401 with emphasis on composition and speech making in Mandarin Chinese and exercises in Chinese grammar and rhetoric.

01:165:410. THE CHINESE NOVEL (3)

Prerequisite: 01:165:302 or 322 or equivalent.

Analysis of such classic Chinese novels as *San-kuo yen-i* (The Romance of the Three Kingdoms), *Shui-hu chuan* (Water Margin), *Hsi-yu-chi* (Monkey), and *Hung-lou meng* (Dream of the Red Chamber).

01:165:412. CHINESE POETRY (3)

Prerequisite: 01:165:302 or 322 or equivalent.

Reading, analysis, and discussion of Chinese poetry in various forms from the classical period to the present.

01:165:419,420. READINGS IN CLASSICAL CHINESE LITERATURE (3,3)

Prerequisite: 01:165:302 or 322 or equivalent.

Such major literary works as *Shih-ching*, *Mencius*, *Shih-chi*, T'ang poetry, Sung tz'u, Yuan drama, and Ming-Ch'ing fiction.

01:165:424. THE ORIGIN AND DEVELOPMENT OF CHINESE WRITING (3)

Pre- or corequisite: 01:165:302 or 322 or equivalent.

Investigation of the early evolution of Chinese writing within the context of the beginnings of Chinese civilization. Emphasis on textual understanding of the oracle bone inscriptions of the Shang period (ca. 1700 to 1100 B.C.).

01:165:425. CHINESE DIALECTS (3)

Prerequisite: 01:165:302 or 322 or equivalent.

Introduction to and description of Chinese dialects with an emphasis on their relationships, historical origins, and development from earliest evidence of diversity to present.

01:165:451,452. READINGS IN MODERN CHINESE LITERATURE (3,3)

Prerequisite: 01:165:302 or 322 or equivalent.

Selections from representative literary, historical, and ideological works of modern China; emphasis on stylistic and linguistic variations.

01:165:490. SEMINAR IN CHINESE LITERATURE AND THOUGHT (3)

Prerequisite: Permission of instructor.

Readings and research on topics in Chinese literature and thought of either the classical or modern period.

01:165:493,494. INDEPENDENT STUDY (3,3)

Prerequisites: Permission of instructor and department.

Supervised independent reading and study of a topic selected by the student and approved by the instructor.

01:165:497-498. HONORS IN CHINESE (6,6)

Both terms must be completed to receive credit.

CINEMA STUDIES 175

Faculty of Arts and Sciences

Program Director: Alan Williams, French; Ph.D., SUNY (Buffalo)

Faculty:

Louise Barnett, *English; Ph.D., Bryn Mawr College*

John Belton, *English; Ph.D., Harvard*

Louise Duus, *American Studies; Ph.D., Minnesota*

Leslie Fishbein, *American Studies; Ph.D., Harvard*

Sandy Flitterman-Lewis, *English; Ph.D., California (Berkeley)*

Angus Gillespie, *American Studies; Ph.D., Pennsylvania*

Hildburg Herbst, *German; Ph.D., Princeton*

Richard Koszarski, *English; Ph.D., New York*

David Marsh, *Italian; Ph.D., Harvard*

Susan Martin-Márquez, *Spanish and Portuguese; Ph.D., Pennsylvania*

Albert G. Nigrin, *Humanities and Communication; M.F.A., Rutgers*

Gerald Pirog, *Chinese, Comparative Literature, and Slavic Languages; Ph.D., Yale*

Michael A. Rockland, *American Studies; Ph.D., Minnesota*

Martha Rossler, *Visual Arts; M.F.A., California (San Diego)*

Adolf Snaidas, *Spanish and Portuguese; Ph.D., Rutgers*

Minor Program

The interdisciplinary minor in cinema studies consists of seven courses distributed as follows: (1) three required courses, 01:354:201, 202 (01:354:210 may be substituted for either 01:354:201 or 202), and 01:175:425 (01:354:420 may be substituted for 01:175:425); (2) four courses from the list below, two of which must be selected from category A and two additional courses from category A or B. A minimum of three courses must be at the 300 level or above.

Students pursuing a minor in cinema studies must select five courses for the minor that are outside their major. Exception: English literature majors who pursue a cinema studies minor may include more than two 01:354 courses in their minor program, but only two of those may be counted toward the major. Students who select the film option for the English major may not pursue a minor in cinema studies.

Category A

01:354:210 Close Readings of Cinema (3)

01:354:315,316 American Cinema I,II (3,3)

01:354:320,321 World Cinema I,II (3,3)

01:354:330,331 Critical Methodology in Film (3,3)

01:354:370 Film Genres (3)

01:354:375 Film and Society (3)

01:354:385 Theories of Women and Film (3)

01:354:420 Seminar: Film Theory (3)

01:420:305,306 The French Film in English (3,3)

01:860:337 Ideology and the Construction of Fact (3)

Category B

01:014:132 Black Experience and Film Medium (3)

01:050:262 American Film and American Myth (3)

01:354:308 Screenwriting (3)

- 01:354:312 Cinema and the Arts (3)
- 01:354:350,351 Major Filmmakers (3,3)
- 01:354:373 The Documentary (3)
- 01:354:391,392 Special Topics in Film Studies (3,3)
- 01:420:371,372 Topics in French Cinema (3,3)
- 01:470:349 Contemporary German Cinema (3)
- 01:470:350 The Nazi Period in Film (3)
- 01:506:241 Film and History (3)
- 11:554:346 Environmental Documentation in Photography, Film, and Video (3)
- 01:730:364 Aesthetics of Film (3)
- 01:940:348 Latin American Cinema (3)

Courses

01:175:425. SENIOR SEMINAR IN CINEMA STUDIES (3)

Prerequisite: Permission of adviser. Also open to students not pursuing the minor.

One or more topics selected for their relevance to the interdisciplinary study of film. Emphasis on advanced problems and issues together with methodology and theory. Extended research paper required on a topic chosen in consultation with the instructor.

01:354:201. INTRODUCTION TO FILM (3)

Film study, with emphasis on basic concepts of film analysis (narrative, editing, mise-en-scène, sound) and the historical development of cinema as an institution.

01:354:202. INTRODUCTION TO FILM (3)

Film study, with emphasis on commercial cinema as an institution (genres, directors, stars) and on nonnarrative types of film (documentary, experimental).

01:354:210. CLOSE READINGS OF CINEMA (3)

Formal analyses of six or seven individual films; emphasis on visual track, sound track, and scenario-narrative construction.

01:354:420. SEMINAR: FILM THEORY (3)

Major developments in film theory from the silent era to the present; writings on film by Eisenstein, Kracauer, Bazin, Metz, Barthes, and others; practice in different methods to analyze films.

CLASSICS (Classical Humanities 190, Greek 490, Greek and Latin 492, Latin 580)

Department of Classics, Faculty of Arts and Sciences

Web Site: <http://classics.rutgers.edu>

Chairperson: T. Corey Brennan

Professors:

Lowell Edmunds, A.B., Harvard; M.A., California (Berkeley); Ph.D., Harvard
Thomas J. Figueira, B.A., Fordham; Ph.D., Pennsylvania

Associate Professors:

T. Corey Brennan, B.A., Pennsylvania; M.A., Oxford; Ph.D., Harvard
Sarolta A. Takács, B.A., California (Irvine); M.A., Ph.D., California (Los Angeles)

Assistant Professors:

Leah Kronenberg, A.B., A.M., Ph.D., Harvard
Kirk R. Sanders, B.A., Northwestern; M.A., Ph.D., Texas (Austin)

The department offers a major in classics with options in classical humanities, Greek, Greek and Latin, and Latin. Selected courses in history, philosophy, and art history also may count for credit toward the classics major. Students with a strong interest in ancient history may pursue the ancient history and classics option within the history major (see the History section of this catalog).

Minors are offered in ancient Greek, Latin, and classical humanities. For more information, consult the departmental web site (<http://classics.rutgers.edu>).

Major Requirements

Classics majors choose one of four options. Those who wish to concentrate on one or both ancient languages may choose an option in ancient Greek and Latin, ancient Greek, or Latin. The classical humanities option is for those who wish to pursue a general study of the history, literature, and culture of the classical world.

Classical Humanities Option (Classical Humanities 190).

A major who pursues the classical humanities option must complete 36 credits in the department. (Credits from approved classical humanities courses in other departments as specified in the undergraduate catalog may be counted among these.) The following are required of every major:

1. One course in the Greek or Latin language at the 200 level or above;
2. Two from among the following (both of which cannot emphasize exclusively the same culture):
 - 01:190:205 Greek Civilization
 - 01:190:206 Roman Civilization
 - 01:190:207 Greek and Roman Mythology
 - 01:510:201 Ancient Greece
 - 01:510:202 Ancient Rome
3. One of the following:
 - 01:190:310 Literature and Culture in Augustan Rome
 - 01:190:315 Latin Poets in English
 - 01:190:316 Byzantine Literature
 - 01:190:356 Oedipus: A Survey of the Myth from Antiquity to Freud
 - 01:190:377 The Hero in Ancient Greece and Rome
 - 01:190:381 Greek Drama in Translation
 - 01:190:391 Roman Drama in Translation
 - 01:190:411 Greek and Roman Satire
 - 01:190:488 Approaches to Greek Myth
4. Two from among the following (both of which cannot emphasize exclusively the same culture):
 - 01:190:326 Greek and Roman Religion
 - 01:190:328 Ancient Law in Action
 - 01:190:350 Greek Society
 - 01:190:372 Cities of the Classical World
 - 01:510:301 Early Greece
 - 01:510:302 Classical Greece
 - 01:510:303 Hellenistic World
 - 01:510:304 The Rise of the Roman Republic
 - 01:510:305 The Crisis of the Roman Republic
 - 01:510:306 Roman Empire
 - 01:510:307 The Roman World in Late Antiquity
5. At least three additional courses at the 300 level or above.

Greek Option (Greek 490). A student majoring in classics with emphasis on Greek must take 35 credits in the department, of which 26 credits must be in the ancient Greek language (including at least six courses at the 300 level or above).

Greek and Latin Option (Greek and Latin 492). A student majoring in classics with emphasis on Greek and Latin must take 35 credits in the department, of which 29 credits must be in the ancient Greek and Latin languages. The credits may be distributed between the two languages, but at least 11 credits must be taken in each language. At least six courses must be at the 300 level.

Latin Option (Latin 580). A student majoring in classics with emphasis on Latin must take 35 credits in the department, of which 26 credits must be in the Latin language (including at least six courses at the 300 level or above).

Minor Requirements

Classical Humanities. A minor in classical humanities requires a minimum of seven courses in the department. (Credits from approved classical humanities courses in other departments as specified in the undergraduate catalog may be counted among these.) The following are required of every minor:

- Two from among the following (both of which cannot emphasize exclusively the same culture):
 - 01:190:205 Greek Civilization
 - 01:190:206 Roman Civilization
 - 01:190:207 Greek and Roman Mythology
 - 01:510:201 Ancient Greece
 - 01:510:202 Ancient Rome
- At least three courses at the 300 level or above.

Teacher Certification

Classics majors interested in earning eligibility for teacher certification (K–12) in New Jersey should contact advisers in the Graduate School of Education and in the Department of Classics in their first year, or as soon as possible thereafter.

Departmental Honors Program

Honors in classics may be earned by eligible students who wish to work on a research project chosen with the help of an adviser. To qualify, students must have a cumulative grade-point average of 3.0 or better and a grade-point average in the major of 3.4 or better at the end of the junior year. At that time, students should apply formally to the undergraduate director. Candidates for honors enroll in 01:190:495,496 (8 credits) in the senior year, and should discuss their projects with their advisers by the end of the first term of the junior year.

Courses in Classical Humanities (190)

Courses in classical humanities are open to students without a knowledge of the Greek or Latin language.

01:190:101. WORD POWER (3)

Systematic study of the basic Greek and Latin derivatives in English. Emphasis is on Greek and Latin elements in current scientific and literary use.

01:190:102. MEDICAL TERMINOLOGY (1.5)

May be taken concurrently with 01:190:101.

Systematic study of scientific terminology based on ancient Greek and Latin elements, with emphasis on the field of medicine.

01:190:202. MEDICAL AND BIOLOGICAL TERMINOLOGIES (3)

Study of Greek and Latin origins of medical and biological terms. Analysis of stems, prefixes, and suffixes. Historical background of terminological development.

01:190:205. GREEK CIVILIZATION (3)

Survey of Greek thought and literature. Readings include Homer, the lyric poets, the Athenian dramatists, and selected readings from historians and philosophers. Artistic material may be included.

01:190:206. ROMAN CIVILIZATION (3)

Surveys Roman thought and literature. Readings include Virgil, Ovid, Livy, Cicero, Tacitus, Petronius. Artistic material may be included.

01:190:207. GREEK AND ROMAN MYTHOLOGY (3)

Examination of the nature, meaning, and continued vitality of the principal classical myths through reading, lectures, and slide presentations.

01:190:208. PHILOSOPHY OF THE GREEKS (3)

Credit not given for both this course and 01:730:208.

Introduction to the major philosophical thinkers of the ancient Greek world with special emphasis on Plato and Aristotle.

01:190:300. GREEK AND ROMAN SLAVERY (3)

Social, economic, legal, and political aspects of slavery in ancient Greece and Rome. The sources and numbers of slaves, forms of servitude, manumission, slave labor.

01:190:309. GREEK AND ROMAN ATHLETICS (3)

Examines the ideology and cultural context of ancient athletic competition. Topics include the Olympic and other Panhellenic games, Roman chariot-racing and gladiator combat, women athletes.

01:190:310. LITERATURE AND CULTURE IN AUGUSTAN ROME (3)

Prerequisite: One course in Roman history or culture or in Latin. Course meets once each week jointly with students enrolled in 01:580:310 during the lecture period scheduled for that course and once separately. Students may not receive credit for both 01:190:310 and 01:580:310. Students wishing to earn language credit in Latin should enroll in Latin 01:580:310.

The cultural renaissance under Augustus (44 B.C.–A.D. 14): the writings of Virgil, Horace, Livy, Ovid, and the elegiac poets; the building program at Rome; artistic trends.

01:190:312. THE SEARCH FOR THE HISTORICAL SOCRATES (3)

Prerequisite: One course in ancient Greek history, culture, or philosophy, or permission of instructor. Course is jointly taught with 01:490:312. Students wishing to earn language credit in Greek should enroll in 01:490:312. Students may not receive credit for both 01:190:312 and 01:490:312.

Portraits of Socrates in Plato, Xenophon, Aeschines of Sphettus, and Aristophanes. Birth of the philosophical dialogue and other genres; life and thought of Socrates; later Socratic movements.

01:190:315. LATIN POETS IN ENGLISH (3)

Prerequisite: One year of Latin or permission of instructor.

Selections from the Augustan poets Horace, Virgil, and Propertius. Translations by Dryden, Ezra Pound, and others, with close reference to the Latin original. Theories of translation.

01:190:316. BYZANTINE LITERATURE (3)

Credit not given for this course and 01:165:101 or 102.

Key genres and works of Byzantine literature, late 6th through 15th century. Readings drawn from history, hagiography, poetry, theology, orations, romance, satire, and laments.

01:190:318. CLEOPATRA (3)

Examines the historical Cleopatra and the reception of her image from antiquity to the present in literature, art, and film. Issues considered include female power in a man's world, east versus west, and politics and propaganda.

01:190:320. WOMEN IN ANTIQUITY (3)

Credit not given for both this course and 01:510:251.

Women in the ancient societies of Greece and Rome. Their roles and images in the social, legal, political, domestic, philosophical, and artistic spheres examined using primary sources.

01:190:321. CLASSICAL RHETORIC (3)

Origins and development of rhetorical theory: persuasive argument, emotional appeal, good style, and delivery.

01:190:322. GREEK POLITICAL PHILOSOPHY (3)

Political philosophies of Plato and Aristotle, supplemented by readings in contemporary political philosophers.

01:190:325. CULTS, MAGIC, AND WITCHCRAFT (3)

Magic and witchcraft in the everyday life of antiquity, from pagan to Christian times; how individuals tried to control the unknown. Literary and material sources.

01:190:326. GREEK AND ROMAN RELIGION (3)

Study of pagan gods and goddesses, cults and practices of the classical Greek world, Roman Republic, and Roman Empire.

01:190:327. SCIENCE IN ANCIENT GREECE AND ROME (3)

Explores the nature and development of science in ancient Greece and Rome, focusing on medicine, biology, physics, and mathematics.

01:190:328. ANCIENT LAW IN ACTION (3)

Explores Greek and Roman constitutions and legal systems in their social contexts. Illustrates procedural elements of ancient criminal and civil law through mock trials.

01:190:350. GREEK SOCIETY (3)

Recommended: 01:510:201. Credit not given for both this course and 01:510:350. Social and economic life of the Greeks from the Mycenaean period through the Hellenistic age. Written and material evidence employed.

01:190:352. PLATO (3)

Prerequisite: One course in ancient Greek history, culture, or philosophy, or permission of instructor. May be jointly taught (in part) with 01:490:352. Students wishing to earn language credit in Greek should enroll in 01:490:352. Credit not given for both this course and 01:490:352 or 01:730:352.

Philosophy of Plato through close reading of selected dialogues, supplemented by relevant readings on other ancient and contemporary philosophers.

01:190:353. ARISTOTLE (3)

Prerequisite: One course in ancient Greek history, culture, or philosophy, or permission of instructor. May be jointly taught (in part) with 01:490:353. Students wishing to earn language credit in Greek should enroll in 01:490:353. Credit not given for both this course and 01:490:353.

Philosophy of Aristotle through his selected works, supplemented by relevant readings in Plato and in modern philosophers.

01:190:356. OEDIPUS: A SURVEY OF THE MYTH FROM ANTIQUITY TO FREUD (3)

Survey of the Oedipus myth in earliest, pre-Sophoclean evidence; in Greek and Roman tragedy; in the Middle Ages and the Renaissance; in the 19th and 20th centuries (with special emphasis on Oedipus in art and music).

01:190:372. CITIES OF THE CLASSICAL WORLD (3)

Study of urban development in antiquity, focusing on Athens and Rome, and synthesizing the evidence of literary, historical, and archaeological sources.

01:190:373. POMPEII: THE LIFE AND DEATH OF A ROMAN TOWN (3)

Prerequisite: One course in Roman history or culture, Latin or ancient art, or permission of instructor.

Pompeii and Herculaneum, as laboratories for the study of Roman life: the economy and society; public and private architecture, art, inscriptions; the birth of archaeology.

01:190:375. MASTERPIECES OF GREEK AND ROMAN ART (3)

Analyses of selected monuments of architecture, sculpture, and painting from 800 B.C. to A.D. 500. Emphasis on the development of style and the cultural significance of the monuments. Field trips to museums in the New York area.

01:190:377. THE HERO IN ANCIENT GREECE AND ROME (3)

Explores the ancient Greek and Roman hero from religious, mythical, and comparative narrative points of view. Readings drawn mostly from ancient sources.

01:190:381. GREEK DRAMA IN TRANSLATION (3)

Readings in English of the major Greek tragedies and comedies, with emphasis on the dramatic structure, literary analysis, and the theatrical conventions of the ancient stage.

01:190:391. ROMAN DRAMA IN TRANSLATION (3)

Readings in English of the comedies of Plautus and Terence and the tragedies of Seneca to emphasize the contributions of Latin authors to the dramatic genre and their influence on European and English drama.

01:190:411. GREEK AND ROMAN SATIRE (3)

Readings in English of classical satire from its origins in the Greek world through the fourth century A.D. Emphasis on the significance of ancient satire for comedy and satire in Western culture.

01:190:421. INDO-EUROPEAN ORIGINS OF THE CLASSICAL LANGUAGES (3)

Open only to advanced undergraduates in classics and linguistics and to graduate students with some knowledge of Latin and/or Greek.

Comparative survey of Latin and Greek grammar, with historical analysis of those features that the two languages share due to their common origin as Indo-European languages. Reference to the major characteristics of Indo-European languages in general.

01:190:431. SANSKRIT I (3)

Open only to upper-level undergraduate and graduate students.

Introduction to the grammatical system of the classical Sanskrit language; survey of basic features of Indo-European grammar, as manifested in Sanskrit.

01:190:432. SANSKRIT II (3)

Open only to upper-level undergraduate and graduate students.

Continuation of 01:190:431; extensive practice in translation and interpretation of texts from various genres and various periods of Old Indic literature.

01:190:488. APPROACHES TO GREEK MYTH (3)

Prerequisite: Completion of Greek and Roman Mythology 01:190:207 with a grade of B or higher or permission of the instructor.

Focuses on the main 20th- and 21st-century theories and methods of myth interpretation (myth-ritual; psychoanalytic; structuralist; narratological; Indo-European; comparative-folkloristic; comparative-iconographic; historical), illustrated by ancient examples.

01:190:491,492. INDEPENDENT STUDY IN CLASSICS (3,3)

Open only to juniors and seniors majoring in classics.

Directed reading and research on an assigned topic in classics under the supervision of a member of the department. An extensive essay required, reflecting in-depth research on the assigned topic.

01:190:495,496. HONORS PROJECT (4,4)

Open only to honors students in one of the fields in classics.

Independent or team projects resulting in a written paper, a performance, or some other appropriate form of public presentation such as drama, poetry, narrative prose, or museum excavation materials.

Classical Humanities Courses in Other Departments

01:082:301. ANCIENT ARCHITECTURE (3)**01:082:306. ROMAN ART (3)****01:082:342. EARLY GREEK ART (3)**

- 01:082:343. LATER GREEK ART (3)**
01:510:201. ANCIENT GREECE (3)
01:510:202. ANCIENT ROME (3)
01:510:205. BYZANTIUM: THE IMPERIAL AGE (3)
01:510:207. BYZANTIUM: THE LAST CENTURIES (3)
01:510:301. EARLY GREECE (3)
01:510:302. CLASSICAL GREECE (3)
01:510:303. HELLENISTIC WORLD (3)
01:510:304. THE RISE OF THE ROMAN REPUBLIC (3)
01:510:305. THE CRISIS OF THE ROMAN REPUBLIC (3)
01:510:306. ROMAN EMPIRE (3)
01:510:307. THE ROMAN WORLD IN LATE ANTIQUITY (3)
01:510:308. ANCIENT CULTURAL AND INTELLECTUAL HISTORY (3)
01:510:320. WOMEN IN ANTIQUITY (3)
01:510:350. GREEK SOCIETY (3)
01:510:403. ANCIENT WARFARE AND DIPLOMACY (3)
01:730:208. PHILOSOPHY OF THE GREEKS (3)
01:730:301. SOCRATES AND PLATO (3)
01:730:302. PLATO AND ARISTOTLE (3)
01:730:352. PLATO (3)
01:730:401. PLATO (3)
01:730:402. ARISTOTLE (3)
01:730:403. ANCIENT PHILOSOPHY AFTER ARISTOTLE (3)

Courses in Greek, Ancient (490)

- 01:490:101. ELEMENTARY GREEK I (4)**
 Intensive study of Greek grammar in conjunction with readings in simple Greek prose.
- 01:490:102. ELEMENTARY GREEK II (4)**
Prerequisite: 01:490:101 or permission of instructor.
 Continued study of Greek grammar in conjunction with readings.
- 01:490:207. CLASSICAL GREEK PROSE (3)**
Prerequisite: 01:490:102 or permission of instructor.
 Advanced review of Greek grammar through the reading of a work of Plato or several speeches of Lysias.
- 01:490:208. EURIPIDES (3)**
Prerequisite: 01:490:102 or permission of instructor.
 Study of fifth-century Athenian drama through the reading of a play of Euripides.
- 01:490:211. INTRODUCTION TO NEW TESTAMENT GREEK (3)**
Prerequisite: 01:490:102 or permission of instructor.
 Introduction to grammar and syntax of Greek in conjunction with readings from the Gospels, Acts, or Epistles.
- 01:490:304. ARISTOPHANES (3)**
Prerequisites: 01:490:207, 208 or permission of instructor.
 Reading of *Clouds* and of one other comedy; comparison of the Aristophanic with the Platonic Socrates; study of relation of Old Comedy to Athenian life.
- 01:490:305. GREEK DRAMA (3)**
Prerequisite: 01:490:207 or 208 or permission of instructor.
 Readings in the works of fifth-century Greek dramatists with special emphasis on Sophocles.
- 01:490:306. FROM ATHENS TO ALEXANDRIA (3)**
Prerequisite: 01:490:207 or 305 or permission of instructor.
 Major works of the literature of Greece from the fourth century B.C. into the Hellenistic Age.

- 01:490:308. GREEK HISTORICAL WRITINGS (3)**
Prerequisites: 01:490:207, 208 or permission of instructor.
 Readings of selected narratives in Herodotus and of main speeches, excursuses, and parts of Books six and seven of Thucydides. Comparative study of historical method.
- 01:490:309. LYRIC POETRY (3)**
Prerequisites: 01:490:207, 208 or permission of instructor.
 Survey of the main poets of the "lyric age" of Greece (Alcman, Sappho, Alcaeus, Archilochus, Solon, Theognis, Anacreon); reading of an ode of Pindar.
- 01:490:310. GREEK HEROIC POETRY (3)**
Prerequisites: 01:490:207, 208 or permission of instructor.
 Studies in the poetry and culture of Homeric Greece. Selections from the *Iliad* or *Odyssey*.
- 01:490:311. NEW TESTAMENT GREEK (3)**
 Selections from the Gospels, Acts, and Epistles supplemented by a review of grammar and syntax.
- 01:490:312. SOCRATIC LITERATURE (3)**
Prerequisite: 01:490:207 or 208 or permission of instructor. Course is jointly taught (in part) with 01:190:312. Credit not given for both this course and 01:190:312.
 Portraits of Socrates in Plato, Xenophon, Aeschines of Sphettus, and Aristophanes, with emphasis on the reading, in Greek, of selections from the writings of these authors.
- 01:490:315. MENANDER (3)**
Prerequisites: 01:490:207, 208 or permission of instructor.
 Study of *Dyskolos* and *Samia* as examples of "New Comedy"; their relation to Athenian life at the end of the fourth century.
- 01:490:335. GREEK PROSE COMPOSITION (3)**
Prerequisite: 01:490:207 or 208.
 Review of syntax, composition in Greek, and translation from English to Greek of continuous passages adapted from classical authors.
- 01:490:352. READINGS IN PLATO (3)**
Prerequisites: 01:490:207, 208 or permission of instructor. May be jointly taught (in part) with 01:190:352; separate meetings for readings in Greek. Credit not given for both this course and 01:190:352 or 01:730:352.
 Reading of one or more Platonic dialogues (or thematically related selections from several) in the original Greek.
- 01:490:353. READINGS IN ARISTOTLE (3)**
Prerequisites: 01:490:207, 208 or permission of instructor. May be jointly taught (in part) with 01:190:353; separate meetings for readings in Greek. Credit not given for both this course and 01:190:353.
 Reading of one or more treatises by Aristotle (or thematically related selections from several) in the original Greek.
- 01:490:391. READINGS IN GREEK PROSE (3)**
Prerequisites: 01:490:305, 306 or permission of instructor.
 Readings in selected ancient Greek prose authors or genres.
- 01:490:392. READINGS IN GREEK POETRY (3)**
Prerequisites: 01:490:305, 306 or permission of instructor.
 Readings in the works of selected Greek poets or poetic genres.
- 01:490:400. DEMOSTHENES (3)**
Prerequisites: 01:490:207, 208 or permission of instructor.
 Reading of one public and one private oration; study of Demosthenes as orator; as source for Athenian law, commerce, and private life; as statesman.
- 01:490:402. PLATO AND ARISTOTLE (3)**
Prerequisites: 01:490:207, 208 or permission of instructor.
 Reading of one Platonic dialogue followed by selected portions of an Aristotelian treatise. Attention to prose style and also to common problems and diverging solutions.

Courses in Latin (580)

01:580:101. ELEMENTARY LATIN I (4)

Beginning course in Latin, introducing the Latin language and its grammar and syntax.

01:580:102. ELEMENTARY LATIN II (4)

Prerequisite: 01:580:101 or permission of instructor.

Continued beginning instruction in Latin, introducing Latin language, grammar, and syntax.

01:580:203. INTERMEDIATE LATIN PROSE (3)

Prerequisite: 01:580:102 or permission of instructor.

Selections from prose authors of the late Republican and /or early Empire; e.g., Caesar, Cicero, Livy; development of skill in reading continuous passages of Latin prose.

01:580:204. INTERMEDIATE LATIN POETRY (3)

Prerequisite: 01:580:102 or permission of instructor.

Representative poems of Catullus, Horace, and Ovid, read and studied with a view to their style, imagery, and topicality. Introduction to Latin metrics.

01:580:302. MEDIEVAL LATIN (3)

Prerequisite: 01:580:203 or 204 or permission of instructor.

Readings in major Latin writings and documents of the Middle Ages.

01:580:303. CICERO: PHILOSOPHICAL WRITINGS (3)

Prerequisites: 01:580:203, 204.

Selected philosophical dialogues and rhetorical treatises of Cicero.

01:580:304. CICERO: ORATIONS (3)

Prerequisites: 01:580:203, 204.

Selected orations of Cicero, with emphasis on the development of Cicero's style and the significance of historical and biographical background.

01:580:310. PROSE AND POETRY IN THE AGE OF AUGUSTUS (3)

Prerequisite: 01:580:203 or 204 or permission of instructor. Course meets once each week jointly with students enrolled in 01:190:310 during the lecture period scheduled for that course and once separately. Students may not receive credit for both 01:190:310 and 01:580:310. Students wishing to earn language credit in Latin should enroll in Latin 01:580:310.

The cultural renaissance under Augustus (44 B.C.–A.D. 14), with emphasis on the reading, in Latin, of selections from the writings of Virgil, Horace, Livy, Ovid, and the elegiac poets.

01:580:321. ROMAN COMEDY (3)

Prerequisites: 01:580:203, 204.

Study of the principal meters, the theater, and the staging of plays through the reading of plays of Plautus and of Terence.

01:580:323. LUCRETIVUS (3)

Prerequisites: 01:580:203, 204.

Readings from Lucretius' *De Rerum Natura* with analysis of its place within the literary and philosophical traditions of Rome and Greece.

01:580:324. SALLUST (3)

Prerequisites: 01:580:203, 204.

Readings from Sallust's *Jugurthine War*, *Histories*, and *Catiline* with a study of selected problems from the historical periods relevant to those works.

01:580:325. THE HISTORY OF LIVY (3)

Prerequisites: 01:580:203, 204.

Readings from Livy's *Ab Urbe Condita* with a study of selected problems in Roman Republican history.

01:580:327. LATIN ELEGY (3)

Prerequisites: 01:580:203, 204.

Survey of Latin poetry written in elegiac meter, with selections from Catullus, Tibullus, Sulpicia, Propertius, and /or Ovid.

01:580:328. ROMAN SATIRE (3)

Prerequisites: 01:580:203, 204.

Selected poems of Horace, Martial, and Juvenal and a study of their interrelationship.

01:580:329. TACITUS (3)

Prerequisites: 01:580:203, 204.

Reading of a minor work of Tacitus and /or selections from the *Annals* of Tacitus with an investigation of their value as sources for Imperial history in the first century A.D.

01:580:335. LATIN PROSE COMPOSITION (3)

Prerequisites: 01:580:203, 204.

Review of syntax and prose style; composition in Latin and translation into Latin of continuous passages of prose.

01:580:369,370. THE SEMINAR IN LATIN (3,3)

Primarily for juniors and seniors majoring in classical humanities; open to others with permission of instructor.

Extensive and rapid reading in Latin literature from the early Republic to the Empire.

01:580:401. ADVANCED STUDY OF THE POETRY OF OVID (3)

Prerequisites: 01:580:203, 204.

Readings and interpretation of selected works of Ovid. A study of the poet's contribution to Roman literature and his importance in the Western literary tradition.

01:580:402. ADVANCED STUDY OF VERGIL'S *Aeneid* (3)

Prerequisites: 01:580:203, 204.

Readings of Vergil's *Aeneid* with an analysis of selected problems in its interpretation.

01:580:403. READINGS IN LATIN LITERATURE I: LITERATURE OF THE REPUBLIC (3)

Prerequisites: 01:580:203, 204.

Prose and poetry of Rome from its beginnings in the third century B.C. to the end of the Republic in the first century B.C. Extensive selections from epic, drama, lyric, elegy, pastoral, and other poetry and from history, rhetoric, and oratory.

01:580:404. READINGS IN LATIN LITERATURE II: LITERATURE OF THE EMPIRE (3)

Prerequisites: 01:580:203, 204.

Prose and poetry of imperial Rome. Extensive selections from epic, history, satire, the novel, and other genres, with emphasis on writers of the Augustan and Neronian ages.

01:580:407. ADVANCED STUDY OF THE POETRY OF HORACE (3)

Prerequisites: 01:580:203, 204.

Intensive reading of Horace's poems with emphasis on the variety of style and content.

COGNITIVE SCIENCE 185

Faculty of Arts and Sciences

Web Site: <http://ruccs.rutgers.edu>

Program Director: Karin Stromswold

Program Faculty:

Mark Baker, *Linguistics*, RuCCS; Ph.D., Massachusetts Institute of Technology
 Douglas DeCarlo, *Computer Science*, RuCCS; Ph.D., Pennsylvania
 Jacob Feldman, *Psychology*, RuCCS; Ph.D., Massachusetts Institute of Technology
 Jerry Fodor, *Philosophy*, RuCCS; Ph.D., Princeton
 C.R. Gallistel, *Psychology*, RuCCS; Ph.D., Yale
 Rochel Gelman, *Psychology*, RuCCS; Ph.D., California (Los Angeles)
 Lila Gleitman, RuCCS; Ph.D., Pennsylvania
 Alvin Goldman, *Philosophy*, RuCCS; Ph.D., Princeton
 Jane Grimshaw, *Linguistics*, RuCCS; Ph.D., Massachusetts
 Eileen Kowler, *Psychology*; Ph.D., Maryland
 Ernest Lepore, *Philosophy*, RuCCS; Ph.D., Minnesota
 Alan Leslie, *Psychology*, RuCCS; Ph.D., Oxford

L. Thorne McCarty, *Computer Science; J.D., Harvard Law School*
 Thomas Papathomas, *Biomedical Engineering, RuCCS; Ph.D., Columbia*
 Alan Prince, *Linguistics, RuCCS; Ph.D., Massachusetts Institute of Technology*
 Zenon Pylyshyn, *Psychology, RuCCS; Ph.D., Saskatchewan*
 Manish Singh, *Psychology, RuCCS; Ph.D., California (Irvine)*
 Stephen Stich, *Philosophy, RuCCS; Ph.D., Princeton*
 Matthew Stone, *Computer Science, RuCCS; Ph.D., Pennsylvania*
 Karin Stromswold, *Psychology, RuCCS; Ph.D., Massachusetts Institute of Technology; M.D., Harvard Medical School*
 Bruce Tesar, *Linguistics, RuCCS; Ph.D., Colorado*

Additional Faculty:

For a list of additional faculty associated with the program, contact the program director or consult the cognitive science web pages.

Cognitive science is an interdisciplinary area of scholarship concerned with understanding the nature and development of such intelligent capacities as perception, language, reasoning, planning, problem solving, and related skills, whether these capacities are instantiated in biological or artificial systems. The goal of the cognitive science minor is to provide a structured way for undergraduates to study and carry out research in cognitive science with guidance from faculty members affiliated with the program in cognitive science. Any undergraduate may pursue a minor in cognitive science, regardless of his or her major. The interdisciplinary cognitive science minor is likely to be of particular interest to undergraduates majoring in fields that are directly related to cognitive science (e.g., computer science, linguistics, philosophy, psychology, anthropology, biological sciences, mathematics, statistics, biomathematics, communication, and engineering). For additional information about the cognitive science minor, call the Rutgers Center for Cognitive Science (RuCCS) at 732/445-0635; send email to undergrad@ruccs.rutgers.edu, or consult the cognitive science undergraduate web pages at <http://ruccs.rutgers.edu/academicgrad.html>.

Minor Program

The interdisciplinary minor in cognitive science consists of a minimum of 18 credits, distributed as follows:

1. 01:185:201 Cognitive Science: A Multidisciplinary Introduction (3)
2. A minimum of 3 credits in formal / analytic methods used in cognitive science. The following courses fulfill the formal / analytic requirement:
 - 01:198:111 Introduction to Computer Science (4)
 - 01:198:112 Data Structures (4)
 - 01:198:113 Introduction to Software Methodology (4)
 - 01:198:205 Introduction to Discrete Structures I (4)
 - 01:198:206 Introduction to Discrete Structures II (4)
 - 01:615:305 Syntax (3)
 - 01:615:315 Phonology (3)
 - 01:615:325 Semantics (3)
 - 01:615:411 Morphology (3)
 - 01:640:300 Introduction to Mathematical Reasoning (3)
 - 01:640:338 Discrete and Probabilistic Models in Biology (3)
 - 01:640:355 Game Theory (3)
 - 01:640:361 Set Theory (3)
 - 01:640:428 Graph Theory (3)
 - 01:640:454 Combinatorics (3)
 - 01:640:461 Mathematical Logic (3)
 - 01:640:477 Mathematical Theory of Probability (3)
 - 01:640:478 Probability II (3)
 - 01:640:481 Mathematical Theory of Statistics (3)
 - 01:730:201 Introduction to Logic (3)

- 01:730:315 Applied Symbolic Logic (3)
 - 01:730:407 Intermediate Logic I (3)
 - 01:730:408 Intermediate Logic II (3)
 - 01:830:302 Sensation and Perception Laboratory (1)
 - 01:830:304 Memory Laboratory (1)
 - 01:830:306 Cognition Laboratory (1)
 - 01:830:352 Psychology of Language Laboratory (1)
 - 01:830:472 Cognition and Computation (3)
 - 01:830:473 Cognition and Computation Laboratory (1)
 - 01:960:379 Basic Probability and Statistics (3)
 - 01:960:381 Theory of Probability (3)
 - 01:960:382 Theory of Statistics (3)
3. A minimum of an additional 12 elective courses. Any of the computer science, linguistics, mathematics, philosophy, psychology, and statistics courses listed as approved formal / analytic courses may be counted as elective courses. The following additional courses fulfill the elective requirement:
 - 01:119:195 Brain, Mind, and Behavior (3)
 - 01:146:245 Fundamentals of Neurobiology (3)
 - 01:146:384 Behavioral and Neural Genetics (3)
 - 01:146:445 Advanced Neurobiology I (3)
 - 01:146:447 Advanced Neurobiology II (3)
 - 01:185:411 Advanced Topics in Cognitive Science I (3)
 - 01:185:412 Advanced Topics in Cognitive Science II (3)
 - 01:185:495 Research in Cognitive Science I (3)
 - 01:185:496 Research in Cognitive Science II (3)
 - 01:198:314 Principles of Programming Languages (4)
 - 01:198:344 Design and Analysis of Computer Algorithms (4)
 - 01:198:415 Compilers (4)
 - 01:198:424 Modeling and Simulation of Continuous Systems (4)
 - 01:198:428 Introduction to Computer Graphics (4)
 - 01:198:440 Introduction to Artificial Intelligence (4)
 - 01:198:452 Formal Languages and Automata (3)
 - 01:615:201 Introduction to Linguistic Theory (3)
 - 01:615:330 Historical Linguistics (3)
 - 01:615:340 Romance Linguistics (3)
 - 01:615:350 Language and Context (3)
 - 01:615:360 Theories of Language (3)
 - 01:615:421 Language Typology (3)
 - 01:615:431 Investigations into an Unfamiliar Language (3)
 - 01:615:441 Linguistics and Cognitive Science (3)
 - 01:730:210 Philosophy of Language (3)
 - 01:730:328 Philosophy of Psychology (3)
 - 01:730:329 Minds, Machines, and Persons (3)
 - 01:730:360 Philosophical Aspects of Cognitive Science (3)
 - 01:730:418 Philosophy of Mind (3)
 - 01:730:420 Philosophy of Language (3)
 - 01:730:422 Philosophy of Logic (3)
 - 01:730:424 The Logic of Decision (3)
 - 01:730:428 Topics in the Philosophy of Psychology (3)
 - 01:830:201 Principles of Cognitive Science (3)
 - 01:830:301 Sensation and Perception (3)
 - 01:830:303 Memory (3)
 - 01:830:305 Cognition (3)
 - 01:830:307 Perception in Cognitive Science (3)
 - 01:830:311 Conditioning and Learning (3)
 - 01:830:313 Physiological Psychology (3)
 - 01:830:351 Psychology of Language I (3)
 - 01:830:353 Language Acquisition (3)

- 01:830:361 Developmental Psychobiology (3)
- 01:830:363 Behavioral Pharmacology (3)
- 01:830:401 Advanced Topics in Human Cognition (3)
- 01:830:412 Neuropsychopharmacology (3)
- 01:830:480 Topics in Visual Perception (3)
- 14:125:405 Introduction to Neural Processes
Bio / Artificial (3)
- 14:125:410 Sensory Processes, Mechanisms, and
Computer Models (3)

Additional Requirements for the Minor

1. Grades of C or better must be earned in all courses counted toward the minor.
2. No more than 4 credits at the 100 level may be counted toward the minor.
3. At least half of the credits used toward the minor must be at the 300 level or above.
4. No more than half of the credits used toward the minor may be taken from any one department.
5. The same course cannot be used to fulfill both the formal/analytic and elective requirements.
6. Courses taken within a student's major field of study cannot be used to fulfill the elective requirement unless special permission is granted by the undergraduate program director in cognitive science.

Students who wish to declare a minor in cognitive science should do so either at the same time or after they have declared a major field of study. Either before or immediately after declaring the cognitive science minor, students must take Cognitive Science 201 (01:185:201) and a formal/analytic methods course. Students should be aware that many of the courses listed have prerequisites and not all of the courses are offered each term. Contact the departments that offer courses to learn about prerequisites and course schedules. The cognitive science program faculty, under the direction of the undergraduate program director, advises students about selection of courses, mentors, and research/independent study projects. Students may petition the undergraduate program director to have alternate courses count as formal/analytic or elective courses.

Courses

01:185:201. COGNITIVE SCIENCE: A MULTIDISCIPLINARY INTRODUCTION (3)

Pre- or corequisite: A course in computer science, linguistics, philosophy, or psychology; or permission of instructor.

Introduction to computational, linguistic, philosophical, and psychological approaches taken within cognitive science, through a survey of topics such as reasoning, language, and vision.

01:185:411. ADVANCED TOPICS IN COGNITIVE SCIENCE I (3)

Seminar on computational, linguistic, philosophical, and psychological approaches taken within cognitive sciences through a survey of topics such as reasoning, language, vision, and cognitive development.

01:185:412. ADVANCED TOPICS IN COGNITIVE SCIENCE II (3)

Seminar on computational, linguistic, philosophical, and psychological approaches taken within cognitive sciences through a survey of topics such as reasoning, language, vision, and cognitive development.

01:185:495. RESEARCH IN COGNITIVE SCIENCE I (3)

Pre- or corequisites: 01:185:201, an approved formal/analytic course, and permission of instructor and undergraduate program director. Open only to juniors and seniors.

Supervised research/independent study. May include library or laboratory research. Written agreement with supervisor and final written report required.

01:185:496. RESEARCH IN COGNITIVE SCIENCE II (3)

Pre- or corequisites: 01:185:201 and 495, an approved formal/analytic course, and permission of instructor and undergraduate program director. Open only to juniors and seniors.

Supervised research/independent study. May include library or laboratory research. Written agreement with supervisor and final written report required.

COMMUNICATION

(See the School of Communication,
Information and Library Studies section)

COMMUNITY DEVELOPMENT

(See the Edward J. Bloustein School
of Planning and Public Policy)

COMPARATIVE LITERATURE 195

Program in Comparative Literature, Faculty of Arts
and Sciences

Web Site: <http://complit.rutgers.edu>

Undergraduate Director: Richard Serrano

Professors:

Stephen Eric Bronner, B.A., CUNY (City College); M.A., Ph.D.,
California (Berkeley)
Drucilla Cornell, B.A., Antioch; J.D., UCLA Law School
Marianne DeKoven, B.A., Radcliffe College; M.A., Ph.D., Stanford
Elin Diamond, B.A., Brandeis; M.A., Ph.D., California (Davis)
M. Josephine Diamond, B.A., Leeds (England); M.A., Ph.D., Cornell
Uri Eisenzweig, B.A., Tel Aviv; M.A., Doctorate, Paris
Jerry A. Flieger, B.A., Wisconsin; M.A., Ph.D., California (Berkeley)
William Galperin, A.B., Chicago; A.M., Ph.D., Brown
Myra Jehlen, B.A., CUNY (City College); Ph.D., California (Berkeley)
Michael McKeon, B.A., Chicago; M.A., Ph.D., Columbia
Alicia Ostriker, B.A., Brandeis; M.A., Ph.D., Wisconsin
Louis A. Sass, B.A., Harvard; M.A., Ph.D., California (Berkeley)
Mary Speer, B.A., Duke; M.A., Ph.D., Princeton
Ching-I Tu, B.A., National Taiwan; Ph.D., Washington
Janet A. Walker, B.A., Wisconsin; M.A., Ph.D., Harvard
Steven F. Walker, B.A., Wisconsin; M.A., Ph.D., Harvard
Ban Wang, M.A., Beijing Foreign Studies; Ph.D., California (Los Angeles)
Alan Williams, B.A., M.A., Washington; Ph.D., SUNY (Buffalo)
Yael Zerubavel, B.A., Hebrew (Jerusalem); M.A., Ph.D., Pennsylvania

Associate Professors:

Abena P.A. Busia, B.A., M.A., St. Anne's College (Oxford); Ph.D.,
St. Anthony's College (Oxford)
Ed Cohen, A.B., Georgetown; Ph.D., Stanford
Harriet Davidson, B.A., Texas (Austin); M.A., Ph.D., Vanderbilt
William C. Donahue, M.A., Middlebury; Ph.D., Harvard
Sandy Flitterman-Lewis, B.A., M.A., Ph.D., California (Berkeley)
Mary Gossy, B.A., Bryn Mawr College; M.A., Ph.D., Harvard
Jorge Marcone, B.A., Pontificia Universidad Católica del Perú; M.A., Ph.D., Texas
Gerald Pirog, B.A., Rutgers; M.Phil., Ph.D., Yale
Paul Schalow, B.A., Hampshire College; M.A., Ph.D., Harvard
Louisa Schein, B.A., Brown; M.A., Ph.D., California (Berkeley)
Richard Serrano, B.A., Stanford; M.A., Ph.D., California (Berkeley)
Ben Sifuentes-Jáuregui, B.A., M.Phil., Ph.D., Yale
James B. Swenson, Jr., B.A., Brown; M.A., Ph.D., Yale

COMPARATIVE LITERATURE

Assistant Professors:

César A. Braga-Pinto, B.A., *Universidade de São Paulo*; M.A., *San Francisco State*; Ph.D., *California (Berkeley)*

Yolanda Martínez-San Miguel, B.A., *Puerto Rico*; Ph.D., *California (Berkeley)*

Nicholas Rennie, B.A., *Princeton*; Ph.D., *Yale*

Alessandro Vettori, *Dottore in Lettere, Firenze*; Ph.D., *Yale*

Comparative literature is an exciting, interdisciplinary program that allows you to study literature as it shapes and is shaped by the world of science, economics, politics, sexuality, and other cultural and historical forces. It is a major that should be attractive to students with a wide ranging interest in literature, theory, and cultural studies, and who also wish to read literature in the original language as well as in translation.

The program draws upon faculty from a wide range of disciplines and offers a great deal of personal, individualized guidance in the construction of your major. There is also a strong group of graduate students with diverse interests and language abilities who guide undergraduates through the mentorship program.

Students who graduate with a major in comparative literature may go on to study literature in graduate school, or, because of their training in research, critical thinking, and writing, are also prepared for law school and other professional schools.

Major Requirements

The major in comparative literature requires 33 credits:

Core Courses

Two courses constitute the foundation of the major in which students learn the fundamentals of comparative methodologies and engage in sophisticated analyses of literary production in multiple cultures.

01:195:201 Literature across Borders (3)

01:195:301 Introduction to Literary Theory (3)

Foreign Literature

Prospective majors are strongly advised to begin the advanced study of a foreign language as early as possible in their academic careers, as all majors are required to demonstrate a sufficient level of proficiency in a language other than English, and are strongly urged to continue the study of at least one foreign language throughout their four years of work. Majors are required to choose two courses (6 credits) in literature (broadly defined) at the 200 level or above in a department other than English, in consultation with the undergraduate director. Since course offerings in foreign languages and literature vary widely from department to department, students should refer to the comparative literature web site for model course sequences that fulfill the foreign literature requirement. Majors must also take one additional course (3 credits) with a significant non-Western component.

Major Focus

Students are required to select an area of concentration and, in consultation with the undergraduate director, a group of at least six term courses (18 credits), including two additional comparative literature courses at the 300 level or above, in this area.

Grades of C or better must be earned in all courses used to fulfill the requirements of the major.

Minor Requirements

The minor consists of 18 credits of course work in comparative literature, including:

01:195:201 Literature across Borders (3)

01:195:301 Introduction to Literary Theory (3)

In addition, three other courses in comparative literature, two of which must be at the 300 level or above, and an additional course at the 300 level chosen in consultation with the undergraduate director.

Grades of C or better must be earned in all courses used to fulfill the requirements of the minor.

Departmental Honors Program

To graduate with honors in comparative literature, students must complete a thesis, which will be evaluated by a director and a second reader. Students will receive 3 credits each term for independent work on the thesis. A grade of B+ or better is required.

To qualify, majors must have a cumulative grade-point average of 3.0 or better, and a grade-point average of 3.5 or better in the major at the end of the junior year. They must have their topic approved as adequate for an honors thesis by their chosen thesis director and the undergraduate director. Such approval is usually required by the end of the spring term of the junior year and in no case later than the end of the *Add/Drop* period of the first term of the senior year.

Courses

01:195:101. INTRODUCTION TO WORLD LITERATURE (3)

Classics of Western and Eastern literature. Readings may include the *Odyssey*, the *Tao Te Ching*, Roman poetry, *Beowulf*, *Shakuntala*, *The Tale of Genji*, troubadour poetry, and Dante's *Inferno*.

01:195:102. INTRODUCTION TO WORLD LITERATURE: COLLOQUIUM (1)

Corequisite: 01:195:101.

Readings and in-depth discussion and analysis of literary texts as well as works in theory.

01:195:135. INTRODUCTION TO SHORT FICTION (3)

The novella, short story, and short novel in Western and non-Western literary traditions. Authors: Boccaccio, Kleist, Hoffmann, Gogol, Dostoevsky, Mann, Kafka, Gide, and Akutagawa.

01:195:136. INTRODUCTION TO SHORT FICTION: COLLOQUIUM (1)

Corequisite: 01:195:135.

Readings and in-depth discussion and analysis of short fiction as well as works in theory.

01:195:150. WORLD MYTHOLOGY (3)

Story, structure, and meaning in myths of many cultures. Myth as a primary literary phenomenon, with some attention to anthropological and psychological perspectives.

01:195:151. WORLD MYTHOLOGY: COLLOQUIUM (1)

Corequisite: 01:195:150.

Readings and in-depth discussion and analysis of mythological and folkloric texts as well as works in theory.

01:195:160. TOPICS IN COMPARATIVE STUDY (2)

Designed to introduce students to the discipline of comparative literature by exposing them to six major literary texts within the context of critical and theoretical texts both of the period in which they originated and of later periods.

01:195:201. LITERATURE ACROSS BORDERS (3)

The concept and practice of comparative literature across historical periods, cultures, and genres. Team-taught by the core faculty, and each year considers a different theme or critical problem.

01:195:203,204. MASTERWORKS OF WESTERN LITERATURE (3,3)

Comparative study of selected classical texts from the Western literary tradition. *First term:* Antiquity and Middle Ages. *Second term:* Renaissance to the present.

01:195:216. INTRODUCTION TO WORLD LITERATURES IN ENGLISH (3)

Credit not given for both this course and 01:351:216.

Survey of English language literatures, including Asian, African, and Caribbean, in a global context.

01:195:237. INTRODUCTION TO CLASSICAL ARABIC LITERATURE (3)

Survey of a wide selection of Arabic literary texts in translation, dating from the 6th to the 12th centuries, including poetry and prose in both classical and colloquial Arabic.

01:195:241. MASTERPIECES OF MODERN GREEK LITERATURE IN TRANSLATION (3)

Credit not given for both this course and 01:489:241.

Readings and discussions of representative works from the *Erotokritos* of Vitzentos Kornaros to the contemporary works of Giannis Ritsos.

01:195:243. INTRODUCTION TO THE LITERATURES OF INDIA (3)

Indian literatures from Vedic times to the present. Emphasis on the Golden Age of Sanskrit literature and on the modern Indian novel and short story.

01:195:244. INTRODUCTION TO MYTH (3)

Credit not given for both this course and 01:351:244.

Myths of various cultures; their structures and functions in social and especially literary contexts.

01:195:245. INTRODUCTION TO FOLKLORE (3)

Credit not given for both this course and 01:351:245.

Major genres of folklore, including folktale, folk song, and legend, with attention to the methods of collecting and analyzing these materials.

01:195:249. MODERN LITERATURES OF INDIA (3)

Short stories, novels, autobiographies, plays, poems, television dramas, and films that articulate identities on the Indian subcontinent during important periods of social change from 1400 to present. Topics include nationalism, gender relations, the language questions, communalism, the independence movement, and marginalized groups. All works read and viewed in translation.

01:195:301. INTRODUCTION TO LITERARY THEORY (3)

Credit not given for both this course and either 01:353:301 or 302. 01:353:301 or 302 may be counted for major core or minor core requirement with permission of undergraduate director.

An examination of theoretical concepts and contexts that constitute and frame contemporary views of literature. Critical analysis of formalist, psychoanalytic, structuralist, post-structuralist, Marxist, and feminist approaches to theory and literature. Structured to familiarize students with recent debates in critical and cultural theory.

01:195:303. GENRE IN CULTURAL CONTEXT (3)

Credit not given for both this course and 01:351:385. 01:353:385 may be counted for major core or minor core requirement with permission of undergraduate director.

Analysis of exemplary generic formations in their cultural contexts; genres considered cross-culturally.

01:195:304. FICTION AND IDEOLOGY (3)

Fictional narratives as statements about the social order. Texts by major thinkers such as Marx, Lukács, Goldmann, Benjamin, and Williams.

01:195:306. LITERATURE AND CULTURAL CONQUEST (3)

Credit not given for both this course and 01:353:326. 01:353:326 may be counted for major core requirement with permission of undergraduate director.

Dissemination and reception of hegemonic literatures: the function of travel literature; the transformation and appropriation of popular cultures.

01:195:307. INTRODUCTION TO POSTCOLONIAL LITERATURES AND THEORIES (3)

Study of novels, poetry, essays, and films from regions of the world deemed postcolonial, which may include Africa, Latin America, South and Southeast Asia, and the Caribbean. Discussion of major issues in postcolonial theory and criticism.

01:195:308. GENDER, RACE, AND TEXTUAL IMAGINATION (3)

Literature as the privileged representation of the other. The connection between the form(s) of creative writing and the evolution of the very notion of sexual, and/or racial, differences. Theoretical readings: Irigaray, Kristeva, Johnson, Gates.

01:195:309. MAJOR LITERARY TRENDS (3)

Survey of the major literary periods or movements such as classical, medieval, Renaissance, romanticism, realism, and naturalism.

01:195:310. LITERARY INSTITUTIONS (3)

Literature as a socially determined phenomenon. The historical evolution of the status of the writer, of the work, of the critic, as well as of the means of, and the obstacles to, the dissemination of literary writing in various societies.

01:195:312. LITERATURE AND THE PSYCHE (3)

Texts by Freud, Lacan, and Jung. Introduction to the various literary questions raised by modern theories in psychology, particularly psychoanalysis.

01:195:314. LITERATURE AS A KIND OF LANGUAGE (3)

Introduction to criticism influenced by modern philosophies of language. Emphasis on formalism, structuralism, semiotics, and deconstruction. Readings: Saussure, Jakobson, Levi Strauss, Barthes, Derrida, de Man.

01:195:315. DANTE AND MEDIEVAL CULTURE (3)

Credit not given for both this course and 01:560:315.

Dante's work in historical perspective: the theological antecedents, memory of the classical writers, and new profane literary experience.

01:195:316. POLITICS, LITERATURE, AND THE ARTS (3)

Credit not given for both this course and 01:790:316.

Discussion and analysis of political elements in selected aesthetic works that vary with the instructor.

01:195:318. LITERARY APPROACHES TO SACRED TEXTS (3)

Credit not given for both this course and 01:351:322.

Literary analysis of the formation and structure of the major texts of several world religions. Attention to style, genre, and cross-cultural interpretation.

01:195:320. WORLD CINEMA I (3)

Credit not given for both this course and 01:354:320.

Developments in French, Italian, British, Russian, and other national cinemas from 1896 to World War II; also examines cross-influences between foreign and American cinema.

01:195:321. WORLD CINEMA II (3)

Credit not given for both this course and 01:354:321.

Developments in French, Italian, British, Russian, Japanese, and other national cinemas after World War II; also examines cross-influences between foreign and American cinema.

01:195:324. TWENTIETH-CENTURY LITERATURE IN A GLOBAL CONTEXT (3)

Credit not given for both this course and 01:350:378.

Twentieth-century writing in English other than British and American.

01:195:326. BACKGROUNDS OF HOMOEROTIC LITERATURE (3)

Credit not given for both this course and 01:351:315.

Survey of gay and lesbian literature from the Greeks to the 1920s, stressing formal and generic analysis between cultures.

01:195:327. WOMEN'S TRADITIONS IN LITERATURE (3)

Prerequisite: One course in women writers or permission of instructor.

Fiction and poetry by women in three periods: Heian Japan (800–1200), the continental European Renaissance, and 19th-century England. Focus on the social context of a feminine literary tradition and the relationship between gender and genre.

01:195:329. MODERN JAPANESE NOVEL AND THE WEST (3)

Introduction to Japanese literature in translation from 1885 to the present, focusing on the influence of Western cultural ideals and literary forms. Special emphasis on the development of the novel form. Authors: Sōseki, Tōson, Akutagawa, Tanizaki, Kawabata, and Mishima.

01:195:331. THE NOVEL, EAST AND WEST (3)

The novel of the last one hundred years as a cross-cultural form. Comparison of novels from America, Europe, Asia, India, and Africa.

01:195:332. LOVE, HONOR, AND SUICIDE IN JAPANESE LITERATURE (3)

Credit not given for both this course and 01:565:317.

Suicide as a theme in Japanese literature from the eighth century to the present, with comparisons to the theme of suicide in Western literature. Selected texts from Western literature read to gain a comparative perspective. Films shown as well.

01:195:333. MODERN WRITERS AND EAST ASIA (3)

Influence of Asian literature and philosophy on the development of Western poetry, drama, and fiction of the 20th century. Works include poems of Pound, Brecht, and Gary Snyder; plays of Yeats and Brecht; novels of Forster, Conrad, and Hesse.

01:195:335. MINORITY LITERATURES (3)

Credit not given for both this course and 01:351:369.

Cross-national and comparative studies of literature of one or more ethnic, racial, or cultural groups. Topics vary; consult department announcement.

01:195:336. LITERATURES OF MIGRATION, IMMIGRATION, AND DIASPORA (3)

Credit not given for both this course and 01:351:366.

Writings, mainly in English, that foreground representations of place, community, and identity in relation to national and international movement and displacement.

01:195:340. RENAISSANCE AND BAROQUE (3)

Intellectual currents and representative works, including epic, lyric, prose fiction, and drama of the European Renaissance. Readings from Marlowe, Rabelais, Montaigne, Erasmus, More, and others.

01:195:341. EUROPEAN NEOCLASSICISM (3)

European literature in the 17th and early 18th centuries and its connections with political, philosophical, and scientific thought of the time. Authors: Galileo, Descartes, Corneille, Molière, Milton, Dryden, Pope, and Grimmshausen.

01:195:342. THE ROMANTIC MOVEMENT (3)

Intellectual currents and representative works, including lyric, prose fiction, and drama of the European romantic movement. Major romantic texts of France, Germany, and Russia.

01:195:344. MYTH AND MODERN GREECE (3)

Credit not given for both this course and 01:489:344.

Various expressions of myth in modern Greece and their relation to the country's contemporary history. Ancient myth and its re-adaptation in modern context.

01:195:345. LITERARY MODERNISM (3)

Exploration of the concept of "modernism" through major literary works written in English and other languages.

01:195:346. CLASSICAL BACKGROUNDS OF LITERATURE (3)

Credit not given for both this course and 01:351:317.

Influence on literature of classical Greek and Roman epic, tragedy, comedy, and other literary forms.

01:195:347. THE LIFE AND WORKS OF ODYSSEUS ELYTIS (3)

Credit not given for both this course and 01:489:347.

Examination of the works of Odysseus Elytis; the writers and artists who influenced his work.

01:195:348. BYZANTINE LITERATURE (3)

Credit not given for this course and 01:190:316 or 01:489:316.

Key genres and works of Byzantine literature, late 6th through 15th century. Readings drawn from history, hagiography, poetry, theology, orations, romance, satire, and laments.

01:195:349. THE BIBLE AND WESTERN LITERATURE (3)

Credit not given for both this course and 01:351:319.

Influence of the King James and other versions of the Bible on literature in English.

01:195:350. THEORY OF NARRATIVE (3)

Prerequisite: One course in literature or permission of instructor.

Logic of narrative and its implications in modern culture. Theoretical texts by Jakobson, Foucault, Genette, and Propp. Modern fiction (Poe, Borges, Robbe-Grillet), newspaper articles, and advertisements.

01:195:352. THE EUROPEAN NOVEL (3)

Comparative study of the emergence of forms, themes, and techniques of the novel from the Renaissance to the 20th century.

01:195:354. THE 19TH-CENTURY NOVEL (3)

Major works of fiction in their historical and social context. Authors include Balzac, Stendhal, Dickens, Turgenev, Dostoevsky, Eliot, and Mann.

01:195:356. MODERN FICTION (3)

Major works of fiction from 1900 to 1945 in their historical and political context. Works by such authors as Lawrence, Gide, Woolf, Mann, Malraux, Kafka, Proust, Sōseki, and Lu Xun.

01:195:357. CONTEMPORARY NOVEL (3)

Major novels written since 1945. Authors include Camus, Solzhenitsyn, Kundera, Böll, Tanizaki, Kawabata, Lessing, and Pavese.

01:195:358. ODYSSEUS: FROM HOMER TO KAZANTZAKIS (3)

Credit not given for both this course and 01:489:358. Taught in English.

Examination of the Homeric figure of Odysseus; his reincarnation and transformation in modern Greek.

01:195:359. LITERATURE OF THE FANTASTIC (3)

Short stories of the 19th and 20th centuries, with some consideration of longer forms and parallel literary developments in ancient and Eastern cultures. Structuralist and psychological approaches to genre.

01:195:360. AUTOBIOGRAPHY (3)

Credit not given for both this course and 01:351:341.

Major works with special focus on theory and poetics.

01:195:370. GERMANY CONFRONTS THE HOLOCAUST (3)

Credit not given for this course and 01:470:370 or 01:563:370.

Analysis of the shifting role of the Holocaust in postwar German public life—in art, literature, museums and other memorials, film, television, and political discourse. Some attention will also be given to Austria and Switzerland; contrasts will be drawn to the place of the Holocaust in postwar and contemporary America.

01:195:375. THE DEVIL IN THE TEXT (3)

An investigation of the devil's image in literature across cultures and centuries. Departing from the biblical text, a study of the personalization of evil as reproduced in literary works.

01:195:380. GERMAN-JEWISH LITERATURE AND CULTURE FROM THE ENLIGHTENMENT TO THE PRESENT (3)

Credit not given for both this course and 01:470:380.

Survey of German-Jewish culture, 18th century to the present. Literature in political-historical context, with some attention to music, philosophy, and film.

01:195:383. THE LIFE AND WORKS OF NIKOS KAZANTZAKIS (1885–1957) (3)

Pre- or corequisite: 01:489:241 or permission of instructor. Credit not given for both this course and 01:489:383.

Works of Nikos Kazantzakis (1885–1957) and the Eastern and Western ideas that influenced him—Homer, Henri Bergson, Nietzsche, Freud, and Buddhist philosophy.

01:195:384. POETRY (3)

Poetry from the ancient Greeks to the 20th century, including Western and Asian poetry.

01:195:385. MODERN POETRY (3)

Comparative survey of poetry in languages other than English from 1850 to the present. Poets include Baudelaire, Mallarmé, Rimbaud, Rilke, Brecht, Neruda, Vallejo, Mandelstam, Akhmatova, Pessoa, Apollinaire, and Artaud.

01:195:387. HYBRID WESTERN MODERNITY IN LITERATURE AND THE ARTS (3)

The formation of European modernity in literature and the arts from the 1880s–1930 under the impact of Japanese and other non-Western aesthetics.

01:195:388. THE CULTURES OF THE MIDDLE AGES (3)

Credit not given for both this course and 01:350:388 or 01:667:388.

Detailed introduction to a particular aspect of the rich cultural diversity of the European Middle Ages. Topics vary.

01:195:390. COMEDY (3)

Study of the major comic traditions, especially the Menandrian (Menander, Plautus, Terence, Molière) and its modern descendant, the comedy of social criticism (Beaumarchais, Gogol, Chekhov, Shaw).

01:195:391. TRAGEDY (3)

Credit not given for both this course and 01:351:326.

Study of the literature and theory of tragedy from the Greeks to the 20th century.

01:195:392. THE REALISTIC THEATER (3)

History of the realistic presentation of theatrical spectacles in Europe from the 18th to the 20th century. Equal emphasis on staging and playwriting. Includes Ibsen, Chekhov, Shaw, and Becque.

01:195:393. ISRAELI THEATER AND FILM (3)

Credit not given for both this course and 01:563:393.

Comparative and interdisciplinary approaches to Israeli theater and film as a crossroads between East and West.

01:195:395. ISSUES IN COMPARATIVE LITERATURE (3)

Prerequisite: Permission of instructor. May be taken more than once. Content will differ each term.

Separate sections focusing on comparative, interdisciplinary topics. Specific titles announced at the time of registration.

01:195:399. SERVICE LEARNING INTERNSHIP (1)

Must be taken in conjunction with a designated CASE (Citizenship and Service Education) course offered in comparative literature.

One credit community service placement in comparative literature.

01:195:407. HOMER AND JOYCE (3)

Comparison of the *Odyssey* and *Ulysses* to show how a modern author employs the past in an attempt to construct a world epic. Homer read in translation.

01:195:419. HISTORY OF CRITICISM (3)

History of criticism from Plato and Aristotle to the 20th century.

01:195:420. HISTORY OF CRITICISM (3)

Major criticism of the 20th century.

01:195:437,438. TWENTIETH-CENTURY ARABIC LITERATURE (3,3)

Prerequisite: At least one prior course in literature (English or world) or one course in Middle Eastern studies. Credit not given for both these courses and 01:013:437,438 or 01:685:437,438.

Survey of representative works of Arabic literature in translation, including poetry, the novel, the short story, and plays. Emphasis on how new literary trends reflect sociocultural change in the Arab world, including debates over tradition, gender relations, and cultural pluralism.

01:195:440. SEMINAR: TOPICS IN GENRE (3)

Credit not given for both this course and 01:351:440.

Intensive study, in a discussion-oriented format, of a particular genre (e.g., pastoral, epic, comedy, lyric) or relationship among genres. Topics vary; consult department.

01:195:480. SPECIAL TOPICS IN COMPARATIVE LITERATURE (3)

Prerequisite: Permission of instructor.

Variable content. Special studies in particular ideas, themes, forms, and historic units in literature. Designed by individual instructor.

01:195:490. MODERN MIDDLE EASTERN LITERATURE IN TRANSLATION (3)

Credit not given for both this course and 01:563:480 or 01:685:490.

Modern literature in Arabic, Hebrew, Persian, and Turkish traditions, with focus on poetry, the short story, and the novel.

01:195:493,494. INDEPENDENT STUDY (BA,BA)

Prerequisites: Permission of instructor and department.

Independent reading under supervision of a member of the department.

01:195:495,496. HONORS IN COMPARATIVE LITERATURE (3,3)

Prerequisite: Permission of the department.

Independent research on the honors thesis.

COMPUTER SCIENCE 198

Department of Computer Science, Faculty of Arts and Sciences

Web Site: <http://www.cs.rutgers.edu>

Chairperson: Haym Hirsh

Professors:

Eric Allender, B.A., Iowa; Ph.D., Georgia Tech
Alexander T. Borgida, B.S., M.S., Ph.D., Toronto
Vasek Chvatal, M.S., Charles (Czech Republic); Ph.D., Waterloo
Michael Fredman, B.S., California Institute of Technology; Ph.D., Stanford
Apostolos Gerasoulis, B.S., Ioannina (Greece); M.S., Ph.D., SUNY (Stony Brook)

COMPUTER SCIENCE

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Haym Hirsh, B.S., California (Los Angeles); Ph.D., Stanford
Tomasz Imielinski, M.S., Gdansk Politechnica (Poland); Ph.D., Polish Academy of Sciences
Leonid Khachiyan, M.Sc., Moscow Institute of Physics and Technology; Ph.D., Computing Center of the USSR Academy of Sciences (Moscow)
Casimir A. Kulikowski, Board of Governors Professor of Computer Science; B.S., M.S., Yale; Ph.D., Hawaii
L. Thorne McCarty, Professor of Law and Computer Science; B.A., Yale; J.D., Harvard Law School
Dimitris N. Metaxas, M.Sc., Maryland; Ph.D., Toronto
Naftaly Minsky, M.S., Ph.D., Hebrew (Jerusalem)
Badri Nath, Ph.D., Massachusetts
Marvin C. Paull, B.S., Clarkson College of Technology
Gerard Richter, B.S., Pennsylvania State; M.S., Northwestern; Ph.D., Harvard
Barbara Ryder, B.A., Brown; M.S., Stanford; Ph.D., Rutgers
William L. Steiger, B.S., M.S., Massachusetts Institute of Technology; Ph.D., Australian National
Mario Szegedy, M.S., Eötvös Lóránd; Ph.D., Chicago
Endre Szemerédi, State of New Jersey Professor of Computer Science; D.Sc., Moscow

Associate Professors:

Ricardo Bianchini, B.Sc., Federal University of Rio de Janeiro; M.Sc., Ph.D., Rochester
Martin Farach-Colton, B.S., South Carolina; M.D., Johns Hopkins; Ph.D., Maryland
Liviu Iftode, Dipl.Eng., Polytechnic Institute of Bucharest; M.A., Ph.D., Princeton
Bahman Kalantari, B.S., Wisconsin; M.S., Ph.D., Minnesota
Ulrich Kremer, M.S., Ph.D., Rice
Saul Y. Levy, B.S.E.E., RPI; M.S., New York; Ph.D., Yeshiva
Michael Littman, B.S., M.S., Yale; Ph.D., Brown
S. Muthukrishnan, M.S., Ph.D., New York
Louis Steinberg, B.S., Illinois; Ph.D., Stanford

Assistant Professors:

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Ahmed Elgammal, M.Sc., Ph.D., Maryland
Daniel A. Jimenez, M.S., Texas (San Antonio); Ph.D., Texas (Austin)
Richard P. Martin, B.A., Rutgers; M.S., Ph.D., California (Berkeley)
Thu Duc Nguyen, B.S., California (Berkeley); M.S., Massachusetts Institute of Technology; Ph.D., Washington (Seattle)
Vladimir Pavlovic, M.S., Illinois (Chicago); Ph.D., Illinois (Urbana-Champaign)
Matthew Stone, Sc.B., Brown; Ph.D., Pennsylvania

LCSR Computing Facility:

Don Smith, Director; B.S., M.S., Brown; Ph.D., Rutgers

Instructional Staff:

Kate Goelz, B.S., Temple; M.A., Arcadia; M.Ed., West Chester; Ed.D., Temple
Pradip Hari, B.S., Carnegie Mellon; M.S., Rutgers
Sesh Venugopal, M.S., Ph.D., Rutgers

The Department of Computer Science web site is <http://www.dcis.rutgers.edu/cs/academics>. Students should check the web site regularly, especially before selecting each term's courses. Announcements of particular importance are highlighted on the first web page. *Please note that courses for which a student has received a grade of D cannot be used to satisfy prerequisite requirements.*

Entry Requirements for the Major

Students wishing to declare a major in computer science must achieve a grade of C or better in 01:198:111, 112, 205, and 01:640:151-152. For purposes of declaring a major, these courses may be repeated to replace D/F grades, subject to the condition that all such D/F grades are earned in a single term. Transfer students are required to take at least three courses in the New Brunswick Division of Computer and Information Sciences before being accepted to the major.

Major Requirements

The basic major, leading to a bachelor of arts degree, consists of (1) seven required courses on computer science, 01:198:111, 112, 113, 205, 206, 211, and 344; and (2) two courses in mathematics, 01:640:151-152 and a third 3- or 4-credit mathematics course at the 200 or above level (this course must be prerequisite to a CS (198:XXX) course that the student takes); (3) four electives from a designated list of courses in computer science and related disciplines (e.g., electrical engineering, mathematics). *For details, see a computer science adviser or the departmental web site. At least two of the four electives must be taken in the Department of Computer Science.*

To receive a bachelor of science degree, students must satisfy requirements (1) and (2) for the bachelor of arts degree, and, in addition, complete computer science courses 01:198:314, 416, and four other courses from category (3), plus physics courses 01:750:203-204 and 205-206 (or 01:750:123-124 and 227-229, or 01:750:193-194 or chemistry 01:160:159-160 or 161-162, and 171).

The B.A. option requires 51–55 credits (depending on 3-credit or 4-credit elective options), and the B.S. option requires 67–72 credits. No more than one grade of D can be accepted in the courses required for the major.

Declared computer science majors (198) will not receive credit (major or degree) for subsequent enrollment in computer science 110 and 170.

A minimum of seven courses must be taken with the New Brunswick Division of Computer and Information Sciences.

Transition to the Current Requirements

Students who are currently enrolled in the computer science program have the option of satisfying the requirements for the major under the rules that were in effect when they took their first computer science major course or to follow the current requirements. Students taking their first computer science course for the major in fall 2005 or later must follow the current requirements as described in this catalog.

Minor Requirements

The minor consists of six computer science courses, at least two of which are at the 300 or 400 level, chosen in consultation with a departmental adviser. Computer science 110 and 405 cannot be credited toward a minor in computer science. Only courses that count toward the major may be counted toward the minor. No more than one D will be accepted in courses taken toward the minor. A minimum of five courses must be taken with the New Brunswick Division of Computer and Information Sciences.

Internet Certificate Program

The objective of the Internet Certificate Program is to teach the set of principles and skills necessary to build large web-based software applications, to understand the internal workings of Internet protocols, and to maintain and manage large web sites. Students who earn this certificate will include *web designers and implementors, web masters, and network administrators*. The course of study will stress “hands-on” knowledge, with a large number of program-assignment assignments and projects.

The key principles and skills included in this program are distributed systems, World Wide Web networking protocols, network management, web-based software development tools, advanced user interfaces, and web server design. To earn an Internet certificate, students must complete the following courses with a grade of *B* or better in each: 01:198:336, 352, 417, and 476, and 01:198:415 or 431. The certificate is granted in conjunction with completion of a B.A. or B.S. degree.

Honors B.S./M.S. Degree Program in Computer Science

Students with *outstanding* academic performance in the undergraduate computer science program at Rutgers are encouraged to apply to this joint program at the end of their junior year. The program facilitates entry into the graduate program and provides a plan to allow them to meet the requirements of both the B.S. and the M.S. degree in a shortened time frame.

Courses

01:198:110. INTRODUCTION TO COMPUTERS AND THEIR APPLICATION (3)

Lec. 2 hrs., rec. 1 hr. Students planning further study in computer science should take 01:198:111. Credit not given for both this course and 01:198:170. Not open to students with a declared major in computer science or a prebusiness major.

General survey about what computers are and how they are used, including an introduction to computer programming and contemporary application packages.

01:198:111. INTRODUCTION TO COMPUTER SCIENCE (4)

Prerequisite: 01:640:115 or placement in CALC1. For students in science, mathematics, and engineering. Credit not given for both this course and 14:332:252.

Intensive introduction to computer science. Problem solving through decomposition. Writing, debugging, and analyzing programs in Java. Algorithms for sorting and searching. Introduction to data structures, recursion.

01:198:112. DATA STRUCTURES (4)

Prerequisites: 01:198:111 and CALC1 or 14:332:252. Credit not given for both this course and 14:332:351.

Queues, stacks, trees, lists, and recursion; sorting and searching; hashing; complexity of algorithms; graph representations and algorithms.

01:198:113. INTRODUCTION TO SOFTWARE METHODOLOGY (4)

Prerequisite: 01:198:112 or 14:332:351.

Designing and implementing large software using standard software techniques and tools in JAVA and C. Persistent program objects. Memory management and code maintenance.

01:198:170. COMPUTER APPLICATIONS FOR BUSINESS (3)

Lec. 2 hrs., rec. 1 hr. This course is for students seeking admission to Rutgers Business School: Undergraduate–New Brunswick. Limited to prebusiness and business majors. Credit not given for both this course and 01:198:110. Not open to students with a declared major in computer science.

Introduction to business applications of spreadsheet software, computer technology, data communications, network applications, and structured programming.

01:198:205. INTRODUCTION TO DISCRETE STRUCTURES I (4)

Prerequisites: 01:198:111 and 01:640:152. Credit not given for both this course and 14:332:202.

Sets, propositional and predicate logic, logic design, relations and their properties, and definitions and proofs by induction with applications to the analysis of loops of programs.

01:198:206. INTRODUCTION TO DISCRETE STRUCTURES II (4)

Prerequisites: 01:198:205 or 14:332:202 and 01:640:152. Credit not given for both this course and 01:640:477.

Counting (binomial coefficients, combinations), methods of finding and solving recurrence relations, discrete probability, regular expressions and finite automata, basic graph theory.

01:198:211. COMPUTER ARCHITECTURE (4)

Prerequisite: 01:198:112. Credit not given for both this course and 14:332:331.

Levels of organization in digital computer systems; assembly language programming techniques; comparative machine architectures; assemblers, loaders, and operating systems. Programming assignments in assembly language.

01:198:314. PRINCIPLES OF PROGRAMMING LANGUAGES (4)

Prerequisites: 01:198:112 and 205 or 14:332:202.

Syntax, semantics, names and values, control structures, data types, procedures and parameters, scope rules, applicative languages, recursion, very high-level languages, dynamic structures, and object-oriented languages.

01:198:323. NUMERICAL ANALYSIS AND COMPUTING (4)

Prerequisites: 01:640:152 and 250.

Approximation, interpolation, numerical differentiation, integration; numerical solution of nonlinear equations, linear algebraic systems, and ordinary differential equations.

01:198:324. NUMERICAL METHODS (4)

Prerequisite: 01:198:323 or 01:640:373. Credit not given for both this course and 01:640:374.

Computational methods for linear algebraic systems, eigenvalues and eigenvectors, approximation of functions, splines; numerical solution of initial and boundary value problems for differential equations.

01:198:336. PRINCIPLES OF INFORMATION AND DATA MANAGEMENT (4)

Prerequisites: 01:198:112 and 205 or 14:332:202.

Describing and querying various forms of information such as structured data in relational databases, unstructured text (IR), semistructured data (XML, Web), deductive knowledge. Conceptual modeling and schema design. Basics of database management systems services (transactions, reliability, security, optimization). Advanced topics: finding patterns in data, information mapping, and integration.

01:198:344. DESIGN AND ANALYSIS OF COMPUTER ALGORITHMS (4)

Prerequisites: 01:198:112 and 206.

Study of algorithms. Techniques for efficiency improvement. Analysis of complexity and validity for sorting (internal, external), shortest path, spanning tree, connected and biconnected components, and string matching. Introduction to NP-completeness.

01:198:352. INTERNET TECHNOLOGY (4)

Prerequisite: 01:198:211.

TCP/IP protocols, media access protocols, socket programming in C/UNIX, multicasting, wireless and mobile communication, multimedia over the Internet, ATM, switching theory, and network architectures.

01:198:405. SEMINAR IN COMPUTERS AND SOCIETY (3)

Prerequisites: At least one computer science course and one course in sociology, political science, anthropology, or philosophy; senior standing. May not be used for major credit.

Study and discussion of the impact of computers on man and society. For all students interested in exploring the social consequences of computer developments.

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01:198:411. COMPUTER ARCHITECTURE II

Prerequisite: 01:198:211 or 14:332:331.

Characteristics of a modern computer. Topics to be covered include pipelining, instruction level parallelism, VLIW and speculative dynamic super scalar architectures, computer arithmetic, assessing performance, memory hierarchy, input-output, and multiprocessors.

01:198:415. COMPILERS (4)

Prerequisites: 01:198:211 or better or 14:332:331 and 01:198:314.

Study of compilers and interpreters. Parsing, lexical analysis, semantic analysis, code generation, and optimization.

01:198:416. OPERATING SYSTEMS DESIGN (4)

Prerequisites: 01:198:205 and 211 or 14:332:202 and 211.

Batch processing, multiprogramming, time-sharing, job scheduling, synchronization, resource management, protection, hierarchical design, and virtual concepts. Complete design of a simple operating system to be implemented and tested under program load as a project.

01:198:417. DISTRIBUTED SYSTEMS: CONCEPTS AND DESIGN (4)

Prerequisite: 01:198:416.

Introduction to the concepts and design principles used in distributed computer systems. Communication methods, concepts and strategies used in distributed services such as file systems, distributed shared memory, and distributed operating systems.

01:198:424. MODELING AND SIMULATION OF CONTINUOUS SYSTEMS (4)

Prerequisite: 01:198:221 or 323 or 01:640:373 or permission of instructor.

Principles and examples of mathematical models in the physical, economic, and life sciences. Numerical methods for differential equations. Special computers and languages for the simulation of continuous systems. Individual projects.

01:198:425. COMPUTER METHODS IN STATISTICS (4)

Prerequisites: 01:198:206 or equivalent; CALC2. Strongly recommended: Numerical methods (01:198:221, 323, or 01:640:373).

Computer science in applied and theoretical statistics; exploratory data analysis; algorithms for univariate and multivariate statistical analyses; use of statistical libraries; Monte Carlo and simulation.

01:198:428. INTRODUCTION TO COMPUTER GRAPHICS (4)

Prerequisite: 01:198:323 or 01:640:373. Credit not given for both this course and 14:332:474.

Displays, colors, perception, images, sampling, image processing, geometric transformations, viewing and visibility, modeling hierarchies, curve and surface design, animation, lighting, rendering, rasterization, shading, and ray tracing.

01:198:431. SOFTWARE ENGINEERING (4)

Prerequisites: 01:198:314 and 344.

Problems and techniques involved in the specification, design, and implementation of large-scale software systems, studied in conjunction with actual group construction of such a system.

01:198:440. INTRODUCTION TO ARTIFICIAL INTELLIGENCE (4)

Prerequisite: 01:198:314.

Broad introduction to artificial intelligence, including search, knowledge representation, natural language understanding, and computer vision.

01:198:442. TOPICS IN COMPUTER SCIENCE (3-4)

Advanced topics in computer science. Topics vary from year to year according to the interests of students and faculty.

01:198:452. FORMAL LANGUAGES AND AUTOMATA (3)

Prerequisite: 01:198:344.

Finite automata and regular languages; context free languages, pushdown automata and parsing; language hierarchies; Turing machines; decidability and complexity of languages. Applications emphasized throughout.

01:198:476. ADVANCED WEB APPLICATIONS: DESIGN AND IMPLEMENTATION (4)

Prerequisites: 01:198:336 and 417.

Comprehensive overview of current web technologies, including design and implementation principles for web-based applications. Basic principles of scalability, security, reliability, and performance. State-of-the-art review of currently available technologies.

01:198:493,494. INDEPENDENT STUDY IN COMPUTER SCIENCE (BA,BA)

CRIMINAL JUSTICE 202

Faculty of Arts and Sciences

Web Site: <http://www.rci.rutgers.edu/~nbcjm>

Program Director: Arnold G. Hyndman, Dean of Livingston College, A.B., Princeton; Ph.D., California (Los Angeles)

Program Committee:

Douglas H. Blair, *Chair, FAS and Economics*; B.A., Swarthmore; M.A., M.Phil., Ph.D., Yale

Lennox Hinds, *Criminal Justice*; B.S., CUNY (City College); J.D., Rutgers
Paul Hirschfield, *Sociology and Psychology*; B.A., Kalamazoo College; M.A., Ph.D., Northwestern

Douglas Husak, *Philosophy*; A.B., Denison; Ph.D., J.D., Ohio State
Ellen L. Idler, *Sociology*; B.A., College of Wooster; M.A., Rutgers;

M.Phil., Ph.D., Yale
Lee Jussim, *Psychology*; B.A., Massachusetts; Ph.D., Michigan
Susan Lawrence, *Political Science*; B.A., Furman; M.A., Ph.D., Johns Hopkins
Michael G. Maxfield, *Criminal Justice (Newark)*; B.A., Ohio State; M.A., Ph.D., Northwestern

Lisa L. Miller, *Political Science*; B.A., Virginia; M.A., Ph.D., Washington
Edward Rhodes, *FAS and Political Science*; A.B. Harvard; Ph.D., Princeton
Albert R. Roberts, *Criminal Justice*; B.A., C.W. Post; M.A., Long Island;

D.S.W., Maryland
Jackson Toby, *Sociology*; B.A., CUNY (Brooklyn College); M.A., Ph.D., Harvard
Michael Welch, *Criminal Justice*; B.A., Benedictine College; M.A., Missouri
(Kansas City); M.S., Illinois State; Ph.D., North Texas

The program in criminal justice is a comprehensive interdisciplinary program that blends a strong liberal arts education experience with preprofessional instruction in the field of criminal justice. The program provides students with a rich understanding of crime and criminal justice in the United States and abroad. Graduates of the program are well-informed citizens on the topic of crime and justice, and qualified for graduate study or for employment as practitioners in a variety of legal, policy-making, and law enforcement areas.

Major Requirements

The major in criminal justice requires a total of 36 credits distributed as follows:

- | | |
|------------|---|
| 01:202:201 | Introduction to Criminal Justice (3) |
| 01:202:202 | Police (3) |
| 01:202:203 | Prison and Prisoners (3) |
| 01:202:205 | Criminal Procedure (3) or 01:790:247 Law and Politics (3) |
| 01:202:307 | Criminal Justice Research Methods (3) or 01:790:300 Introduction to Political Science Methods (3) or 01:830:323 Research Methods in Social Psychology (4) or 01:830:341, 342 Research in Personality (3) and Laboratory (1) or 01:920:311 Introduction to Social Research (4) |
| 01:920:222 | Criminology (3) |

Nine credits in courses offered by FAS departments relevant to the themes of crime, justice, and the law and drawn

from the approved list of thematic courses. These courses must be chosen from at least two of the following three thematic areas: human behavior, deviance, and crime; social control institutions; and law and ethics.

Nine elective credits taken from criminal justice course offerings. (Only 3 credits at the 200 level will be counted toward the major.)

Only courses completed with a grade of C or better may be counted toward the major. At least two courses (6 credits) must be at the 400 level. Only 3 credits from 01:202:406, 407, or 408 (Internships) may count toward the major. No more than 6 credits of 01:202:495 Independent Study may count toward the major; no more than 3 such credits may be taken in a single term. No more than 18 credits at the 200 level may count toward the major. Courses listed above with subject codes other than 202 may also have prerequisites; such requirements are described under the departments offering these courses.

Approved Thematic Courses

Theme: Human Behavior, Deviance, and Crime

- 01:014:318 Bigotry, Prejudice, and Racism:
Psychological Foundations
- 01:050:324 Wayward Americans
- 01:070:310 Human Aggression
- 01:830:375 Prejudice and Conflict
- 01:830:376 Psychology and African-American
Experience
- 01:920:304 Sociology of Deviant Behavior
- 01:920:306 Race Relations
- 01:920:307 Sociology of Mental Illness
- 01:920:361 Sociology of Drug Use
- 01:920:410 Sociology of Alcohol Problems

Theme: Social Control Institutions

- 01:014:353 Black Community Law and Social Change
- 01:220:395 Law and Economics
- 01:510:421 History of the Legal Profession
- 01:512:404 American Constitutional History from 1865
- 01:790:340 Law and Society
- 01:790:341 Public Administration: American
Bureaucracy
- 01:790:404 Politics of Criminal Justice
- 01:836:370 Law and the Latino Community
- 01:920:349 Law and Society

Theme: Law and Ethics

- 01:512:406 Introduction to American Legal History
- 01:730:342 Social and Political Philosophy through
History
- 01:730:345 Philosophy and the Law
- 01:730:358 Philosophy of Law
- 01:790:373 Legal Philosophy, Rights, and Justice
- 01:790:401 American Constitutional Law
- 01:790:406 Civil Liberties and Civil Rights
- 01:988:307 Women and the Law

Honors Thesis Option

Students who have completed 15 credits toward the major, have senior standing, a 3.4 grade-point average in the major, and a 3.0 grade-point average overall are eligible to elect the honors thesis option. These independent research projects, carried out in the senior year under the supervi-

sion of program faculty, carry 6 credits. The honors program for criminal justice majors may be undertaken in conjunction with a Paul Robeson, Mabel Smith Douglass, or Henry Rutgers honors thesis.

Courses

01:202:201. INTRODUCTION TO CRIMINAL JUSTICE (3)

Societal responses to people and organizations that violate criminal codes; police, courts, juries, prosecutors, defense and correctional agencies, and the standards and methods used to respond to crime and criminal offenders; social forces that affect the evolution of criminal laws.

01:202:202. POLICE (3)

Pre- or corequisite: 01:202:201.

The function of police in contemporary society; the problems arising between citizens and police from the enforcement and nonenforcement of laws, from social changes, and from individual and group police attitudes and practices.

01:202:203. PRISON AND PRISONERS (3)

Pre- or corequisite: 01:202:201.

Origins and methods of revenge, coercive custody, confinement, punishment, rehabilitation, restitution, deterrence, and prisoner education programs are examined. Includes emphasis on current controversies related to jail and prison overcrowding, treatment of violent juveniles and chemically dependent offenders, and AIDS risk assessment of juvenile and adult offenders.

01:202:205. CRIMINAL PROCEDURE (3)

Pre- or corequisite: 01:202:201.

Description and discussion of what is commonly characterized as the "criminal justice process and public policy consideration" through which the substantive criminal law is enforced.

01:202:208. CRIME PREVENTION AND VICTIM ASSISTANCE (3)

Pre- or corequisite: 01:202:201.

Analysis of the concepts and methods underlying major criminal justice endeavors to prevent crimes; examination of research literature concerning the effectiveness of crime prevention policies and strategies; review of policies, programs, and treatment for crime victims and witnesses.

01:202:209. WHITE-COLLAR CRIME (3)

Pre- or corequisite: 01:202:201.

Crimes organized by persons whose economic, political, and privileged positions offer ease and relative impunity in the commission of unusual crimes that are often national and international in scope and that have serious, long-term consequences.

01:202:210. INTRODUCTION TO SECURITY (3)

Pre- or corequisite: 01:202:201.

Principles and methods for screening people, monitoring environments, effective use and care of preventive techniques, preventive response and control, response procedures, legal aspects of security, individual and collective behavior, and developing problems in security such as terrorism and organized vandalism.

01:202:301. HUMAN RIGHTS AND LEGAL REMEDIES (3)

Prerequisite: 01:202:201.

Case studies of denial of human rights on an international level and the legal responses, national and international, to correct deprivation and suppression of such rights.

01:202:302. POLICE ORGANIZATION AND ADMINISTRATION (3)

Prerequisite: 01:202:201.

The effect of organizational structure and administrative procedure on police function; the processes of police recruitment, career advancement, and leadership.

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01:202:303. CORRECTIONAL SYSTEMS (3)

Prerequisite: 01:202:201.

The major types of community-based correctional alternatives ranging from probation, shock incarceration, parole, work-release, overnight and weekend incarceration, and halfway houses to community-based centers; discussion of correctional laws, personnel development, correctional management, controversies, political pressures, and emerging trends in organization and goals.

01:202:304. COURT MANAGEMENT AND ADMINISTRATION (3)

Prerequisite: 01:202:201.

Court organization, management and administration, planning, budgeting, coordination, and personnel effectiveness; judicial standards for improving the quality of justice; development and training of nonjudicial personnel as court administrators.

01:202:305-306. SCIENTIFIC APPLICATIONS IN JUSTICE (3,3)

Prerequisite: 01:202:201.

Contributions of physical science to crime prevention, detection, and prosecution; significant forensic aspects of chemistry, biology, geology, and physics as applied to prevention planning, contraband control, preserving evidence, ballistics, optics, sound, and sampling natural materials.

01:202:307. CRIMINAL JUSTICE RESEARCH METHODS (3)

Prerequisite: 01:202:201.

Underlying research concepts, methodologies, and techniques appropriate for application in the main behavioral environments of justice; application of course content to justice agencies, policies, and programs.

01:202:308. ADVANCED CRIMINAL JUSTICE RESEARCH METHODS (3)

Prerequisites: 01:202:201, 307.

Advanced research concepts, methodologies, and techniques appropriate for application in the main behavioral environments of justice; application of course content to justice agencies, policies, and programs.

01:202:309. CRIMINAL LAW: THEORY AND PRACTICE (3)

Formerly 01:202:204. Prerequisite: 01:202:201.

Study of the substantive criminal laws and judicial opinions with emphasis on the New Jersey Code of Criminal Justice to enhance insights into an understanding of the potentialities and limitations on the law as an instrument of social control.

01:202:310. VICTIMOLOGY AND DOMESTIC VIOLENCE (3)

Prerequisite: 01:202:201.

Definitions and scope of violent crime in society. Includes a review of the issues, prevalence, myths, policies, programs, and services aimed at victims of violent crimes. The expanding role of the courts, police, battered women shelters, victim / witness assistance programs, crisis intervention units, and legislation highlighted.

01:202:311. POLITICAL TERRORISM (3)

Prerequisite: 01:202:201.

Analysis of diverse organizations using terror, starvation, torture, and murder for political objectives.

01:202:312. CRIMES AGAINST HUMANITY (3)

Prerequisite: 01:202:201.

Applies the concept of "crimes against humanity," as developed at the Nuremberg trials, to an analysis of similar events.

01:202:322. JUVENILE JUSTICE (3)

Prerequisite: 01:202:201.

Examination of the recent political history of American juvenile justice; the policies, trends, and programs in juvenile justice during the past two decades. Focus on historical developments, the full range of contemporary alternatives for counseling and treatment, legal issues and functions of juvenile justice agencies, an exploration of future directions, and a reform agenda for the next two decades.

01:202:324. JUSTICE PLANNING (3)

Prerequisite: 01:202:201.

Survey of changing social methods for developing comprehensive short-term and long-term planning documents for criminal justice system components; planning documents explained and justified in oral and written presentations.

01:202:327. SEX, CRIME, AND JUSTICE (3)

Prerequisite: 01:202:201.

Survey of changing social values about sex, changing criminal codes about sex crimes, changing law enforcement policies, and procedures in prosecuting sex offenders, and emerging legal doctrines about privacy and sexual rights.

01:202:405. IDEAS IN JUSTICE (3)

Prerequisites: 01:202:201 and senior standing.

Twentieth-century contributions to the development and application of penology, criminology, and criminal and social justice; study of the main ideas and key events that influenced the ideas and ideals evident in our social institutions.

01:202:406,407,408. INTERNSHIP IN CRIMINAL JUSTICE (3,3,3)

Prerequisites: 01:202:201, 3 credits in criminal justice, senior standing, and permission of instructor.

The internships are 120 hours in a local criminal / administration of justice agency (3 credits). Involves an intensive learning experience under professional agency supervision, as well as periodic symposiums and study sessions, research, term papers, and oral presentations.

01:202:422. CRISIS INTERVENTION IN CRIMINAL JUSTICE SETTINGS (3)

Prerequisite: 01:202:201.

Focuses on the conceptual framework for crisis intervention practice, including crisis theory, crisis concepts, crisis intervention models and strategies, and guidelines for evaluating program outcomes.

01:202:495. INDEPENDENT STUDY (1-3)

Prerequisites: Permission of instructor and program.

Independent study under the direction of a member of the faculty.

01:202:496. SPECIAL TOPICS (3)

Prerequisite: 01:202:201.

Focuses on critical issues in criminal justice. May encompass topics related to law, law enforcement, the courts, corrections, etc. Specific issues are determined by the instructor.

01:202:498,499. HONORS THESIS IN CRIMINAL JUSTICE (3,3)

Prerequisite: Permission of program. For majors only. Students must have completed 15 credits toward the major, have senior standing, a 3.4 GPA in the major, and a 3.0 GPA overall.

Individual research projects to be written as an honors thesis.

CRIMINOLOGY

Administered by the Department of Sociology, Faculty of Arts and Sciences

Web Site: <http://sociology.rutgers.edu/undergraduateprogram/criminologycert.htm>

Criminology Certificate

The Criminology Certificate is an interdisciplinary curriculum for students interested in pursuing careers in criminal justice, law, and offender rehabilitation. The program provides students with theoretical and practical knowledge relevant to work in the criminal justice system. It examines current sociological, psychological, and legal issues in the study of crime and criminal justice.

A Criminology Certificate is awarded to students who complete 24 credits or eight courses including:

1. The following five courses:
01:830:101 General Psychology (3)
01:830:340 Abnormal Psychology (3)
01:920:101 Introduction to Sociology (3)
01:920:222 Criminology (3)
01:920:306 Race Relations (3)
2. At least one of the following:
01:920:304 Sociology of Deviant Behavior (3)
01:920:307 Sociology of Mental Illness (3)
01:920:349 Law and Society (3)
3. Any two courses listed under Criminal Justice 202.

Only courses completed with a grade of C or better may be counted toward the Criminology Certificate. For complete information, contact the adviser for the Criminology Certificate Program in the Department of Sociology.

Note: The Criminology Certificate is awarded only with or subsequent to the awarding of the baccalaureate degree in an approved major.

DANCE 203, 206

Department of Dance, Mason Gross School of the Arts

Web Site: <http://www.masongross.rutgers.edu/dance/dance.html>

See the Mason Gross School of the Arts section for faculty listing and B.F.A. program information.

The bachelor of arts major program in dance combines a broad experience in the liberal arts with a specialization in the area of dance. It prepares students to advance beyond the bachelor's degree in performance, teaching, dance criticism, or history. Audition required.

Major Requirements: B.A. Program

Dance majors in the B.A. program are required to complete all of the following courses listed under 07:203 and 07:206. B.A. majors are required to take either 07:206:276 Afro-American / African Dance or 07:206:277 Flamenco Dance. It is recommended that dance majors elect additional courses in the major after consultation with the department undergraduate director. All B.A. majors are required to perform in at least one public performance sponsored by the Department of Dance.

Courses (203)

07:203:115. DANCE APPRECIATION: EXPERIENCING THE ART OF HUMAN MOVEMENT (3)

Open only to dance majors.

Students observe and describe dance as a performing art. Guest artists present live performance demonstrations. Descriptive analytic writing required.

07:203:123. MODERN DANCE I (2)

Development of fundamental movement skills and body awareness. Exploration of movement as dance.

Field trip: approximately \$20.

07:203:124. MODERN DANCE II (2)

Prerequisite: 07:203:123 or permission of instructor. Dance majors may repeat once for credit.

Continued development of movement skills and techniques, problem solving and improvisation.

Field trip: approximately \$20.

07:203:149. BALLET I (2)

Dance majors may repeat once for credit.

The language of ballet as an art form with emphasis upon traditional, academic, technical steps, and vocabulary.

Field trip: approximately \$20.

07:203:150. BALLET II (2)

Prerequisite: 07:203:149 or permission of instructor. Dance majors may repeat once for credit.

Continued development of technical steps and vocabulary, body alignment, and concepts of ballet aesthetics.

Field trip: approximately \$20.

07:203:225. MODERN DANCE III (2)

Prerequisite: 07:203:124 or permission of department. Dance majors may repeat for credit.

Practice in intermediate level skills in modern dance technique.

07:203:226. MODERN DANCE IV (2)

Prerequisite: 07:203:225. Dance majors may repeat for credit.

Continued development of intermediate skills in modern dance technique.

07:203:329. DANCE COMPOSITION (2)

Prerequisites: 07:203:225 and 07:206:242.

Development of fundamental skills in choreography.

Courses (206)

07:206:100. DANCE ASSEMBLY (N5)

Required of dance majors during each term of enrollment as a declared dance major. Grade based upon attendance.

07:206:126. RHYTHMIC ANALYSIS (2)

Prerequisites: 07:203:123, 124 or permission of instructor.

Analysis of rhythmic structure relative to movement. Sight reading note values, movement dictation, and composition.

07:206:161. PRODUCTION STUDY (2)

To be repeated for a total of 2 credits.

Crew assignments in lighting, publicity, and other areas of dance production.

07:206:237. DANCE PRODUCTION I (3)

Theoretical and practical application of the skills necessary to produce and direct a dance concert.

07:206:242. DANCE IMPROVISATION IA (2)

Open only to dance majors.

Experience in dance improvisation including the use of such stimuli as music, dramatic situations, kinetics, movement design, and spatial sensing as potential sources of movement and partner interaction.

07:206:276. AFRO-AMERICAN/AFRICAN DANCE (2)

Open only to dance majors; B.A. majors must have completed 07:203:225 before taking this course.

The study of traditional African dance forms and how they influence contemporary Afro-American dance forms, historical development, performance, and terminology.

07:206:277. FLAMENCO DANCE (2)

Open only to dance majors; B.A. majors must have completed 07:203:225 before taking this course.

The study of traditional Flamenco dance forms, historical development, performance techniques, and terminology.

07:206:325. KINESIOLOGY FOR DANCERS (3)

Functional human anatomy and the study of the scientific basis of human movement as they relate to dance training.

ECONOMICS

07:206:402. INTRODUCTION TO LABAN MOVEMENT ANALYSIS (3)

Prerequisites: 07:203:125, 126. Open only to seniors.

Notation and description of the dynamics, shape, and spatial forms in movement using Laban Movement Analysis.

07:206:441. DANCE HISTORY—WORLD SURVEY (3)

Open only to seniors.

Study of dance in diverse cultures and times through film, video, reading, lectures, and directed research.
Activity fee for films and field trips.

07:206:442. DANCE HISTORY—20TH CENTURY (3)

Open only to seniors.

Twentieth-century dance artists and dance masterpieces in the Western theater tradition. Influences on contemporary concert dance of diverse cultures and artistic and social movements.
Activity fee for films and field trips.

DENTISTRY

(See Medicine and Dentistry in this section and also see Health Professions in the Student Life and Services section of this catalog)

DOUGLASS COLLEGE COURSES

(See Arts and Science 090)

EAST ASIAN LANGUAGES AND AREA STUDIES 214

(See also Asian Studies 098, Chinese 165, Japanese 565, Korean 574)

Department of Asian Languages and Cultures, Faculty of Arts and Sciences

Program Director: Ching-I Tu

See Chinese 165, Japanese 565, and Korean 574 for faculty listing. For a list of additional faculty related to East Asian languages and area studies, contact the program director in the department.

Major Requirements

The interdisciplinary major consists of a minimum of 12 credits in one of the East Asian languages, normally Chinese, Japanese, or Korean, beyond the intermediate level (202), and 18 credits of appropriate courses in other disciplines such as anthropology, economics, history, geography, philosophy, political science, sociology, religion, art, or literature of East Asia. These 18 credits of course work must be taken from more than two different disciplines and properly distributed between upper- and lower-level courses; at least 9 credits should be taken at the 300 level or above. For students with a concentration in Chinese, at least one course in literary Chinese is required. Students in the program should consult with the program director for selection of courses and development of a concentration.

All courses must be passed with a grade of C or better to be counted toward the major. For courses acceptable for the area studies component of this degree program, please

refer to the listing of courses approved for the minor in Asian studies; see the Asian Studies 098 section of this catalog.

Minor Requirements

An interdisciplinary minor is administered by the Asian studies program. See Asian Studies 098 for details.

Departmental Honors Program

To qualify, a student must have a cumulative grade-point average of 3.0 or better and a grade-point average of 3.4 or better in the major at the end of the junior year. At that time, the student should formally apply to the chairperson for admission to the honors program. In addition to completing all requirements for the major, candidates are required to register for 01:165:497-498 Honors in Chinese, 01:565:497,498 Honors in Japanese, 01:574:497,498 Honors in Korean, or the equivalent; write an honors paper under the guidance of an assigned faculty member; and take a comprehensive examination at the end of the senior year.

Courses

01:214:241. EAST ASIAN CIVILIZATIONS: TRADITIONAL ERA (3)

Credit not given for both this course and 01:098:241.

Introduction to traditional Chinese, Japanese, and Korean civilizations, including governmental institutions, educational systems, belief systems, language, literature, art, and everyday life.

01:214:242. EAST ASIAN CIVILIZATIONS: MODERN ERA (3)

Credit not given for both this course and 01:098:242.

Introduction to modern Chinese, Japanese, and Korean civilizations, including the impact of modernization, East-West contact, governmental institutions, belief systems, educational systems, language, literature, art, and everyday life.

01:214:310. WRITING AND LITERACY IN EAST ASIA (3)

General survey of writing and literacy in the East Asian countries of the Sinitic cultural sphere.

01:214:338. RELIGIOUS THEMES IN EAST ASIAN LITERATURE (3)

Credit not given for both this course and 01:840:338.

Religious ideas and attitudes as expressed in Indian, Chinese, and Japanese classics.

ECONOMICS 220

Department of Economics, Faculty of Arts and Sciences

Web Site: <http://economics.rutgers.edu>

Chairperson: Barry Sopher

Director of Undergraduate Studies: Thomas J. Prusa

Undergraduate Adviser: Jeffrey I. Rubin

Professors:

Douglas H. Blair, B.A., Swarthmore College; M.A., M.Phil., Ph.D., Yale
Michael D. Bordo, B.A., McGill; M.S. London School of Economics; Ph.D., Chicago
Roberto Chang, B.S.S., Universidad Catolica Del Peru; Ph.D., Pennsylvania
Manoranjan Dutta, B.A., M.A., Calcutta; Ph.D., Pennsylvania
Ira N. Gang, B.A., Johns Hopkins; M.A., Ph.D., Cornell
Gary A. Gigliotti, B.A., Pittsburgh; M.Phil., Ph.D., Columbia
Joseph P. Hughes, A.B., Davidson College; Ph.D., North Carolina
Mark R. Killingsworth, A.B., Michigan; B.Phil., Ph.D., Oxford
Roger W. Klein, A.B., California (Berkeley); Ph.D., Yale
Richard P. McLean, B.S., Pennsylvania State; M.A., M.S., Ph.D., SUNY (Stony Brook)

Martin K. Perry, A.B., *Missouri (Columbia)*; A.M., Ph.D., *Stanford*; J.D., *Rutgers (Newark)*

Thomas J. Prusa, B.A., *Georgetown*; M.A., Ph.D., *Stanford*

Hugh T. Rockoff, A.B., *Earlham College*; M.A., Ph.D., *Chicago*

Jeffrey I. Rubin, A.B. *Rutgers*; Ph.D., *Duke*

Louise B. Russell, *Research Professor, Institute for Health, Health Care Policy, and Aging Research*; B.A., *Michigan*; Ph.D., *Harvard*

Joseph J. Seneca, B.S., M.A., Ph.D., *Pennsylvania*

John Tomas Sjöström, B.A., *Stockholm (Sweden)* Ph.D., *Rochester*

Barry Sopher, B.A., Ph.D., *Iowa*

Robert C. Stuart, B.C., *British Columbia*; M.S., Ph.D., *Wisconsin*

Hiroki Tsurumi, B.Comm., *Hitotsubashi (Japan)*; M.A., *Saskatchewan*; Ph.D., *Pennsylvania*

Eugene N. White, B.A., *Harvard*; B.A., *Oxford*; M.A., Ph.D., *Illinois*

Associate Professors:

Rosanne Altshuler, B.A., *Tufts*; Ph.D., *Pennsylvania*

Bruce Mizrach, A.B., M.A., *Tufts*; Ph.D., *Pennsylvania*

Neil Sheflin, B.A., *SUNY (Stony Brook)*; Ph.D., *Rutgers*

Hilary Sigman, B.A., *Yale*; M.Phil., *Cambridge*; Ph.D., *Massachusetts Institute of Technology*

Norman R. Swanson, B.A., *Waterloo (Canada)*; M.A., Ph.D., *California (San Diego)*

Assistant Professors:

Colin Campbell, B.A., *Columbia*; Ph.D., *Northwestern*

Oriol Carbonell-Nicholau, B.A., M.A., *Universitat Pompeu Fabra (Spain)*; Ph.D., *New York*

John S. Landon-Lane, B.Sc. (Hons), M.Comm., *Canterbury (New Zealand)*; M.A., Ph.D., *Minnesota*

Filippo Occhino, *Laurea in Economic and Social Sciences*, M.A., *Università Commerciale Luigi Bocconi di Milano (Italy)*; Ph.D., *Chicago*

Daijiro Okada, B.A., M.A., *Tohoku (Japan)*; Ph.D., *SUNY (Stony Brook)*

Professors Emeriti:

Robert J. Alexander, B.A., M.A., Ph.D., *Columbia*

Monroe Berkowitz, A.B., *Ohio*; M.A., Ph.D., *Columbia*

Jessie Hartline, B.S., *Maryland*; M.B.A., *New York*; Ph.D., *Rutgers*

Matityahu Marcus, B.A., *CUNY (Brooklyn College)*; Ph.D., *Brown*

Shanti S. Tangri, B.S., *Punjab (India)*; M.A. *East Punjab University College*; Ph.D., *California (Berkeley)*

Michael K. Taussig, B.A., *Colorado*; Ph.D., *Massachusetts Institute of Technology*

Economics is the study of individual and collective decision making given the limited availability of material resources. The economics curriculum is designed to contribute to a liberal arts education by increasing a student's understanding of the economic problems that confront individuals and societies and to prepare students for graduate work in a variety of fields. Majors are expected to develop skills that permit critical analysis of important economic problems, and are exposed to a wide variety of economic policy issues.

The curriculum stresses such skills as gathering and interpreting information, predicting the consequences of specific decisions, evaluating alternative choices, and managing public and private enterprises. Computer applications are a major component of instruction. The economics major provides a sound basis for a variety of professional careers, including graduate study in economics, business, management science, law, and public policy. A successful major also is well prepared for employment opportunities that demand strong analytical skills. Students who anticipate business careers may find the options in financial economics and international economics particularly beneficial.

The department's web site contains sample course sequences for students interested in preparing for graduate school in economics, law school, an M.B.A. program, or employment in the public and private sectors. Visit <http://www.economics.rutgers.edu/ugradprogram/samplecourseoffer.shtml> for more information.

Major Requirements

The foundation of the curriculum in economics consists of 01:220:102, 103, 203, 204, and 322. It also requires one term of statistics (01:960:211 or 285) with a grade of C or better. Course 01:960:285 is preferred to 211, and, if possible, 01:960:285 should be taken in the term immediately prior to the one in which the student takes 01:220:322. One term of calculus (01:640:135 or equivalent) with a grade of C or better also is required. Second terms of both calculus and statistics are strongly recommended. These seven courses (five in economics, one in statistics, and one in mathematics) *plus* seven electives within economics (or, under certain options, a limited number of courses from related fields) constitute the major. Engineering students who take 01:220:200 Economics Principles and Problems may use this in place of 01:220:102 and 103, provided they take eight electives instead of seven. Credit is *not* given for 01:220:200 and for 01:220:102 or 103.

An economics major may take a maximum of three electives that have *only* 01:220:102 and 103 (or only 200) as prerequisites. Traditionally most transfer courses that count as economics electives fall into this category. An economics major who has taken 200 in lieu of 102 and 103 may take a maximum of four electives that have *only* 102 and 103 as prerequisites.

For both first-year and transfer students, a maximum of three economics courses taken outside the Department of Economics at Rutgers–New Brunswick/Piscataway may be applied toward the major. Transfer students who wish to apply transfer courses toward the major must first obtain approval from the undergraduate adviser. Enrolled economics majors who wish to take an economics course outside Rutgers–New Brunswick/Piscataway must have prior approval from the undergraduate adviser. Some exceptions are made for certain courses offered by the Department of Environmental and Business Economics at Cook College. Students should consult the economics department for further information.

Economics majors can get elective credit for two accounting courses offered by the Rutgers Business School–Undergraduate program. Students may take 33:010:272 and 276. These courses will count toward the required seven electives (as one or two of the permitted courses from outside the New Brunswick/Piscataway Department of Economics). Accounting courses are considered courses that only require 01:220:102 and 103.

The Department of Economics does allow economics majors to receive one credit for an approved internship. See 01:220:397 for more information or contact the undergraduate adviser.

To declare a major in economics, a student must have a minimum grade of C in both 01:220:102 Introduction to Microeconomics and 01:220:103 Introduction to Macroeconomics. The student also must attain a minimum grade of C in the calculus course required by the department.

To satisfactorily complete the major, students must have a minimum cumulative grade-point average of 2.0 in the major. A grade of C or better is required in 102, 103, 203, 204, the required statistics course, and the required calculus course. In addition, only one course with a grade of D can count toward the major.

Students who find a particular area of study within economics especially interesting may wish to explore it in some depth. Accordingly, the curriculum offers the following options for focused study within economics:

Comparative Systems and Planning	Labor
Economic Development	Managerial Economics
Economic History	Mathematical Economics
Economic Theory	Monetary Economics
Financial Economics	Public Economics and Policy
Industrial Organization	Quantitative Methods
International Economics	Resource Management
	Urban Economics

Detailed descriptions of these options and all the department's courses and nondepartmental courses approved under these options can be found on the department's web site.

Minor Requirements

A minor in economics consists of 01:220:102 (with a grade of C or better) and 103 (with a grade of C or better) and four additional economics (220) courses. Only one course with a grade of D can count toward the minor. Only one economics course outside the Department of Economics at Rutgers–New Brunswick / Piscataway will be accepted toward the minor. Enrolled students who wish to take the one economics course outside Rutgers–New Brunswick / Piscataway must have prior approval from the undergraduate adviser. Some exceptions are made for certain courses offered by the Department of Environmental and Business Economics at Cook College. Students should consult the economics department for further information.

Departmental Honors Program

At the end of their junior year, eligible majors (with a cumulative grade-point average of 3.0 overall and 3.4 in economics) are invited to apply for the departmental honors program.

The honors program consists of a total of 6 credits and runs through both terms of the senior year. Students in the honors program write a senior honors thesis under the supervision of a faculty member. The thesis topic is chosen by the student in consultation with his or her supervisor and with the approval of the department. Topics vary widely, but original investigations of important economic problems are encouraged. Honors students participate in 01:220:493, 494 Senior Honors Seminar I, II, a two-term seminar, during their senior year. Each student is expected to present their research findings in the seminar.

Certificate Program

Global Economics Certificate

This certificate program offers an enriched study for students interested in understanding the emerging global economy. The certificate, which is part of the university's Global Studies Associate Program, requires language training, training in related disciplines, intensive work in international economics and economic development, and participation in the activities of the Rutgers Global Program, as well as completion of a major in economics, to provide a broad interdisciplinary view.

The certificate program offers excellent preparation for students planning a career in international business or finance or in international public service, and an excellent base for graduate study in economics, business, or law.

Requirements

1. This program is open only to economics majors.
2. Students must submit a written application to be approved by the economics department's adviser on global studies (who is appointed by the department chair).
3. Students must complete all economics major requirements subject to the following restrictions:
 - a. Two courses in international economics (300 and 335, 300 and 336, or 335 and 336).
 - b. Two courses with an emphasis on the economic development of other nations, including Economic Development (339), European Economic History (343), Economics of Latin America (346), Economics of India (357), Economics of Japan (358), Economics of Asia (359), Comparative Economic Systems (362), and Economics of the USSR and Russia (378). This list may be revised; students should check with the economics adviser on global studies for the most up-to-date list.
4. The student must complete all of the requirements set up by the Global Program, including:
 - a. An international experience (study abroad, work with an international firm or public agency, or some other activity that significantly enriches the classroom experience) approved in advance by the economics adviser on global studies.
 - b. A minimum of six 3-credit courses of an international character in the following related departments: anthropology, history, political science, psychology, and sociology. At least three courses must be in one department; all must have a global emphasis and be approved in advance by the economics adviser on global studies.
 - c. Demonstrated proficiency in a relevant foreign language, defined as qualifying for a 300-level course in that language.
 - d. Participation in extracurricular global programs events.
 - e. Participation in an interdisciplinary "exit seminar" for all global programs certificate students.

Courses

01:220:102. INTRODUCTION TO MICROECONOMICS (3)

Pre- or corequisite: 01:640:111, 112 or 115 or calculus placement.

The market system and alternative mechanisms for determining prices and allocating resources. Economic analysis of monopoly, cartels, wage and price controls, pollution, and other contemporary problems. The role of government in promoting economic efficiency.

01:220:103. INTRODUCTION TO MACROECONOMICS (3)

Pre- or corequisite: 01:640:111, 112 or 115 or calculus placement.

Determinants of aggregate employment and national income; evaluation of government policies to alleviate inflation and unemployment. Money, banking, and monetary policy. International trade and finance and the prospects for world economic development.

01:220:200. ECONOMIC PRINCIPLES AND PROBLEMS (3)

Pre- or corequisite: 01:640:111, 112 or 115 or calculus placement. Open only to engineering students. Credit not given for both this course and 01:220:102 and 103. 01:220:200 may be used in place of 01:220:102 and 103 to satisfy the prerequisite for more advanced courses.

Economic principles and their application to current problems.

01:220:203. INTERMEDIATE MICROECONOMIC ANALYSIS (3)

Prerequisites: 01:220:102, 103; 01:640:135 or equivalent.

Households and firms as maximizing agents; implications for demand and supply of goods and productive services in competitive and monopolistic markets; general equilibrium; welfare economics.

01:220:204. INTERMEDIATE MACROECONOMIC ANALYSIS (3)

Prerequisites: 01:220:102, 103; 01:640:135 or equivalent.

Modern and classical theories of income determination, stabilization, and economic growth; emphasis on unemployment and inflation.

01:220:300. INTERNATIONAL ECONOMICS (3)

Prerequisites: 01:220:102, 103. Major credit may be earned for only two of the three courses 01:220:300, 335, 336.

Pure or "real" aspects of international trade, including the basic comparative advantage model, commercial policy (tariffs, quotas, etc.), economic integration, role of international trade in economic development. Monetary aspects of international trade, including international capital movements, foreign exchange market, concept and measurement of balance of payments, alternative means of correcting disequilibrium in the balance of payments, and international monetary arrangements.

01:220:301. MONEY AND BANKING (3)

Prerequisites: 01:220:102, 103.

Economic significance of money; structure, history, and present state of the American monetary system; credit, banking, and Federal Reserve; instruments of credit control; FED and treasury policies; monetary reform, monetary theory and policy.

01:220:302. LABOR ECONOMICS (3)

Prerequisites: 01:220:203, 322.

The firm's labor demand, the household's labor supply, and wage determination in competitive and noncompetitive markets. Economics of unions. Human capital, occupational choice, wage structure, and unemployment.

01:220:303. LABOR INSTITUTIONS AND MARKETS (3)

Prerequisites: 01:220:102, 103.

Private and public employee unions, industrial relations, and collective bargaining. Public regulation of labor markets including industrial safety and wage levels.

01:220:304. SPECIAL TOPICS IN LABOR MARKETS (3)

Prerequisites: 01:220:203, 322.

Analysis of topics such as hours of work, fertility and population, mobility, job search, and unemployment. Investment in human capital, wage and retirement policies, and occupational training.

01:220:305. AMERICAN ECONOMIC HISTORY (3)

Prerequisites: 01:220:102, 103.

Long-term trends in economic growth and institutions from the colonial period to World War II. Development of transportation and industry. Effects of technological change and immigration. Economics of slavery. Monetary history and government regulation.

01:220:308. INTRODUCTION TO MANAGERIAL ECONOMICS (3)

Prerequisites: 01:220:102, 103.

Application of contemporary economic theory to managerial decisions and to public policy affecting business.

01:220:311. METHODS OF COST-BENEFIT ANALYSIS (3)

Prerequisites: 01:220:203, 322.

Introduction to theoretical and applied welfare economics. Theories and social welfare; the normative basis for and practical techniques of cost-benefit analysis. Selected applications.

01:220:316. HEALTH ECONOMICS (3)

Prerequisites: 01:220:203, 322.

Medical care costs; production of health; demand for health care and insurance; health services personnel; physician and hospital behavior; cost containment; review and evaluation of public programs.

01:220:322. ECONOMETRICS (3)

Prerequisites: 01:220:102, 103; 01:960:211 or 285 or equivalent; 01:640:135 or equivalent. Credit not given for both this course and 01:220:326.

Introduction to the application of statistical methods for the estimation, testing, and prediction of economic relationships. Emphasizes ordinary least squares regression and problems in its application. Extensive use of microcomputers. Special topics may include limited dependent variable models, simultaneous equation methods, and time-series methods.

01:220:326. ECONOMETRIC THEORY (3)

Prerequisites: 01:220:102, 103; 01:960:211 or 285; 01:640:136 or 152. Credit not given for both this course and 01:220:322.

Introduction to econometric theory and applications. Regression-based estimators derived and their statistical properties established. Topics include linear regression model and its extensions in economics, full information maximum likelihood estimators and test procedures, and other nonlinear methods. Computer applications of these methods employed.

01:220:327. HISTORY OF ECONOMIC THOUGHT (3)

Prerequisites: 01:220:102, 103.

Historical examination of the major concepts of economic theory. Covers all major traditions within economic thought, with special emphasis on the school of classical political economy.

01:220:330. URBAN AND REGIONAL ECONOMICS (3)

Prerequisites: 01:220:203, 322.

Application of market analysis, location theory, and public choice theory to urban areas. Analysis of urban problems such as housing, transportation, segregation, zoning, and public safety.

01:220:331. ECONOMICS OF CRIME (3)

Prerequisites: 01:220:102, 103, or 200.

Economic analysis of crime and the criminal justice system, criminal behavior, law enforcement, crime prevention, sentencing, capital punishment, organized crime, the war on drugs.

01:220:332. ENVIRONMENTAL ECONOMICS (3)

Prerequisites: 01:220:203, 322. Credit not given for both this course and 11:373:363.

Economic basis of problems of air and water pollution and general environmental quality. Issues relating to externalities and public goods. Economic solutions to problems of environmental quality.

01:220:334. ENERGY ECONOMICS (3)

Prerequisites: 01:220:102, 103, or 200.

Economic analysis of energy problems. Critical examination of government energy policies.

01:220:335. INTERNATIONAL TRADE (3)

Prerequisites: 01:220:203, 322. Major credit may be earned for only two of the three courses 01:220:300, 335, 336.

Theories analyzing the gains from and causes of the international exchange of goods and services. The impact of commercial policy and other government policies on these gains and resource allocation.

01:220:336. INTERNATIONAL BALANCE OF PAYMENTS (3)

Prerequisites: 01:220:204, 322. Major credit may be earned for only two of the three courses 01:220:300, 335, 336.

Theory of the balance of payments and balance-of-payments adjustment. International financial system, foreign exchange market, determinants of the trade balance and capital accounts, and the impact of government financial policies in the open economy.

01:220:337. ECONOMICS OF THE EUROPEAN UNION (3)

Prerequisites: 01:220:203, 204, 322.

Intraregional macroeconomic analysis of the European Union, elimination of all trade barriers, integration of capital and labor markets, coordination of monetary and fiscal policies, the Euro currency.

01:220:339. ECONOMIC DEVELOPMENT (3)

Prerequisites: 01:220:203, 204, 322.

Theories and experience of qualitative and quantitative changes involved in the process of raising living standards in less developed countries.

01:220:340. ECONOMICS OF INCOME INEQUALITY AND DISCRIMINATION (3)

Prerequisites: 01:220:102, 103.

Income distribution in the United States and elsewhere; the roles of occupation, education, and discrimination. Government policies concerning inequality, discrimination, and poverty.

01:220:341. INDUSTRIAL ORGANIZATION (3)

Prerequisites: 01:220:203, 322.

Theories of firm and market behavior. Evidence on relationships between structure, conduct, and performance. Includes pricing, profitability, innovation, and advertising.

01:220:342. ECONOMICS OF INNOVATION AND INTELLECTUAL PROPERTY (3)

Prerequisites: 01:220:203, 322.

Incentives to innovate, economic models of innovation, intellectual property protection including patents and copyrights, government programs to stimulate innovation.

01:220:343. EUROPEAN ECONOMIC HISTORY (3)

Prerequisites: 01:220:203, 204, 322.

Emergence of the modern economy in Europe from the 16th to the 20th century. Price revolution and mercantilism. Industrial revolution in England and the continent and the formation of international markets. The Great Depression and renewed prosperity.

01:220:344. FINANCIAL AND MONETARY HISTORY OF THE UNITED STATES (3)

Prerequisites: 01:220:203, 204, 322.

Development of financial institutions and money and capital markets. Central banking and the Federal Reserve system. Gold standard and floating exchange rates. Financial panics and economic crises.

01:220:348. ECONOMICS OF SOCIAL WELFARE PROGRAMS (3)

Prerequisites: 01:220:102, 103.

Analysis of efficiency and equity effects of government welfare programs including cash assistance and social security. Evaluation of alternative assistance proposals.

01:220:349. ECONOMICS OF TRANSITION (3)

Prerequisites: 01:220:203, 204, 322.

Economic analysis of the policies and performance of the transition economies of the former Soviet Union and Eastern Europe.

01:220:356. ECONOMICS OF LATIN AMERICA (3)

Prerequisites: 01:220:203, 204, 322. Credit not given for both 01:220:346 and 356.

Survey of Latin American economic patterns and problems; specific studies of selected national economies and their relation to the world economy.

01:220:357. ECONOMICS OF INDIA (3)

Prerequisites: 01:220:102, 103.

Examination of Indian economy from independence until today; tools for analyzing Indian economy and other developing economies.

01:220:358. ECONOMICS OF JAPAN (3)

Prerequisites: 01:220:203, 204, 322.

Study of the modernization of the first non-Western industrialized economy.

01:220:359. ECONOMICS OF ASIA (3)

Prerequisites: 01:220:102, 103.

Major Asian economies (excluding Japan) in four units: Asia's newly industrializing economies (Korea, Taiwan, and Hong Kong); Southeast Asia; China and Central Asia; India and South Asia. Focus on Green Revolution in Asia, Asian industrialization and structural change, and the changing pattern of comparative advantage in United States-Asia economic relations.

01:220:360. PUBLIC ECONOMICS (3)

Prerequisites: 01:220:203, 322.

Rationale for the public sector; public expenditure theory; economics of political process; expenditure structure and growth; incidence and incentives of specific taxes; fiscal incidence; stabilization.

01:220:362. COMPARATIVE ECONOMIC SYSTEMS (3)

Prerequisites: 01:220:102, 103, or permission of instructor.

Comparative analysis of differing economic systems with emphasis on plan / market comparisons and the nature of transitions in formerly planned economies.

01:220:363. ECONOMICS OF TAXATION (3)

Prerequisites: 01:220:203, 322.

Structure of U.S. tax system. Effects on the allocation of resources and economic growth; distribution of the burden of taxation across income groups.

01:220:369. STATE AND LOCAL PUBLIC FINANCE (3)

Prerequisites: 01:220:203, 322.

Evolution of federalism; analysis of expenditure and revenue decisions and intergovernmental grants; discussion of stabilizing and distributional aspects of state-local finances; specific state-local fiscal problems.

01:220:370. ECONOMIC GROWTH (3)

Prerequisites: 01:220:203, 204, 322.

Theories, experience, and measurement of quantitative changes in output, employment, price levels, and other economic aggregates in modern developed countries.

01:220:375. WOMEN AND THE ECONOMY (3)

Prerequisites: 01:220:203, 322.

Description and analysis of women's economic status. Theories of discrimination against women in the labor market, including neoclassical, institutional, and Marxian. Women's work in the home analyzed from three perspectives: household utility maximization, patriarchy, and a sex-gender system. Application of theories to case studies.

01:220:377. ECONOMICS OF POPULATION (3)

Prerequisites: 01:220:102, 103.

Theoretical and empirical study of the interrelations between population change and economic change in developed as well as less developed countries.

01:220:378. ECONOMIES OF THE USSR AND RUSSIA (3)

Prerequisites: 01:220:203, 204, 322.

Analysis of the former Soviet economic system and attempted reforms through Perestroika: the transition to markets in the post-Soviet era in Russia and the Commonwealth of Independent States.

01:220:379. MARXIAN ECONOMICS (3)

Prerequisites: 01:220:102, 103.

The method of dialectical materialism; economic interpretation of history; emphasis on Marx's analysis of the laws of capitalist development (value and price, surplus value, accumulation, crisis, etc.); transition from "primitive" to "full" communism.

01:220:386. OPERATIONS RESEARCH I (3)

Prerequisites: 01:220:203, 322.

Application of quantitative methods to production management including decision theory, game theory, deterministic inventory theory, queuing, and linear programming.

01:220:388. GOVERNMENT PROTECTION OF CONSUMERS, EMPLOYEES, AND INVESTORS (3)

Prerequisites: 01:220:203, 322.

Market failure; consumer protection from hazardous products, false advertising, and deceptive sales practices; regulation of workplace safety; protection of investor and pension funds.

01:220:389. PUBLIC POLICIES TOWARD BUSINESS (3)

Prerequisites: 01:220:102, 322.

Analysis of major policies affecting competition. Topics include antitrust, traditional public-utility regulation, and newer regulatory alternatives.

01:220:393. FINANCIAL ECONOMICS (3)

Prerequisites: 01:220:203, 322.

Analysis of financial decision making; capital budgeting, capital structure, economic forecasting.

01:220:394. ECONOMICS OF CAPITAL MARKETS (3)

Prerequisites: 01:220:204, 322, 393.

Capital markets uncertainty; asset valuation; return on assets; determinants of relative yields. Theories of stock and bond market activity. Innovations in financial instruments.

01:220:395. LAW AND ECONOMICS (3)

Prerequisites: 01:220:102, 103.

Economic rationale and consequences of legal rules. Contracts, compensation, property rights, liability rules, crime, safety, monopoly, discrimination, health care, pollution, public interest law.

01:220:396. CORPORATIONS, BANKRUPTCIES, AND TAKEOVERS (3)

Prerequisites: 01:220:102, 103, or 200. Credit not given for both this course and 01:220:309.

Origin and nature of corporations, corporate bankruptcy including liquidation and reorganization, mergers and acquisitions, takeover disputes.

01:220:397. INTERNSHIP IN ECONOMICS (1)

Prerequisites: 01:220:102, 103, or 200. Each student is limited to one internship in economics. Students are responsible for finding internships. Majors only. Graded Pass/No Credit.

Supervised internship in economics-related position. Approval of the director of undergraduate studies and term paper required.

01:220:398,399. INDEPENDENT STUDY IN ECONOMICS (3,3)

Prerequisites: 01:220:102, 103, or 200. By permission of instructor and department. Maximum of two independent study courses in economics allowed.

Independent research supervised by a faculty member.

01:220:401. ADVANCED ECONOMETRICS (3)

Prerequisites: 01:220:203, 204; 322 or 326.

Applications of econometric methods in economic analysis. Demand and cost analysis, macro models, income distribution, labor participation.

01:220:405. ECONOMICS OF UNCERTAINTY (3)

Prerequisites: 01:220:203; 01:960:211 or 285; 01:640:136 or 152.

Measurement of risk, attitudes toward risk, decision making under uncertainty, Bayesian decision theory, applications to asset markets.

01:220:406. GAME THEORY AND ECONOMICS (3)

Prerequisites: 01:220:203; 01:960:211 or 285; 01:640:136 or 152. Credit not given for both this course and 436 or for both this course and 01:640:355.

Expected utility theory, zero and nonzero sum games, cooperative and noncooperative games, bargaining models, supergames, oligopoly, core market games, strategy-proof systems.

01:220:407. ECONOMICS OF INFORMATION (3)

Prerequisites: 01:220:203 and 01:960:211 or 285; 01:640:136 or 152.

Private and asymmetric information, moral hazard with optimal contracts, adverse selection with applications to signaling and screening, and incentive mechanisms such as auctions and tournaments.

01:220:409. MATHEMATICAL ECONOMICS (3)

Prerequisites: 01:220:203, 204, 322.

Mathematical approach to topics in theoretical economics: linear models, nonlinear programming, comparative statics, consumer behavior, theory of the firm, market structure, welfare theory.

01:220:410. OPERATIONS RESEARCH II (3)

Prerequisites: 01:220:203, 322; 01:640:136 or 152.

Development and use of advanced techniques of production management, including advanced topics in linear programming, PERT, nonlinear programming, dynamic programming, stochastic inventory theory, Markov analysis and simulation.

01:220:412. MONETARY THEORY AND POLICY (3)

Prerequisites: 01:220:204, 322.

Role of money and the monetary system in determining income, employment, and price level; techniques of monetary policy; relation of monetary and fiscal policy; international policies.

01:220:415. PORTFOLIO THEORY (3)

Prerequisite: 01:220:394.

Selection of a financial portfolio under conditions of uncertainty. Treatment of risk. Case histories of investment fund performance.

01:220:416. GOVERNMENT POLICIES FOR FULL EMPLOYMENT AND GROWTH (3)

Prerequisites: 01:220:204, 322.

Alternative government policies to ensure fulfillment of the national goals of full employment, price stability, satisfactory growth, and balanced international payments.

01:220:419. MANAGERIAL ECONOMICS (3)

Prerequisites: 01:220:203, 322.

Application of contemporary economic theory to managerial decisions and to public policy affecting business. Incremental analysis, applications of linear programming to cost minimization and product mix, demand forecasting, pricing problems, and issues of public policy.

01:220:421. ECONOMIC FORECASTING (3)

Prerequisites: 01:220:203, 204, 322.

Application of forecasting to private- and public-sector decisions. Emphasis on time-series models with microeconomic and macroeconomic applications and computer exercises.

01:220:430. TOPICS IN ADVANCED ECONOMIC THEORY (3)

Prerequisites: 01:220:203, 204, 322.

Economic dynamics; variational methods with applications; economics under uncertainty; imperfect information and market structure; social choice, design of incentive-compatible systems; general equilibrium.

01:220:433. ADVANCED TOPICS IN INTERNATIONAL ECONOMICS (3)

Prerequisites: 01:220:203, 204, 322.

Topics may include strategic trade, trade and economic growth, the political economy of trade policy, exchange rate determination, international coordination of macroeconomic policy, empirical issues in international economics, and foreign direct investment.

01:220:471. ECONOMICS OF REGULATION (3)

Prerequisites: 01:220:203, 322.

Applied topics in rate-of-return regulation. Emphasis on underlying financial, accounting, and pricing issues in selected utilities industries.

EDUCATION

01:220:490,491. ADVANCED INDEPENDENT STUDY AND RESEARCH (3,3)

Prerequisites: 01:220:203, 204, 322. Open to juniors and seniors by permission of instructor and department. Maximum of two independent study courses in economics allowed.

Specialized research supervised by a faculty member.

01:220:493. SENIOR HONORS SEMINAR I (3)

Prerequisites: 01:220:203, 204, 322. Corequisite: 02:220:401.

Selected topics in economics.

01:220:494. SENIOR HONORS SEMINAR II (3)

Prerequisite: 01:220:493.

Selected topics in economics.

01:220:495,496. SEMINAR IN ECONOMICS (3,3)

Open to juniors and seniors by permission of department.

Readings, analysis, and discussion of topics announced in advance each term.

EDUCATION 300

Graduate School of Education

Web Site: <http://www.gse.rutgers.edu>

Dean: Richard De Lisi

Associate Dean for Academic Affairs: Warren D. Crown

Director of Teacher Education: Amy Wollock

Professors:

W. Steven Barnett, B.A., *Kenyon College*; M.A., Ph.D., *Michigan*
Harold W. Beder, B.S., *Rochester*; Ed.M., *Colgate*; Ed.D., *Columbia*
Gregory Camilli, B.A., Ph.D., *Colorado*
Kenneth D. Carlson, B.S., M.S., Ed.D., *SUNY (Buffalo)*
Warren D. Crown, B.S., *Carnegie Mellon*; Ph.D., *Chicago*
Richard De Lisi, B.A., *SUNY (Buffalo)*; M.A., Ph.D., *Catholic*
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James M. Giarelli, B.A., *Northwestern*; M.Ed., Ph.D., *Florida*
Gerald Goldin, B.A., *Harvard*; M.A., Ph.D., *Princeton*
Ronald Terry Hyman, A.B., *Miami*; M.A.T., *Vanderbilt*; Ed.D., *Columbia*; J.D., *Rutgers*
Carolyn J. Maher, B.A., *Rutgers (Douglass College)*; Ed.M., Ed.D., *Rutgers*
Lorraine McCune, B.A., *Georgian Court*; Ed.M., Ed.D., *Rutgers*
Lesley Mandel Morrow, B.S., *Syracuse*; M.A., *Jersey City State College*; Ph.D., *Fordham*
Angela O'Donnell, B.Ed., *Carysfort*; M.S., M.Ed., Ph.D., *Texas Christian*
Douglas A. Penfield, B.S., M.S., *SUNY (Albany)*; Ph.D., *California (Berkeley)*
Jeffrey K. Smith, B.A., *Princeton*; Ph.D., *Chicago*
Dorothy S. Strickland, *New Jersey Professor of Reading*; B.S., *Newark State (Kean)*; M.A., Ph.D., *New York*
Daniel Tanner, B.S., M.S., *Michigan State*; Ph.D., *Ohio State*
Stanley John Vitello, B.A., M.Ed., *Temple*; Ed.S., *George Peabody College for Teachers (Vanderbilt)*; Ph.D., *Connecticut*; M.S.L., *Yale Law School*
Carol Weinstein, A.B., *Clark*; Ed.M., Ed.D., *Harvard*

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Keith H. Weber, B.S., M.A., M.S., Ph.D., *Carnegie Mellon*
R. Fox Vernon, B.A., *Stanford*; Ph.D., *Southern California*

Certification Programs

Certification programs exist in the following teaching areas (K–12): English, foreign language (French, German, Italian, Latin, Russian, Spanish), mathematics, music, physical science and biological science, social studies, and special education. A certification program in elementary education (K–8) also is available. Most of these programs are offered directly by the Graduate School of Education (GSE), but some are offered by other units of the university in cooperation with GSE.

The certification program in music education is a four-year program. The teacher preparation programs sponsored by GSE (elementary, English, foreign language, mathematics, physical science and biological science, social studies, and special education) are five-year programs. In these programs, the baccalaureate degree is awarded by one of the undergraduate liberal arts colleges, and the master's degree is awarded by GSE and a recommendation is made to the state of New Jersey for a certificate of eligibility with advanced standing as a teacher. Students are admitted to these programs during the second term of the junior year; the study of professional education begins during the junior or senior year and continues with an internship and advanced professional studies in the fifth year. Program graduates are eligible for provisional certification with advanced standing. For permanent certification, graduates must participate in the state induction-year program and successfully teach for one year.

Major Requirements

Individuals preparing for subject area certification must major in the field in which they are planning to teach. Elementary education students and special education students must major in a liberal arts field.

Program Requirements

Students seeking admission to one of the certification programs should meet with an education adviser to review program requirements during their first year or as soon as possible. Information about programs and advisement can

be obtained from the Office of Academic Services, Room 110, Graduate School of Education or at <http://www.gse.rutgers.edu>.

To be admitted, students must demonstrate proficiency in written and oral communication and have successfully completed a college-level mathematics course. Additionally, applicants must have successfully completed 05:300:200 Exploring Teaching as a Profession and its allied field experience. Enrollment in the education programs is competitive. Admission is based upon the cumulative grade-point average, Graduate Record Examination scores, and performance in the introductory education course and related fieldwork. Generally, education programs include course work in educational psychology, social and philosophical foundations of education, and methods of teaching as well as fieldwork and student teaching. All programs also have a required distribution of liberal arts courses. Course work is required in the following general education areas: arts, humanities, mathematics, science, technology, and psychology. Additionally, demonstration of competence in a foreign language at least equal to that of the second college term is required.

A list of the specific courses that may be taken to satisfy each of the general education areas can be obtained from the Office of Teacher Education, Room 132, Graduate School of Education.

Courses

05:300:200. EXPLORING TEACHING AS A PROFESSION (3)

Prerequisite for admission to teacher education program.

Exploration of teaching as a career. Examines teaching and learning from divergent perspectives and includes issues related to the profession and practice of teaching. Personal, public, and professional perceptions of teachers and teaching addressed. Includes a field experience.

05:300:306. EDUCATIONAL PSYCHOLOGY: PRINCIPLES OF CLASSROOM LEARNING (3)

Prerequisite: 01:830:101.

Surveys areas of psychology most relevant to education. How children think, learn, and remember; influence of motivation; principles of measurement.

05:300:341. MODERN HIGH SCHOOL MATHEMATICS (3)

Prerequisites: 01:198:111 or equivalent; 01:640:250, 251.

In-depth study and construction of some key ideas in the high school mathematics curriculum. Viewing of mathematics in terms of the ideas built up in the minds of students.

05:300:342. SUPERVISED UNDERGRADUATE TUTORING IN MATHEMATICS (3)

Prerequisites: 01:640:250, 251.

Develop teaching strategies, an interactive style, and an approach to high school mathematics content in a one-on-one tutorial or small group setting. Students work with other undergraduates in lower-level, E-credit mathematics courses.

05:300:350. EDUCATION AND COMPUTERS (3)

Establishes a foundation for using the computer in a variety of educational settings across all subject areas through programming, application programs, computer-based instruction, and social/philosophical issues of computers in education.

05:300:361. SCIENCE: KNOWLEDGE AND LITERACY (3)

Prerequisite: Science course at the 200 level or above.

Examines the emerging role of science education in society. Special attention given to influence of professional societies. Places current trends in science education in a historical perspective that reflects the development of science in the United States.

05:300:383. INTRODUCTION TO SPECIAL EDUCATION (3)

Pre- or corequisite: 01:830:396 or 397.

Overview of the diverse physical, psychological, and social disabilities of special education children.

05:300:401. INDIVIDUAL AND CULTURAL DIVERSITY IN THE CLASSROOM (3)

Prerequisites: 05:300:200; admission to the teacher education program.

Focuses on the range of student diversity in contemporary classrooms, including cultural, linguistic, and academic differences. Emphasizes strategies to enhance academic success, promote interaction, and facilitate the inclusion of diverse students in the regular school setting.

05:300:402. SPECIAL TOPICS IN EDUCATION (3)

Seminar on selected topic of current interest. Topics differ each term. Consult instructor for description of topic under study.

05:300:403. INDEPENDENT STUDY IN EDUCATION (BA)

Independent project in education to be carried out in consultation with appropriate faculty. Arrangements for a project supervisor must be made prior to registering for this course.

05:300:411. LABORATORY IN HUMAN DEVELOPMENT (3)

Prerequisite: 01:830:331.

Examines topics in social, cognitive, and affective development through the study of children and the settings in which they learn and develop. Findings related to current literature in child development and developmental psychology. Fieldwork required.

05:300:412. LEARNING AND TEACHING IN THE EARLY CHILDHOOD CLASSROOM (3)

Prerequisite: Admission to the teacher education program.

Addresses teaching strategies and curricula appropriate for the young child aged three to eight. Emphasizes the role of play in learning and development and instructional strategies to foster cognitive, social, and emotional development. Curriculum planning around integrated, thematically related experiences explored.

05:300:413. PRACTICUM IN EARLY CHILDHOOD/ELEMENTARY EDUCATION I (1.5)

Prerequisite: Admission to the teacher education program. Can be taken before or after 05:300:414. Coordinated with 01:300:412 and 494.

Fieldwork in a local elementary school to observe and participate as a teaching assistant; one full day per week for nine weeks in a prekindergarten, kindergarten, or first- through third-grade classroom.

05:300:414. PRACTICUM IN EARLY CHILDHOOD/ELEMENTARY EDUCATION II (1.5)

Prerequisite: Admission to the teacher education program. Can be taken before or after 05:300:413. Coordinated with 01:300:441, 461, 471, and 495.

Fieldwork in a local elementary school to observe and participate as a teaching assistant; one full day per week for nine weeks in a fourth- through eighth-grade classroom.

05:300:421. LANGUAGE AND LINGUISTICS I (3)

Prerequisite: Senior standing.

Examines a variety of grammatical and sociolinguistic descriptions of language and considers the critique they offer of traditional school grammar. Explores the educational and political implications of teaching traditional school grammar in the light of these critiques.

05:300:422. TEACHING LITERATURE: READERS, TEXTS, AND CONTEXTS (3)

Prerequisite: Senior standing.

Examines a variety of theories about what literary reading is and why it should be taught. Develop strategies for introducing, sequencing, and discussing literary texts as well as for integrating the study of literature into the other language arts. Field experience required.

ENGLISH

05:300:423. TEACHING WRITING: SOCIAL AND COGNITIVE DIMENSIONS (3)

Prerequisite: 05:300:421.

Examines a variety of perspectives on the nature of the writing process. Considers research and theory on how teachers should teach and respond to writing. Field experience required.

05:300:430. PRINCIPLES OF SECOND/FOREIGN LANGUAGE ACQUISITION (3)

Prerequisites: 05:300:200; admission to the teacher education program.

Introductory course that examines the research and theory on first and second language acquisition related to children, teens, and adults in the United States and abroad.

05:300:431. TEACHING WORLD LANGUAGE/ESL IN ELEMENTARY SCHOOLS (3)

Prerequisite: 05:300:200. Open only to students who have been formally admitted to a foreign language teaching program. May count as education credit but not toward the major in a foreign language.

Explores methods and materials used to foster world language and ESL development within an elementary school context. Fieldwork.

05:300:432. TEACHING WORLD LANGUAGE/ESL IN SECONDARY SCHOOLS (3)

Prerequisite: 05:300:200; admission to the teacher education program.

Explores methods and materials used to foster world language and ESL development within a secondary school context. Fieldwork.

05:300:433. LANGUAGE AND CULTURE (3)

Prerequisites: 05:300:200; admission to the teacher education program.

Relationship of linguistic, cognitive, attitudinal, and behavioral patterns within each culture and how they affect cross-cultural communication and language education.

05:300:434. LANGUAGE FOUNDATIONS I (3)

Prerequisites: 05:300:200; admission to the teacher education program.

Nature of language relevant to teachers involved with other languages and cultures. Topics include functional motivation of linguistic structure, linguistic sign, phonetics, phonemic and morphemic analysis, world semantics, and correctness.

05:300:441. TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL (3)

Prerequisite: 05:300:200. Open only to students who have been formally admitted to a teacher education program.

Concrete, manipulative approach to teaching mathematics concepts. Psychology of learning mathematics; the elementary curriculum; effective teaching techniques.

05:300:442. PROBLEM-SOLVING PROCESSES IN MATHEMATICS (3)

Prerequisite: Admission to the teacher education program.

Focuses on understanding one's own mathematical problem-solving processes and how such processes develop in mathematics learners of all ages.

05:300:443. METHODS OF TEACHING SECONDARY SCHOOL MATHEMATICS (3)

Prerequisite: Admission to the teacher education program.

Reviews the status of secondary mathematics teaching in the United States, the reform movement, and current thinking about issues of concern to practicing teachers. Encourages development of personal style and approach to teaching high school mathematics. Topics include instructional planning, assessment, individual differences, cultural and gender differences, and teaching styles.

05:300:444. PRACTICUM IN TEACHING SECONDARY SCHOOL MATHEMATICS (3)

Prerequisite: Admission to the teacher education program. Corequisite:

05:300:443. Students spend two complete mornings in the school each week.

Gives prospective secondary mathematics teachers an opportunity to observe experienced teachers, serve as an aide, work with individuals and small groups, and teach several class sessions in a high school setting.

05:300:461. SCIENCE IN THE ELEMENTARY SCHOOL (3)

Prerequisite: Completion of student's liberal arts college science requirement.

Presents science as an integrated body of knowledge using investigative and inquiry techniques. Thematic or problem-based approach to science teaching.

05:300:462. DEMONSTRATION AND TECHNOLOGY IN SCIENCE TEACHING (3)

Prerequisite: Admission to the teacher education program.

Creating science teaching support materials using resources available over the Internet. For use in creating laboratory, demonstration, and related activities that would complement classroom practice. Involvement in the broad Internet community of interest in science and science teaching.

05:300:471. TEACHING SOCIAL STUDIES IN ELEMENTARY SCHOOL (3)

Prerequisite: Admission to the teacher education program.

Examines strategies and materials for teaching social studies in the elementary school. Focuses on a cluster of teaching models to engage children in the active pursuit of knowledge, skills, and values.

05:300:472. MATERIALS AND METHODS IN SOCIAL STUDIES (3)

Prerequisite: 05:300:200. Open only to students who have been formally admitted to the social studies teaching program.

Study of instructional practices, curricular trends, and teaching materials used in social studies.

05:300:480. MATERIALS AND METHODS IN SPECIAL EDUCATION (3)

Prerequisites: 05:300:200, 383; 01:830:331. Open only to special education students.

Application of learning theory and principles of systematic instruction in the areas of motor learning, oral and written language, mathematics, and social skills. Fieldwork.

05:300:483. RESOURCES FOR INDIVIDUALS WITH DISABILITIES (3)

Prerequisite: Open only to students who have been admitted to the special education program.

Resources essential to the handicapped student and the family. Referral procedures and use of resources.

05:300:494. LITERACY DEVELOPMENT IN THE EARLY YEARS (3)

Prerequisites: 05:300:200; admission to the teacher education program.

Examines literacy development from birth to third grade. Varied strategies for literacy development are presented and analyzed using the emergent literacy and integrated language arts approach. Also addresses theories of early literacy development.

05:300:495. LITERACY DEVELOPMENT IN THE ELEMENTARY AND MIDDLE SCHOOL (3)

Prerequisites: 05:300:200; admission to the teacher education program.

Emphasizes integrated language arts approach to literacy learning in grades three through eight. Connections between reading, writing, and oral language addressed. Reviews strategies to integrate literacy learning with instruction in the content areas.

ENGINEERING

All four-year programs in engineering are offered by the School of Engineering. See that school's section for further information.

ENGLISH (English 350, English: Topics 351, English: Literary Theory 353, English: Film Studies 354, English: Composition and Writing 355, English: As a Second Language 356)

Department of English, Faculty of Arts and Sciences

Web Site: <http://english.rutgers.edu>

Chairperson: Richard E. Miller

Undergraduate Director: Carolyn Stephens Williams

Director of Writing Program: Kurt Spellmeyer

Executive Director of Plangere Writing Center: Richard E. Miller

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 Elin Diamond, B.A., Brandeis; M.A., Ph.D., California (Davis)
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 Jacqueline T. Miller, B.A., Rochester; M.A., Ph.D., Johns Hopkins
 Richard E. Miller, B.A., St. John's; M.A., Massachusetts (Boston); Ph.D., Pittsburgh
 Maria Josefina Saldaña-Portillo, B.A., Yale; Ph.D., Stanford
 Larry Scanlon, B.A., Brandeis; M.A., Ph.D., Johns Hopkins
 Jonah Siegel, B.A., Middlebury College; Ph.D., Columbia
 William Vesterman, B.A., Amherst College; Ph.D., Rutgers
 Carolyn Stephens Williams, B.A., Wellesley College; M.A., Ph.D., Virginia

Assistant Professors:

Matthew Buckley, A.B., Princeton; M.A., M.Phil., Ph.D., Columbia
 Brad Evans, B.A., Cincinnati; M.A., Ph.D., Chicago
 Thomas Fulton, B.A., Wisconsin; Ph.D., Yale
 Colin Jager, B.A., Calvin College; Ph.D., Michigan
 Sonali Perera, B.A., Berkeley; M.A., Ph.D., Columbia
 Shuang Shen, B.A., M.A., Beijing; M.A., Ph.D., CUNY
 Mary Sheridan-Rabideau, B.A., Notre Dame; M.A., Illinois (Chicago); Ph.D., Illinois (Urbana-Champaign)
 Edlie Wong, B.A., Ph.D., Berkeley

Distinguished Visiting Professor:

Derek Attridge, B.A., Natal; B.A., Ph.D., Clare College (Cambridge)

Assistant Directors of the Writing Program:

Barclay Barrios, B.A., Tulane; M.A., Rutgers
 Dorothy Ann Gioia, B.A., CUNY (Queens College); M.A., Rutgers
 Michael Goeller, B.A., M.A., Rutgers
 Veena Kumar, Doctorat, Sorbonne; Ph.D., Lucknow

Student Responsibility to Keep Informed

Each term the English department publishes a handbook for majors that provides a detailed description of all courses to be offered the following term and lists the courses that fulfill each requirement for the major. Before registering for the term, students should consult this handbook, available in the undergraduate office (Murray 104, College Avenue campus), and consult with faculty advisers, whose schedules are posted at the undergraduate office.

Major Requirements

The major consists of a minimum of 36 credits in English above the 100 level, including at least 18 credits at or above the 300 level. All majors must fulfill the following requirements:

1. Both terms of 01:350:219,220 Principles of Literary Study, which should be taken in the sophomore year.
2. Four 300- or 400-level courses from four out of the following five periods:
 - a. Medieval
 - b. Renaissance
 - c. Restoration / 18th century
 - d. Nineteenth century
 - e. Twentieth century and contemporary
3. One course in African-American literature.
4. One course in literary theory.
5. One 400-level seminar.

A course taken to fulfill a period requirement also may be used to fulfill the African-American literature or the seminar requirement, if it is so designated in the departmental handbook; similarly, if so designated, a seminar may be used to meet the literary theory or African-American requirement. However, no course may be used to fulfill more than two requirements.

Courses that may count as credits toward the major are listed under the subject codes 350 (English), 351 (English: Topics), 353 (English: Literary Theory), and 354 (Film Studies). All courses fulfilling period requirements and the African-American requirement are listed under 350; all courses listed under 353 fulfill the literary theory requirement.

A maximum of four English courses taken outside the Department of English at Rutgers–New Brunswick / Piscataway may be applied toward the major. Students who participate in study abroad may apply a total of six courses from outside toward the major. Transfer students who wish to apply transfer courses toward the major first must obtain approval from the undergraduate director. Enrolled English majors who wish to take an English courses outside Rutgers–New Brunswick / Piscataway must have prior approval from the undergraduate director. Students are urged to consult the English department for further information.

Grades of C or better must be earned in all courses used to fulfill the requirements of the major.

Options within the Major

The department offers three special options within the major. Each option requires at least 15 credits in the area of concentration. Please see departmental handbook (available in Murray Hall, Room 104) for details.

Creative Writing. For majors who wish to develop the craft and discipline of writing poetry, fiction, drama, and other forms through a coherent sequence of creative writing and literature courses.

Feminist Studies in English. For majors who wish to concentrate their work within the department's substantial offering of courses devoted to women writers, women and film, women and literature, and feminist criticism.

Film. For majors with a particular interest in the critical and historical analysis of film and its relation to literature.

Minor Requirements

The minor consists of 18 credits in English above the 100 level, including at least 12 credits at or above the 300 level. All minors are required to take at least one 300- or 400-level course designated as medieval, Renaissance, or Restoration/18th century (period a, b, or c, as indicated in the major requirements, above). A maximum of 6 credits total in creative writing and in film may be counted toward the minor. Grades of C or better must be earned in all courses used to fulfill the requirement of the minor.

Departmental Honors Program

The honors program in English consists of two phases: a track of honors course work, to be completed by the end of the junior year, and the writing of an honors thesis, to be carried out in the senior year. Transfer students entering as juniors, or other students who can show some special circumstance, may apply for admission directly to the thesis phase (see below).

Phase One: The Honors Track

Entering the Track. The honors track is open to all students who declare as English majors before the end of their sophomore year, *and* who have a grade-point average of 3.3 or above. Eligible students normally should apply to the undergraduate office in the second term of their first year or the first term of their sophomore year. They will be assigned an honors adviser with whom they will be expected to meet *at least once per term*.

Course of Study. Students must take the following courses and fulfill the following requirements by the end of the junior year:

1. At least one Faculty of Arts and Sciences (FAS) honors section of the 200-level surveys of British, American, or African-American literatures.
2. 01:350:219 and 220, as required by the major (strongly recommended for sophomore year).
3. At least one course in literary theory, as required by the major (recommended for junior year).
4. Two additional writing-intensive courses (as designated by the undergraduate office). These may include an additional FAS honors section of any English course, 01:355:201, a seminar, or 01:351:496 Advanced Research Methods.

Phase Two: The Thesis

Admission. All students who have completed the honors track by the end of the junior year *and* have maintained a B+ average in the major will be admitted automatically to write the thesis. Students who wish to gain admission by application should consult with the undergraduate office in the fall term of their junior year.

Requirements. Students will receive 3 credits each term for independent work on the thesis. The completed thesis will be evaluated by the adviser and a second reader. A grade of B+ or better will be required to earn the honors designation.

Honors in Creative Writing

Procedures and requirements for honors in creative writing are identical to those outlined above, with the following exceptions:

1. In addition to the other requirements, students must take the creative writing option.
2. Students may count *one* approved creative writing course toward the writing-intensive requirement.

Certificate Programs

Professional Writing Certificate

This program is designed to give students a firm grounding in oral, written, and electronic communication skills so that they are prepared to enter professions that require extensive writing skills. To earn a Professional Writing Certificate, students must complete successfully at least 16 credits in selected courses, including a 1-credit CASE unit or 3-credit internship.

This certificate is administered through the English department. For more information, contact the Assistant Director of Business and Technical Writing at 732/932-9273 or bizntech@rci.rutgers.edu.

Technical Writing Certificate

This program is designed to give students with a science or technical background a strong grounding in oral, written, and electronic communication skills. To earn a Technical Writing Certificate, students must complete successfully a major or minor in a scientific or technical field (such as biology, computer science, engineering, or mathematics) and at least 18 credits in selected courses, including a 3-credit internship.

This certificate is administered through the English department. For more information, contact the Assistant Director of Business and Technical Writing at 732/932-9273 or bizntech@rci.rutgers.edu.

Required courses (16–19 credits):

Two electives from among the following writing courses (6 credits):

- | | |
|------------|---|
| 01:355:202 | Technical Writing Essentials (3) |
| 01:355:203 | Business Writing Essentials (3) |
| 01:355:315 | Writing Grant Proposals (3) (<i>may not be counted twice</i>) |
| 01:355:342 | Science Writing (3) |
| 01:355:352 | Writing as a Naturalist (3) |
| 01:355:355 | Writing in the Professions (3) |
| 01:355:365 | Technical Editing (3) |
| 01:355:375 | Collaborative Writing Practices (3) |

One of the following research writing courses (3 credits):

- 01:355:302 Scientific and Technical Writing (3)
- 01:355:303 Writing for Business and the Professions (3)
- 01:355:312 Writing for Biology and Natural Science (3)
- 01:355:315 Writing Grant Proposals (3) (*may not be counted twice*)
- 01:355:322 Writing for Engineers (3)

One of the following workshop courses using computers in writing (3 credits):

- 01:355:402 Advanced Writing Workshop (3)
- 01:355:415 Information Design (3)
- 01:355:425 Web Authoring (3)

At least one course in computer science (3–4 credits):

- 01:198:110 Introduction to Computers and Their Application (3)
- 01:198:111 Introduction to Computer Science (4)
- 01:198:170 Computer Applications for Business (3)

At least one writing internship experience (1 or 3 credit for those seeking a Professional Writing Certificate; 3-credit internship for those seeking a Technical Writing Certificate):

- 01:355:399,400 CASE (1,1)
- 01:355:395,396 Internship (3,3)

Notice to All Students

Successful completion of 01:355:101 Expository Writing, by course work or exemption, is prerequisite to enrollment in all other English department courses except those at the 100 level. First-year students who have satisfied their basic writing requirement are encouraged to enroll in literature courses at the 200 level. Students can find literature courses at all levels listed under both 350 (English) and 351 (English: Topics). Composition and writing courses are listed under 355; courses in literary theory under 353; film courses under 354; creative writing courses under 351. English as a second language courses are listed under 356. Each term the department makes available in the undergraduate office a handbook describing in detail all courses to be offered the following term. This information also is available at the department's web site, <http://english.rutgers.edu>.

Courses (350)

01:350:219,220. PRINCIPLES OF LITERARY STUDY (3,3)

Required of all prospective English majors; should be taken in the sophomore year. Fundamental concepts and techniques of literary interpretation: methods of analyzing language, genre, structure, and cultural contexts in poetry (01:350:219) and prose (01:350:220). Readings selected from a wide range of major English and American authors, including women and members of minorities.

01:350:225. BRITISH LITERATURE FROM THE MIDDLE AGES TO 1800 (3)

Survey of poetry, prose, and drama from the Middle Ages through the 18th century.

01:350:226. BRITISH LITERATURE FROM 1800 TO THE PRESENT (3)

Survey of the poetry, prose, and drama from the romantic period to the present.

01:350:227. AMERICAN LITERATURE FROM THE COLONIAL PERIOD TO 1860 (3)

Survey of poetry, prose, and drama from the colonial period to the Civil War.

01:350:228. AMERICAN LITERATURE FROM 1860 TO THE PRESENT (3)

Survey of poetry, prose, and drama from the Civil War to the present.

01:350:250. BLACK LITERATURE FROM THE COLONIAL PERIOD TO 1930 (3)

Survey of poetry, prose, and drama from the 18th century through the Harlem renaissance.

01:350:251. BLACK LITERATURE FROM 1930 TO THE PRESENT (3)

Survey of poetry, prose, and drama from 1930 to the present.

01:350:301. LITERATURE OF MEDIEVAL COURTS (3)

Concepts of nobility, rule, courtship, and faith in works such as *Beowulf*, *Sir Gawain and the Green Knight*, *Pearl*, and Malory's *Morte d'Arthur*.

01:350:302. MEDIEVAL LITERATURE OF DISSENT (3)

Traditions of dissent in later medieval England. Texts include *Piers Plowman*, Lollard writings, macro-plays, the Wakefield cycle, and *The Book of Margery Kempe*.

01:350:303. RENAISSANCE LITERATURE: THE 16TH CENTURY (3)

Poetry, plays, and prose from the Henrician to the Elizabethan periods.

01:350:304. RENAISSANCE LITERATURE: THE 17TH CENTURY (3)

Poetry, plays, and prose from the Jacobean to Restoration periods.

01:350:305. RESTORATION AND EARLY 18TH-CENTURY LITERATURE (3)

Poetry, prose, and drama by Dryden, Rochester, Behn, Pope, Swift, and their contemporaries.

01:350:306. LATER 18TH-CENTURY LITERATURE (3)

Poetry, prose, and drama by Johnson, Goldsmith, Smollett, Lennox, Burney, and their contemporaries.

01:350:307. EARLY ROMANTIC LITERATURE (3)

Works of poetry and prose by Austen, Blake, Coleridge, Wordsworth, and their contemporaries.

01:350:308. LATER ROMANTIC LITERATURE (3)

Works of poetry and prose by Keats, P.B. Shelley, M. Shelley, Byron, Hemans, De Quincey, and their contemporaries.

01:350:309. VICTORIAN LITERATURE (3)

Poetry and prose from the 1830s to 1900, by Barrett Browning, Tennyson, Browning, Carlyle, Arnold, Christina Rossetti, the Brontës, Dickens, George Eliot, and Hardy.

01:350:310. LATE VICTORIAN AND EDWARDIAN LITERATURE (3)

Poetry and prose of the transition to modernism by such authors as Pater, Wilde, the Decadents, early Yeats, Hardy, Lawrence, and Woolf.

01:350:311. TWENTIETH-CENTURY LITERATURE I (3)

Writing from 1900 to 1945, including one or more of the following: American, British, other literatures in English.

01:350:312. TWENTIETH-CENTURY LITERATURE II (3)

Writing from 1945 to the end of the century, including one or more of the following: American, British, other literatures in English.

01:350:313. CONTEMPORARY LITERATURE (3)

Writing from the last 20 years, including one or more of the following: American, British, other literatures in English.

01:350:315. COLONIAL AMERICAN LITERATURE (3)

English writing of the New World, from exploration through colonization, on both sides of the Atlantic. Puritanism, the Enlightenment, empire, and the development of nationalism.

01:350:316. ANTEBELLUM AMERICAN LITERATURE (3)

American writing from Romanticism to the Civil War. Works by Irving, Cooper, Bryant, Poe, Emerson, Douglass, Hawthorne, Melville, Stowe, Thoreau, Whitman, Jacobs, and others.

01:350:317. LITERATURE OF AMERICAN REALISM AND NATURALISM (3)

American writing from the Civil War to modernism. Works by Dickinson, Alcott, Twain, James, Howells, Jewett, Chopin, Gilman, Crane, Wharton, Adams, Norris, Dreiser, London, Du Bois.

01:350:318. TWENTIETH-CENTURY AMERICAN LITERATURE I (3)

Writing by American authors from 1900 to 1945.

01:350:319. TWENTIETH-CENTURY AMERICAN LITERATURE II (3)

Writing by American authors from 1945 to the end of the century.

01:350:321. CHAUCER (3)

Selected works of Chaucer, with an emphasis on the *Canterbury Tales*.

01:350:322. SHAKESPEARE: THE ELIZABETHAN PLAYS (3)

Selected comedies, tragedies, and English history plays written between the beginning of Shakespeare's career and the death of Elizabeth I in 1603.

01:350:323. SHAKESPEARE: THE JACOBEAN PLAYS (3)

Selected comedies, tragedies, and tragicomedies written after the succession of James I in 1603.

01:350:324. MILTON (3)

Paradise Lost, *Paradise Regained*, *Samson Agonistes*, the shorter poems, and selected prose.

01:350:325. MILTON AND OTHER EARLY MODERN WRITERS (3)

Selected writings of Milton studied in relation to other 16th- or 17th-century writers, such as Spenser, Shakespeare, Donne, Marvell, Cavendish, or Dryden.

01:350:328. ATLANTIC CULTURES, 1500–1800 (3)

Credit not given for both this course and 01:506:328.

Encounters between peoples of Europe, Africa, and the Americas from the 16th century through the 18th. Team-taught, interdisciplinary course with an emphasis on the interpretation of texts and visual images from the era.

01:350:330. LITERATURE AND LITERACY IN 19TH-CENTURY ENGLISH CULTURE (3)

Texts that define to the English the idea of a popular national literature in the 19th century, including writings by social critics, philosophers, and novelists.

01:350:332. SIXTEENTH-CENTURY POETRY (3)

Forms, styles, and development of poetry from Skelton to Spenser.

01:350:333. SEVENTEENTH-CENTURY POETRY (3)

Forms, styles, and development of poetry from Jonson and Donne to Milton and Marvell.

01:350:334. RESTORATION AND 18TH-CENTURY POETRY (3)

Forms, styles, and development of poetry from Dryden, Swift, Pope, Collins, Gray, and others.

01:350:335. VICTORIAN POETRY (3)

Major poetry of Tennyson, Robert Browning, Arnold, the Pre-Raphaelites, Hopkins, early Yeats, and others.

01:350:337. TWENTIETH-CENTURY POETRY I (3)

Poetry from 1900 to 1945, including one or more of the following: American, British, other literatures in English.

01:350:338. TWENTIETH-CENTURY POETRY II (3)

Poetry from 1945 to the end of the century, including one or more of the following: American, British, other literatures in English.

01:350:339. CONTEMPORARY POETRY (3)

Poetry from the last 20 years, including one or more of the following: American, British, other literatures in English.

01:350:340. NINETEENTH-CENTURY AMERICAN POETRY (3)

Primary focus on Whitman and Dickinson, with additional readings in Freneau, Bryant, Longfellow, Emerson, Poe, Whittier, Holmes, Robinson, Crane, Dunbar.

01:350:343. DRAMA IN THE AGE OF SHAKESPEARE (3)

Early modern drama, with emphasis on Marlowe, Jonson, Beaumont, Fletcher, Webster, and others.

01:350:344. RESTORATION AND 18TH-CENTURY DRAMA (3)

Comedies, tragedies, and heroic plays by such authors as Dryden, Behn, Wycherly, Etheridge, Congreve, Gay, Goldsmith, and Sheridan.

01:350:346. TWENTIETH-CENTURY DRAMA I (3)

Drama from the 1880s to the 1920s in relation to modernism and contemporary social movements. Plays by Ibsen, Strindberg, Chekhov, Wilde, Jarry, Glaspell, and others.

01:350:347. TWENTIETH-CENTURY DRAMA II (3)

Expressionism through the Absurd (1920s through 1960s), in artistic and social contexts. Plays by Pirandello, O'Neill, Brecht, Genet, Beckett, Pinter, Williams, Hansberry, and others.

01:350:348. CONTEMPORARY DRAMA (3)

Contemporary drama and experimental performance (1960 through 1990s) in social contexts—postmodernism, race and gender struggle. Texts by Kennedy, Baraka, Churchill, Fornes, Finley, and others.

01:350:349. AMERICAN DRAMA (3)

American theatrical traditions from the 18th century to the present, with emphasis on such 20th-century playwrights as O'Neill, Hellman, Williams, Miller, Albee, and Baraka.

01:350:352. EIGHTEENTH-CENTURY NOVEL (3)

Beginnings of the novel, from Bunyan to Austen, including Manley, Defoe, Heywood, Fielding, Richardson, Lennox, Smollett, and Sterne.

01:350:354. NINETEENTH-CENTURY BRITISH FICTION (3)

Development of the novel into the major popular literary genre in England. Writers include Scott, Dickens, the Brontës, Thackeray, Gaskell, Eliot, Hardy, and others.

01:350:355. TWENTIETH-CENTURY FICTION I (3)

Fiction from 1900 to 1945, including one or more of the following: American, British, other literatures in English.

01:350:356. TWENTIETH-CENTURY FICTION II (3)

Fiction from 1945 to the end of the century, including one or more of the following: American, British, other literatures in English.

01:350:357. CONTEMPORARY FICTION (3)

Fiction from the last 20 years, including one or more of the following: American, British, other literatures in English.

01:350:359. NINETEENTH-CENTURY AMERICAN FICTION (3)

Novels, stories, and sketches by Irving, Cooper, Poe, Fern, Stowe, Hawthorne, Melville, Alcott, Twain, James, Wharton, Chesnut, and others.

01:350:361. BLACK NARRATIVE (3)

Historical and stylistic range of prose forms; slave narratives, folklore, biography and autobiography, short fiction; social, literary, and cultural criticism; Douglass, Du Bois, Toomer, Hurston, Walker.

01:350:362. BLACK POETRY (3)

History of black American poetry, including the influence of oral traditions; poems by such writers as Wheatley, Dunbar, Hughes, and Brooks.

01:350:363. BLACK DRAMA (3)

Work of modern black American playwrights, including Hansberry, Baraka, Baldwin, Bullins, Gordone, Fuller, and Shange.

01:350:364. BLACK NOVEL (3)

Thematic and structural development of the black novel as a voice for social and political change, including works by Wright, Ellison, Baldwin, Marshall, Walker, and Morrison.

01:350:365. BLACK AUTOBIOGRAPHY (3)

Examination of self-representation by major black autobiographers, including Frederick Douglass, Harriet Jacobs, Solomon Northup, Booker T. Washington, Maya Angelou, and Malcolm X.

01:350:367. NINETEENTH-CENTURY BLACK LITERATURE (3)

Prominent African-American writers of fiction, poetry, autobiography and essays of the 19th century, including Frederick Douglass, Harriet Wilson, Pauline Hopkins, Charles Chesnutt, W.E.B. Du Bois.

01:350:368. HARLEM RENAISSANCE (3)

Black literature during the 1920s and 1930s in the context of African-American social and cultural history; essays, poems, and novels by such authors as Cullen, Hughes, Hurston, McKay, and Toomer.

01:350:369. BLACK WRITERS AND THE 1960s (3)

Innovations in black literature of the 1960s in light of the tumultuous social, cultural, and political movements of the decade.

01:350:370. BLACK MUSIC AND LITERATURE (3)

Thematic and structural influences of black music on American poetry, fiction, and drama; writers may include Sterling Brown, Hughes, Baraka, Cortez, Bambara, Kerouac, Shepard, and August Wilson.

01:350:371. BLACK WOMEN WRITERS (3)

Fiction and poetry by African-American women such as Brooks, Hurston, Marshall, Morrison, and Alice Walker; discussion of issues of literary influence and comparable traditions.

01:350:372. LITERATURE OF THE BLACK WORLD (3)

Comparative study of writing in English by African-American, Caribbean, and African authors, including Derek Walcott, V.S. Naipaul, Paule Marshall, and Chinua Achebe.

01:350:376. ISSUES AND PROBLEMS IN BLACK LITERATURE (3)

Studies in particular themes, questions, forms, and historical issues in black literature and culture. Sections designed by individual instructors; students should consult departmental announcement.

01:350:378. TWENTIETH-CENTURY LITERATURE IN A GLOBAL CONTEXT (3)

Credit not given for both this course and 01:195:324.

Twentieth-century writing in English other than British and American.

01:350:381. MEDIEVAL AND EARLY MODERN WOMEN WRITERS (3)

Selections from significant women writers of the medieval and early modern period, including Julian of Norwich, Margery Kempe, Aemelia Lanyer, Elizabeth Cary, Lady Mary Wroth, Katherine Philips, and others.

01:350:382. RESTORATION AND 18TH-CENTURY WOMEN WRITERS (3)

Writings by women from Philips, Behn, and Finch to Burney and Austen.

01:350:383. NINETEENTH-CENTURY WOMEN WRITERS (3)

Appearance of women writers as major public voices in British literature. Writers include Wollstonecraft, Austen, Mary Shelley, the Brontës, Gaskell, George Eliot, Christina Rossetti.

01:350:384. TWENTIETH-CENTURY WOMEN WRITERS (3)

Twentieth-century writing by women, including one or more of the following: American, British, other literatures in English.

01:350:385. AMERICAN WOMEN WRITERS TO 1900 (3)

Writing by American women before the turn of the 20th century, including Bradstreet, Stowe, Alcott, Dickinson, Freeman, Gilman, and Chopin.

01:350:386. TWENTIETH-CENTURY AMERICAN WOMEN WRITERS (3)

Writing by American women of the 20th century, including Wharton, Cather, Stein, H.D., Hurston, O'Connor, Bishop, and Morrison.

01:350:388. CULTURES OF THE MIDDLE AGES (3)

Credit not given for both this course and 01:195:388 or 01:667:388.

Detailed introduction to a particular aspect of the rich cultural diversity of the European Middle Ages. Topics vary.

01:350:389. ISSUES AND PROBLEMS IN MEDIEVAL LITERATURE AND CULTURE (3)

Studies in particular themes, questions, forms, and historical issues in medieval literature and culture. Sections designed by individual instructors; students should consult departmental announcement.

01:350:390. ISSUES AND PROBLEMS IN RENAISSANCE LITERATURE AND CULTURE (3)

Studies in particular themes, questions, forms, and historical issues in Renaissance literature and culture. Sections designed by individual instructors; students should consult departmental announcement.

01:350:391. ISSUES AND PROBLEMS IN RESTORATION AND 18TH-CENTURY LITERATURE AND CULTURE (3)

Studies in particular themes, questions, forms, and historical issues in Restoration and 18th-century literature and culture. Sections designed by individual instructors; students should consult departmental announcement.

01:350:392. ISSUES AND PROBLEMS IN 19TH-CENTURY LITERATURE AND CULTURE (3)

Studies in particular themes, questions, forms, and historical issues in 19th-century literature and culture. Sections designed by individual instructors; students should consult departmental announcement.

01:350:393. ISSUES AND PROBLEMS IN 20TH-CENTURY LITERATURE AND CULTURE (3)

Studies in particular themes, questions, forms, and historical issues in 20th-century literature and culture. Sections designed by individual instructors; students should consult departmental announcement.

01:350:411. OLD ENGLISH LANGUAGE AND LITERATURE (3)

Extensive study of the English language and an introduction to its literature.

01:350:412. OLD ENGLISH LANGUAGE AND LITERATURE (3)

Prerequisite: 01:350:411.

Beowulf and other masterpieces studied in their original language.

01:350:415. MEDIEVAL ROMANCE (3)

Medieval romances and their origins in the British Isles and on the continent, with emphasis on English versions of Arthurian material, especially *Sir Gawain and the Green Knight* and Malory's *Morte d'Arthur*.

01:350:420. SEMINAR: CHAUCER (3)

Intensive study of *The Canterbury Tales*, *Troilus and Criseyde*, and other selected works.

01:350:422. SEMINAR: TOPICS IN MEDIEVAL LITERATURE AND CULTURE (3)

Intensive study, in a discussion-oriented format, of a specifically defined area of medieval literature and culture. Topics vary according to individual instructors; consult departmental information.

01:350:424. SEMINAR: SPENSER (3)

The Faerie Queene, *The Shepherd's Calendar*, *Amoretti*, *Epithalamion*, and selected minor works.

01:350:426,427. SEMINAR: SHAKESPEARE (3,3)

Special studies in selected plays and poems. Consult department announcement.

01:350:428. SEMINAR: MILTON (3)

Special studies in Milton's poetry and prose.

01:350:434. SEMINAR: TOPICS IN RENAISSANCE LITERATURE AND CULTURE (3)

Intensive study, in a discussion-oriented format, of a specifically defined area of Renaissance literature and culture. Topics vary according to individual instructors; consult departmental information.

01:350:435. SEMINAR: TOPICS IN RESTORATION AND 18TH-CENTURY LITERATURE AND CULTURE (3)

Intensive study, in a discussion-oriented format, of a specifically defined area of 18th-century literature and culture. Topics vary according to individual instructors; consult departmental information.

01:350:436. SEMINAR: TOPICS IN 19TH-CENTURY LITERATURE AND CULTURE (3)

Intensive study, in a discussion-oriented format, of a specifically defined area of 19th-century literature and culture. Topics vary according to individual instructors; consult departmental information.

01:350:437. SEMINAR: TOPICS IN 20TH-CENTURY LITERATURE AND CULTURE (3)

Intensive study, in a discussion-oriented format, of a specifically defined area of 20th-century literature and culture. Topics vary according to individual instructors; consult departmental information.

01:350:441. SEMINAR: TOPICS IN AMERICAN LITERATURE AND CULTURE TO 1800 (3)

Intensive study, in a discussion-oriented format, of a specifically defined area of American literature and culture to 1800. Topics vary according to individual instructors; consult departmental information.

01:350:442. SEMINAR: TOPICS IN 19TH-CENTURY AMERICAN LITERATURE AND CULTURE (3)

Intensive study, in a discussion-oriented format, of a specifically defined area of 19th-century American literature and culture. Topics vary according to individual instructors; consult departmental information.

01:350:445,446. SEMINAR: TOPICS IN BLACK LITERATURE AND CULTURE (3,3)

Intensive study, in a discussion-oriented format, of a specifically defined area of black literature and culture. Topics vary according to individual instructors; consult departmental information.

Courses (351)**01:351:201. INTRODUCTION TO LITERATURE (3)**

Development of skills in close reading and interpretive writing; texts in various genres. Designed primarily for nonmajors.

01:351:211,212. CREATIVE WRITING (3,3)

Practice in creative writing in various forms (fiction, poetry, drama, essay); critical analysis of students' manuscripts in class and/or individual conferences.

01:351:216. INTRODUCTION TO WORLD LITERATURES IN ENGLISH (3)

Credit not given for both this course and 01:195:216.

Survey of English language literatures, including Asian, African, and Caribbean, in a global context.

01:351:240. INTRODUCTION TO DRAMATIC LITERATURE (3)

Major plays from several periods, chiefly British and American, with some attention to form, theory, and the development of the genre.

01:351:241. INTRODUCTION TO POETRY (3)

Major poems from several periods, chiefly British and American, with some attention to form, theory, and the development of the genre.

01:351:242. INTRODUCTION TO THE NOVEL (3)

Major novels from several periods, chiefly British and American, with some attention to form, theory, and the development of the genre.

01:351:244. INTRODUCTION TO MYTH (3)

Myths of various cultures; their structures and functions in social and especially literary contexts.

01:351:245. INTRODUCTION TO FOLKLORE (3)

Credit not given for both this course and 01:195:245.

Major genres of folklore, including folktale, folk song, and legend, with attention to the methods of collecting and analyzing these materials.

01:351:265. INTRODUCTION TO THE STUDY OF WOMEN WRITERS (3)

Range of literature in English by women writers, analyzed in relation to the impact of authorial gender.

01:351:266. ISSUES AND METHODS IN FEMINIST LITERARY STUDIES (3)

Contemporary debates about gender, class, race, and sexuality through close reading of literary and cultural texts, including poems, novels, film, journalism, and visual images.

01:351:306. CREATIVE WRITING: FORM AND TECHNIQUE IN POETRY (3)

Prerequisite: One 200-level course in creative writing or permission of instructor.

Pre- or corequisite: A literature course in poetry.

01:351:307. CREATIVE WRITING: FORM AND TECHNIQUE IN FICTION (3)

Prerequisite: One 200-level course in creative writing or permission of instructor.

Pre- or corequisite: A literature course in fiction.

01:351:308. CREATIVE WRITING: FORM AND TECHNIQUE IN DRAMA (3)

Prerequisite: One 200-level course in creative writing or permission of instructor.

Pre- or corequisite: A literature course in drama.

01:351:310,311. HISTORY OF THE ENGLISH LANGUAGE (3,3)

Growth and structure of the English language from its origins to the present, with some attention to methods of linguistic description. *First term:* historical linguistics, Old and Middle English. *Second term:* English from Caxton to the present, with emphasis on American contributions to the study of the language; social, political, regional, and urban language issues.

01:351:315. BACKGROUNDS OF HOMOEROTIC LITERATURE (3)

Credit not given for both this course and 01:195:326.

Survey of gay and lesbian literature from the Greeks to the 1920s, stressing formal and generic analysis and connections between cultures.

01:351:317. CLASSICAL BACKGROUNDS OF LITERATURE IN ENGLISH (3)

Credit not given for both this course and 01:195:346.

Influence on literature in English of classical Greek and Roman epic, tragedy, comedy, and other literary forms.

01:351:319. BIBLICAL BACKGROUNDS OF LITERATURE IN ENGLISH (3)

Credit not given for both this course and 01:195:349.

Influence of the King James and other versions of the Bible on literature in English.

01:351:320. THE BIBLE AS LITERATURE (3)

The Bible, its literary variety, and the evolution of its text.

01:351:321. STUDIES IN LITERATURE AND SPIRITUALITY (3)

Religious themes in literature, with attention to matters of rhetoric, style, and structure.

01:351:322. LITERARY APPROACHES TO SACRED TEXTS (3)

Credit not given for both this course and 01:195:318.

Literary analysis of the formation and structure of the major texts of several world religions. Attention to style, genre, and cross-cultural interpretation.

01:351:325. THE COMIC (3)

Theory and practice of comedy organized around the topics of satire, farce, nonsense, parody, jokes, and the humor of daily life.

01:351:326. TRAGEDY (3)

Credit not given for both this course and 01:195:391.

Literature and theory of tragedy from the Greeks through Shakespeare to the 20th century; chiefly plays, supplemented by some poetry and fiction.

01:351:330. THE GOTHIC (3)

Genre of the Gothic from its beginnings in the 18th century to the present.

01:351:331. TRAVEL LITERATURE (3)

Readings of works, mainly in English, concerning geographical exploration and speculation; relation to literary and nonliterary genres; attention to imperial dimensions.

01:351:332. MODERN LITERARY FANTASY (3)

Literary conventions and distinctions between the surreal and the unreal, nonsense and the sublime in different forms of modern literary fantasy written in English.

01:351:334. THE SHORT STORY (3)

Wide range of short stories, with a particular focus on formal aspects of the genre.

01:351:335. SCIENCE FICTION (3)

Development of science fiction; works by such authors as Wells, Stapledon, Capek, Clarke, Bradbury, Asimov, Le Guin, and Lessing.

01:351:336. DETECTIVE FICTION (3)

Classic writers of the detective story and novel: Poe, Conan Doyle, Christie, Hammett, and others.

01:351:337. POPULAR CULTURE (3)

Exploration of how popular forms like TV, movies, music video, rap, rock, comics, magazines, and advertising shape meaning and value in contemporary America.

01:351:338. FOLK LITERATURE (3)

Folktale, ballad, and other forms of oral-traditional literature; theories of origin and classification; adaptations of folk materials in literary texts.

01:351:339. SATIRE (3)

Satire's variety of postures and games, across an array of such forms as novel, epigram, film, and cartoon, ranging from the Renaissance to the present.

01:351:341. AUTOBIOGRAPHY (3)

Credit not given for both this course and 01:195:360.

Historical and formal development of autobiography in English, with special attention to theories of identity and narrative.

01:351:342. AMERICAN AUTOBIOGRAPHY (3)

Changing representations of self in narrative form. Readings range from conversion, captivity, and slave narratives, to modern autobiographies in the tradition of Franklin.

01:351:345. IRISH WRITING IN ENGLISH (3)

Works of Irish writers in English from 1800 to the present.

01:351:347. LITERATURE AND PSYCHOLOGY (3)

Exploration of interrelationships of literature and psychoanalysis (from Freud to feminists and contemporary theorists); topics include subjectivity, trauma, gender, intersubjectivity, and identity.

01:351:348. LITERATURE AND SEXUALITY (3)

Themes and assumptions of sexual literature and its basis in sexual fantasy, including gender issues. Reading in major works of sexual literature.

01:351:349. LITERARY AND SCIENTIFIC WRITINGS (3)

Readings in English that explore the impact of science upon literary writing and the literary and discursive dimensions of selected scientific texts.

01:351:350. LITERATURE AND MYTH (3)

Narrative transformations of myth, considering such mythic structures as cosmogony, rebirth, shamanism, and metamorphosis from various theoretical and cultural perspectives.

01:351:355. DRAMA BY WOMEN (3)

Selected plays in English by women writers, with emphasis on the study of forms, conventions, and cultural contexts. Topics vary; consult departmental announcement.

01:351:356. FICTION BY WOMEN (3)

Selected works of fiction in English by women writers, with emphasis on the study of forms, conventions, and cultural contexts. Topics vary; consult departmental announcement.

01:351:357. POETRY BY WOMEN (3)

Selected poetry in English by women writers, with emphasis on the study of forms, conventions, and cultural contexts. Topics vary; consult departmental announcement.

01:351:358. AUTOBIOGRAPHY BY WOMEN (3)

Selected autobiographical writings by women in English. Topics vary; consult departmental announcement.

01:351:359. GENDER AND GENRE (3)

Explores ways by which female and male writers have made use of gendered assumptions about voice, tropes of address, inspiration, and form.

01:351:361. ISSUES AND PROBLEMS IN FEMINIST LITERARY STUDIES (3)
Themes, questions, forms, and historical issues in feminist literary studies. Sections designed by individual instructors; consult departmental announcement.

01:351:365. READINGS IN COLONIAL AND POSTCOLONIAL LITERATURE (3)
Study of literature and criticism that explore facets of Western imperial expansion.

01:351:366. LITERATURES OF MIGRATION, IMMIGRATION, AND DIASPORA (3)
Credit not given for both this course and 01:195:336.
Writings that feature representations of place, community, and identity in relation to national and international movement and displacement.

01:351:369. MINORITY LITERATURES IN ENGLISH (3)
Credit not given for both this course and 01:195:335.
Cross-national and comparative studies of literature, in English, of one or more ethnic, racial, or cultural groups. Topics vary; consult departmental announcement.

01:351:371. LITERATURES IN ENGLISH OTHER THAN BRITISH AND NORTH AMERICAN (3)
Study of selected literary works written in English in countries other than the United Kingdom, Ireland, United States, and Canada. Topics vary; consult departmental announcement.

01:351:375. ETHNIC LITERATURE IN THE UNITED STATES (3)
Selected literary works by Asian-American, black, Chicano / Chicana, and Native American writers. Topics vary; consult departmental information.

01:351:376. NATIVE AMERICAN LITERATURES IN ENGLISH (3)
Fiction, poetry, and autobiography by such writers as Apes, Momaday, Welch, Silko, and Erdrich. Attention to issues of Native American representation.

01:351:377. ASIAN-AMERICAN LITERATURES IN ENGLISH (3)
Theme or genre-based study of selected Asian-American writing in English. Topics chosen by individual instructors; consult departmental announcement.

01:351:378. CHICANO/CHICANA LITERATURE (3)
Theme or genre-based study of selected Chicano / Chicana literature; attention to comparative contexts (Puerto Rican, Cuban, Dominican).

01:351:385. ISSUES AND PROBLEMS IN GENRE (3)
Formal and cultural issues within the development of a particular genre, or in the relation between genres, in literature in English.

01:351:393,394. INDEPENDENT STUDY (3,3)
Prerequisite: Permission of department.
Individual work on a topic designed by the student in conference with an instructor who directs the project.

01:351:397. JUNIOR HONORS SEMINAR (3)
Open only to junior English majors in the departmental honors program.
Focus on particular text, theme, or approach in order to develop reading and writing skills using critical and theoretical materials.

01:351:405,406. ADVANCED CREATIVE WRITING WORKSHOP (3,3)
Prerequisites: One 300-level course in creative writing and permission of instructor.
Advanced work in creative writing; criticism of manuscripts in individual conferences and / or class.

01:351:435,436. SEMINAR: FEMINIST LITERARY STUDIES (3,3)
Intensive study, in a discussion-oriented format, of a specifically defined area of feminist literary studies. Topics vary; consult departmental announcement.

01:351:440. SEMINAR: TOPICS IN GENRE (3)
Credit not given for both this course and 01:195:440.
Intensive study, in a discussion-oriented format, of a particular genre (e.g., pastoral, epic, comedy, lyric) or relationship among genres. Topics vary; consult departmental information.

01:351:452,453. SEMINAR: SPECIAL TOPICS IN AMERICAN LITERATURE (3,3)
Special studies in particular ideas, themes, forms, and historical units in American literature. Sections designed by individual instructors; consult departmental announcement.

01:351:460. SEMINAR: TOPICS IN COLONIAL AND POSTCOLONIAL LITERATURE (3)
Intensive study, in a discussion-oriented format, of a specifically defined area of colonial and postcolonial literature. Topics vary; consult departmental information.

01:351:491,492. SEMINAR: SPECIAL TOPICS IN LITERATURE (3,3)
Special studies in particular ideas, themes, forms, and historical units in literature. Sections designed by individual instructors; consult departmental announcement.

01:351:493,494. INDEPENDENT STUDY (3,3)
Prerequisite: Permission of department.
Individual work on a topic designed by the student in conference with an instructor who directs the project.

01:351:495. INDEPENDENT STUDY (BA)
Individual work on a topic designed by the student with an instructor who directs the project.

01:351:496. ADVANCED RESEARCH METHODS (3)
Open only to junior English majors in the departmental honors program.
Workshop in advanced library skills and the use of secondary scholarship.

01:351:497. SENIOR HONORS SEMINAR (3)
Open only to senior English majors in the departmental honors program.
Workshop focusing on methodological and theoretical aspects of literary study, with particular emphasis on the senior thesis.

01:351:498,499. SENIOR HONORS TUTORIAL (3,3)
Meets by arrangement through individual conferences.
Independent research on a topic, selected by the student and approved by the departmental honors committee, executed under the guidance of the student's tutor.

Courses (353)

01:353:230. READINGS IN LITERARY THEORY (3)
Literary theory through the close reading of texts with common themes; representation of diverse historical periods and theoretical frameworks.

01:353:301. HISTORY OF LITERARY THEORY I (3)
Literary and rhetorical theory from antiquity to the Enlightenment.

01:353:302. HISTORY OF LITERARY THEORY II (3)
Selected trends and texts of literary theory from Romanticism to the present.

01:353:310. LANGUAGE AND MEANING (3)
Concept of "meaning" in linguistic and especially "literary" theory.

01:353:315. DECONSTRUCTION AND POSTSTRUCTURALIST THEORY (3)
"Poststructuralism" and its origins in France in the late 1960s; attention to the theoretical writings of Derrida, Barthes, Kristeva, and de Man.

01:353:320. MARXIST LITERARY THEORY (3)

Marxist analysis of literature, culture, and society. Attention to dialectical philosophy, the problem of base and superstructure, theories of ideology and fetishism.

01:353:326. COLONIAL AND POSTCOLONIAL THEORY (3)

Theories of colonial and postcolonial discourse; attention to issues of imperialism, primitivism, creolization, and globalization in fiction, film, and travel narratives.

01:353:330. CULTURAL THEORY IN LITERARY STUDIES (3)

Approaches to defining what culture is and how to theorize culture in relation to the production and consumption of literary and nonliterary texts.

01:353:340. FEMINIST THEORY IN LITERARY STUDY (3)

"Woman," "gender," and related concepts as discursive categories deployed in theoretical, literary, philosophical, and popular texts. Attention to historical issues and current debates.

01:353:346. THEORIES OF GENDER AND SEXUALITY (3)

History and critique of gender and sexuality as discursive categories. May include nonliterary as well as literary texts and involve various theoretical perspectives.

01:353:350. PSYCHOANALYTIC LITERARY THEORY (3)

Impact of psychoanalysis upon theories of literature, language, and interpretation; Freud and beyond; attention to theories of subjectivity, sexuality, textuality, culture.

01:353:360. LITERATURE, THEOLOGY, AND THEORY (3)

Relationships between theological and literary ways of reading texts, including both sacred and secular examples.

01:353:370. THEORIES OF GENRE (3)

Introduction to the ways in which criticism has theorized literature according to genre, form, and kind.

01:353:389,390. ISSUES AND PROBLEMS IN LITERARY THEORY (3,3)

Close investigation of a specifically defined area of literary theory. Topics vary according to individual instructors; consult departmental information.

01:353:491,492. SEMINAR: TOPICS IN LITERARY THEORY (3,3)

Intensive study, in a discussion-oriented format, of a specifically defined area of literary theory. Topics vary according to individual instructors; consult departmental information.

01:353:496,497. SEMINAR: TOPICS IN FEMINIST THEORY (3,3)

Intensive study, in a discussion-oriented format, of a specifically defined area of feminist theory. Topics vary according to individual instructors; consult departmental information.

Courses (354)**01:354:201. INTRODUCTION TO FILM (3)**

Film study, with emphasis on basic concepts of film analysis (narrative, editing, mise-en-scène, sound) and the historical development of cinema as an institution.

01:354:202. INTRODUCTION TO FILM (3)

Film study, with emphasis on commercial cinema as an institution (genres, directors, stars) and on nonnarrative types of film (documentary, experimental).

01:354:210. CLOSE READINGS OF CINEMA (3)

Formal analyses of six or seven individual films; emphasis on visual track, sound track, and scenario-narrative construction.

01:354:308. SCREENWRITING (3)

Nature and theory of the screenplay; practice in writing for the screen, from short scenes to longer projects.

01:354:312. CINEMA AND THE ARTS (3)

Relationship between film and aesthetic movements in literature and the arts, such as expressionism, cubism, futurism, constructivism, and surrealism.

01:354:315. AMERICAN CINEMA I (3)

American film from the silent period to 1940; emphasis on the development of American cinema both as a social institution and a symbolic form.

01:354:316. AMERICAN CINEMA II (3)

American film from 1940 to the present; emphasis on the height of the Hollywood studio and its decline in the late 1950s and 1960s.

01:354:320. WORLD CINEMA I (3)

Credit not given for both this course and 01:195:320.

Developments in French, Italian, British, Russian, and other national cinemas from 1896 to World War II; also examines cross-influences between foreign and American cinema.

01:354:321. WORLD CINEMA II (3)

Credit not given for both this course and 01:195:321.

Developments in French, Italian, British, Russian, Japanese, and other national cinemas after World War II; also examines cross-influences between foreign and American cinema.

01:354:330,331. CRITICAL METHODOLOGY IN FILM (3,3)

Critical methodology, reviewing genre theory, theories of authorship, Marxist, feminist, cultural-materialist, and psychoanalytic criticism as applied to film.

01:354:350,351. MAJOR FILMMAKERS (3,3)

Questions of meaning in film through the work of such major directors as Ford, Renoir, Hawks, Ophuls, Bergman, Mizoguchi, and Hitchcock.

01:354:370. FILM GENRES (3)

Analysis of film genres, such as the western, comedy, horror film, film noir, the musical; theory of genre; history of genre criticism. May cover more than one genre.

01:354:373. THE DOCUMENTARY (3)

History, theory, and practice of documentary film, including ethnographic film, propaganda, newsreel, direct cinema, video verité, social activist film, postmodern documentary, and anti-documentary.

01:354:375. FILM AND SOCIETY (3)

Analysis of films in their sociopolitical contexts, including issues of race, class, and gender; relation between film as artform and the politics of culture.

01:354:385. THEORIES OF WOMEN AND FILM (3)

Basic concepts in feminist film theory; the female voice in cinema; representations of women in classical Hollywood film; films made by women.

01:354:391,392. SPECIAL TOPICS IN FILM STUDIES (3,3)

Intensive study of a particular national cinema, period in film history, studio, or genre. Sections designed by individual instructors; consult departmental announcement.

01:354:420. SEMINAR: FILM THEORY (3)

Major developments in film theory from the silent era to the present; writings on film by Eisenstein, Kracauer, Bazin, Metz, Barthes, and others; practice in using different methods to analyze films.

Courses (355)

01:355:096. WRITING CENTER (E1.5)

At the tutorial centers located on the College Avenue, Livingston, and Douglass campuses, registered students receive concentrated assistance in specific writing skills. Open to all undergraduates.

01:355:098. COMPOSITION SKILLS (E4.5)

Remedial-level work in writing and reading skills.

01:355:099. READING FOR ENGLISH 100 (E1.5)

Corequisite 01:355:100. By permission only.

Course in reading skills, to be taken in conjunction with 01:355:100, with special emphasis on accuracy, vocabulary, and the recognition of basic expository forms.

01:355:100. BASIC COMPOSITION (3)

Basic writing course for students who need preparation for 01:355:101, leading to increased fluency, competence in standard English, and skills in organization.

01:355:101. EXPOSITORY WRITING I (3)

Development of competence in reading, thinking, and writing through the analysis and composition of expository prose.

01:355:103. EXPOSITION AND ARGUMENT (3)

By departmental placement only. Not open to students who have taken 01:355:101. Credit not given for both this course and 01:355:101.

Intensive expository writing course for first-year students who demonstrate advanced reading and writing skills.

01:355:201. RESEARCH IN THE DISCIPLINES (3)

May not be used for major or minor credit.

Further development of competence in reading, thinking, and writing, with emphasis on the intellectual and practical skills required for the research paper.

01:355:202. TECHNICAL WRITING ESSENTIALS (3)

May not be used for major or minor credit.

Training in the skills, purposes, and styles of technical writing. Practice with abstracts, definitions, description, and other common forms.

01:355:203. BUSINESS WRITING ESSENTIALS (3)

May not be used for major or minor credit.

Training in the skills, purposes, and styles of business writing. Practice with letters, memos, short reports, electronic messages, and oral presentations.

01:355:301. COLLEGE WRITING AND RESEARCH (3)

Further development of competence in reading, thinking, and writing through the analysis and composition of expository prose.

01:355:302. SCIENTIFIC AND TECHNICAL WRITING (3)

May not be used for major or minor credit.

Practice in research and writing in scientific and technical settings. Focus on an independent project related to the student's field of specialization.

01:355:303. WRITING FOR BUSINESS AND THE PROFESSIONS (3)

May not be used for major or minor credit.

Practice in management-level research and writing in business and professional settings. Focus on an independent project related to the student's field of specialization.

01:355:312. WRITING FOR BIOLOGY AND NATURAL SCIENCE (3)

May not be used for major or minor credit.

Project-focused course designed to address the needs of students in the biological and natural sciences. Covers grant proposals, research papers, and journal publications.

01:355:315. WRITING GRANT PROPOSALS (3)

May not be used for major or minor credit.

Theory and practice of grant writing to support research, education, or community. Focus on identifying appropriate sources of grant funding, organizing research, and tailoring projects to specific audiences.

01:355:322. WRITING FOR ENGINEERS (3)

May not be used for major or minor credit.

Project-focused course designed to address the needs of students in engineering. Covers project proposals, patent applications, technical reports, and other engineering documents.

01:355:342. SCIENCE WRITING (3)

May not be used for major or minor credit.

Practice in writing about science for general readers and presenting scientific issues or information in the genres common to journals, magazines, newspapers, and the Internet.

01:355:352. WRITING AS A NATURALIST (3)

May not be used for major or minor credit.

Advanced writing course focusing on observing and writing about animals and the natural world.

01:355:355. WRITING IN THE PROFESSIONS (3)

May not be used for major or minor credit.

Specialized writing training for professional, business, scientific, or technical fields.

01:355:365. TECHNICAL EDITING (3)

May not be used for major or minor credit.

Practice editing technical documents for grammar, syntax, organization, style, emphasis, and audience awareness.

01:355:375. COLLABORATIVE WRITING PRACTICES (3)

May not be used for major or minor credit.

Theory and practice of managing collaborative writing in organizations. Students collaborate on group projects involving planning, writing, presentation, and editing tasks.

01:355:395,396. INTERNSHIP (3,3)

Permission of department required; not to be used for major credit.

Application of skills learned in literary studies in professional settings; an appropriately designed academic project resulting in a paper.

01:355:399,400. CASE (1,1)

Not for English major or minor credit. Must be taken in conjunction with designated CASE course in the English department.

One credit community service placement in English.

01:355:402. ADVANCED WRITING WORKSHOP (3)

Advanced work in expository, scientific, technical, or business writing.

01:355:415. INFORMATION DESIGN (3)

Prerequisite: One of the following: 01:355:201, 302, 303, 312, 322, or 332.

May not be used for major or minor credit.

Project-focused workshop course using specialized writing software to design and produce a portfolio of user-friendly documents for a specific audience and purpose.

01:355:425. WEB AUTHORING (3)

Prerequisite: One of the following: 01:355:201, 302, 303, 312, 322, or 332.

May not be used for major or minor credit.

Project-focused workshop course using specialized software to design, research, generate content for, and publish a web site.

Courses (356)

01:356:155. ENGLISH FOR ACADEMIC DISCOURSE I (4)

For students with non-English language backgrounds.

Builds academic writing skills by critical reading, multidraft essay writing, and addressing sentence level vocabulary and grammar issues.

01:356:156. ENGLISH FOR ACADEMIC DISCOURSE II (4)

For students with nonnative English-speaking backgrounds.

Preparation for Basic Composition (100R) by reading academic texts, writing multidraft essays, and addressing various sentence / discourse issues.

ENTOMOLOGY

(See Cook College section)

ENVIRONMENTAL CERTIFICATES

See the Cook College section for information concerning the Environmental Planning Certificate, the Environmental Geomatics Certificate, the Fisheries Science Certificate, the Social Strategies for Environmental Protection Certificate, the International Agriculture / Environment Certificate, and the Urban / Community Forestry Certificate.

EUROPEAN STUDIES 360

Center for Comparative European Studies,
Faculty of Arts and Sciences

Web Site: <http://cces.rutgers.edu>

The program in comparative European studies seeks to enrich Rutgers University students' understanding of the historical and ongoing transformations of Europe's peoples, cultures, boundaries, and politics through an interdisciplinary approach. The major encourages the comparative analysis of various issues concerning the construction of Europe itself and its place in a global context. The program defines Europe broadly and focuses on the modern (post-1700) period.

The faculty supports the idea that different disciplinary approaches to European studies complement each other and enable students to examine the complexity and variety of ways that Europe can be understood. For this reason, students are required to fulfill core course requirements in several liberal arts disciplines. Students are required to be in close contact with a program adviser while designing their course of study.

Disciplinary Tracks

The curriculum offers a choice among three general tracks. The European Environment and Geography and European Culture tracks reflect orientations to inquiry that have traditionally been associated with the (natural and social) sciences and the humanities respectively. The European Politics, Economics, and Society track emphasizes interdisciplinary approaches to contemporary public issues.

Students with interests in the evolution, transformation, or management of Europe's physical environments or the role of science and technology in European affairs should

choose the European Environment and Geography track. Within this track it is possible to choose either an earth and atmospheric science focus or a bioscience-ecological (including human ecological) science focus. Students with interests in the development of distinctive European ideas, identities, and cultural achievements should choose the European Culture track. Within this track it is possible to specialize in the study of belief systems or creative expression and communication systems. Students with interests in contemporary processes of European social, political and economic restructuring should choose the Politics, Economics, and Society track. Within this track it is possible to specialize in sociological, anthropological, economic, political, institutional, and spatial dimensions of contemporary change in the context of an expanding Europe and its evolving role in global affairs.

Major Requirements

The major consists of 36 credits. Except for the core courses, all courses chosen including electives must first be approved by an adviser. See complete list of European studies courses on line at <http://cces.rutgers.edu>.

Core Courses (18 credits)

Focus: 12 credits within a chosen track. (Credit from approved study abroad courses may be applied to fulfill the focus or elective requirements.)

Electives: 6 credits (May include up to 3 credits for language instruction). In addition to 01:510:101, students are encouraged to take an elective course that covers a period earlier than 1700.

A grade of C or better in all courses credited toward the major is required for graduation.

In addition to fulfilling the language requirement, all majors are required to take the following courses (18 credits):

- 01:360:301 The Construction of Contemporary Europe (3)
- 01:360:401 The Idea of Europe (3)
- 01:450:332, 334 Newly Independent States and Eastern Europe, and Western Europe (3,3)
- 01:510:101, 102 Development of Europe (3,3)

Focus

Students, with the help and approval of an adviser, will develop an idea or theme of special interest, which they will explore in four courses (12 credits) within their chosen track. At least two courses must be at the 300 level or above. Special Topics courses in different disciplines may be used to satisfy these requirements with the prior permission of the program director. One independent study course may be used to satisfy part of these requirements. Students may develop an individualized concentration that focuses on a period before the 18th century.

Foreign Language Requirement

All majors are required to demonstrate proficiency in at least one European language other than English. The minimum requirement is fulfilled by demonstrated proficiency equivalent to four terms of college level study with a grade-point average of B or better. A standardized test can be used to satisfy this requirement.

Study Abroad Requirement

All students are required to complete an approved study abroad program in Europe of at least six weeks in duration. Students are strongly encouraged to spend a term or junior year abroad. Courses taught by Rutgers faculty in Europe can be used to fulfill this requirement. Under special circumstances this requirement may be waived.

Minor in European Studies

Students must complete 18 credits with a grade of C or better in the following courses:

- 01:360:301 The Construction of Contemporary Europe (3)
- 01:360:401 The Idea of Europe (3) (with permission of instructor) or an elective course approved by an adviser
- 01:450:332, 334 Newly Independent States and Eastern Europe, and Western Europe (3,3)
- 01:510:101, 102 Development of Europe (3,3)

There is no foreign language or study abroad requirement for the minor.

Honors

The program is intended for senior majors in comparative European studies. Students who have successfully completed at least 15 credits in European studies with a grade-point average of 3.4 or better in these courses and a grade-point average or better of 3.0 overall are invited to apply. Eligible candidates may pursue honors in one of two ways.

The first is a 6-credit senior thesis option in which students are expected to conduct original research and prepare an original piece of scholarship as their senior thesis. It involves enrollment in two terms of Honors in Comparative European Studies (01:360:495 and 496) in the senior year. Both terms must be completed in order to receive credit. Students are responsible for recruiting an appropriate faculty member to supervise their research and thesis. Interested students should draft a thesis proposal and consult with faculty members whose expertise lies in an appropriate area. During the second term of work, a faculty committee will conduct an oral examination in which the honors candidate will defend his or her findings and demonstrate a grasp of the literature in the area encompassed by the research undertaken.

Alternatively, students may elect to achieve honors through one of the College Honors Programs, such as Paul Robeson Scholar, Henry Rutgers Scholar, or Mabel Smith Douglass Scholar. Successful completion of any of these college honors programs under the supervision of a faculty member in the European studies program will automatically result in the award of Departmental Honors.

Courses

01:360:301. THE CONSTRUCTION OF CONTEMPORARY EUROPE (3)

Prerequisites: 01:510:101, 102.

A survey of the politics, history, economics, geography, economy, and culture of the European Union.

01:360:401. THE IDEA OF EUROPE: 18TH CENTURY TO THE PRESENT (3)

Prerequisites: 01:510:101, 102 or permission of the instructor.

Philosophical-historical dimensions of European identity and unity. Readings of primary sources central to the invention and ongoing redefinitions of the concept of Europe. Focuses on European identity, boundaries, and "otherness" in their historical development.

For a complete listing of acceptable courses, see <http://cces.rutgers.edu/undergraduate.html> or the program director.

EXERCISE SCIENCE AND SPORT STUDIES 377

Department of Exercise Science and Sport Studies,
Faculty of Arts and Sciences

Web Site: <http://www.exsci.rutgers.edu>

Chairperson: David A. Feigley

Professor:

Neil J. Dougherty, B.S., Ed.M., Rutgers; Ed.D., Temple

Associate Professor:

David A. Feigley, B.A., M.S., Ph.D., Rutgers

Assistant Professor:

Shawn Arent, B.A., Virginia; M.S., Ph.D., Arizona State

Major Requirements

The major in exercise science and sport studies offers four options: exercise science option, exercise physiology option, sport management option, and general option (requires a double major).

To graduate with the exercise science and sport studies major, students must have at least a 2.0 grade-point average from the required courses within their specific option. An interview with the department chair is required prior to admission to the program.

Required core courses for all majors include:

- 01:198:110 Introduction to Computers and Their Application (3)
- 01:377:140 Foundations of Exercise Science and Sport Studies (1.5)
- 01:377:275 Statistics and Research Design in Exercise Science (4)

Exercise Science Option

The exercise science option provides the student with a strong science foundation that emphasizes preparation for further specialized graduate study or direct entrance into a related career. Opportunities include pre-athletic training, biomechanics, fitness management, medicine, and pre-physical therapy. The following are the required courses in addition to core courses:

- 01:119:101-102 General Biology (4,4)
- 01:146:356, 357 Systems Physiology and Systems Physiology Laboratory (3,1)
- 01:160:161-162 General Chemistry (4,4)
- 01:160:171 Introduction to Experimentation (1)
- 01:377:213 Functional Human Anatomy (4)
- 01:377:301 Psychology of Sport and Exercise (3)
- 01:377:303 Neuromechanical Kinesiology (3)
- 01:377:310 Motor Learning (3)

- 01:377:324 Movement Experiences for Individuals with Disabilities (3)
 01:377:370 Exercise Physiology (3)
 01:377:371 Exercise Physiology Laboratory (1)
 01:377:406 Management in Exercise Science and Sport (3)
 01:377:410 Exercise Testing and Prescription (4)
 01:377:490 Internship I (3 or 6)
 01:377:___ Exercise science and sport studies electives, 3 credits of which must be at the 300 or 400 level (6)
 01:640:135 Calculus (4)
 01:750:193 Physics for the Sciences (4) or 01:750:203, 205 General Physics and Laboratory (3,1) or 01:750:201 Extended General Physics (5)
 01:750:194 Physics for the Sciences (4) or 01:750:204, 206 General Physics and Laboratory (3,1) or 01:750:202 Extended General Physics (5)
 01:830:101 General Psychology (3)

Exercise Physiology Option

The exercise physiology option provides students with a strong science foundation that emphasizes preparation for graduate study in a variety of fields related to sport medicine and/or direct entrance to upper-level certifications in the rehabilitation and fitness industries. The following are the courses required in addition to the core courses:

- 01:119:101-102 General Biology (4,4)
 01:146:356, 357 Systems Physiology and Systems Physiology Laboratory (3,1)
 01:160:161-162 General Chemistry (4,4)
 01:160:171 Introduction to Experimentation (1)
 01:377:213 Functional Human Anatomy (4)
 01:377:303 Neuromechanical Kinesiology (3)
 01:377:319 Risk Management for Health and Fitness Professionals (1.5)
 01:377:350 Biomechanics (3)
 01:377:370 Exercise Physiology (3)
 01:377:371 Exercise Physiology Laboratory (1)
 01:377:381 Biochemistry of Exercise (3)
 01:377:410 Exercise Testing and Prescription (4)
 01:377:454 Advanced Exercise Physiology (3)
 01:377:490 Internship I (3 or 6)
 01:377:496 EKG—Use and Interpretation (2)
 01:377:___ Exercise science and sport studies electives, 3 credits of which must be at the 300 or 400 level (6)
 01:640:135 Calculus (4)
 01:750:193 Physics for the Sciences (4) or 01:750:203, 205 General Physics and Laboratory (3,1) or 01:750:201 Extended General Physics (5)
 01:750:194 Physics for the Sciences (4) or 01:750:204, 206 General Physics and Laboratory (3,1) or 01:750:202 Extended General Physics (5)

Sport Management Option

The sport management option is designed to prepare students to enter the field of sport management including, but not necessarily limited to, sport marketing, sport business, sport administration, and facilities management. The following are the courses required in addition to the core courses:

- 33:010:272 Introduction to Financial Accounting (3)
 04:189:101 Introduction to Communication and Information Systems and Processes (3) or 04:192:201 Interpersonal Communication Processes (3)
 04:189:102 Introduction to Media Systems and Processes (3)
 04:192:380 Public Speaking (3)
 01:220:102 Introduction to Microeconomics (3)
 01:220:103 Introduction to Macroeconomics (3)
 01:355:101 Expository Writing I (3)
 01:355:303 Writing for Business and the Professions (3)
 01:377:301 Psychology of Sport and Exercise (3)
 01:377:305 Sport Sociology (3)
 01:377:311 Sport Marketing (3)
 01:377:320 Risk Management in Exercise Science and Sport (3)
 01:377:323 Sport and the Law (3)
 01:377:330 Organizational Behavior in Sport Management (3)
 01:377:406 Management in Exercise Science and Sport (3)
 01:377:490 Internship I (6)
 01:377:___ Exercise science and sport studies electives (6)
 01:640:115 Precalculus College Mathematics (4) or 01:640:111-112 Precalculus I,II (2,2) or placement into calculus
 01:830:101 General Psychology (3)
 01:920:101 Introduction to Sociology (3)

Internship Program

Students enrolled in the exercise science and sport studies major must complete an internship during their senior year. The internship provides the students with the opportunity to practice and/or apply knowledge and skills in various professional environments.

Students must satisfy the following criteria to be eligible to enter an internship: (1) complete a minimum of 90 credits with a cumulative grade-point average of at least 2.0, and (2) complete a minimum of 20 credits in the major, with a cumulative grade-point average of at least 2.0 for all required courses listed for the particular option in the major.

Departmental Honors Program

To qualify for departmental honors, a student must have attained, at the end of the first term of their junior year, a cumulative grade-point average of at least 3.4 and a grade-point average of at least 3.4 in courses in the major. By the end of the first term of the junior year, the student must formally apply to the department chairperson for admittance to the honors program. Accepted candidates must complete an Honors Seminar (01:377:480) during the spring term of their junior year when, under the guidance of the seminar instructor, an honors research project is designed and developed. During the fall term of their senior year, each student approved by the instructor must register for 01:377:481 Honors Research in Exercise Science, be assigned to an individual faculty member, and carry out the research project designed in the Honors Seminar. Both terms must be completed successfully to receive departmental honors recognition.

Courses

01:377:140. FOUNDATIONS OF EXERCISE SCIENCE AND SPORT STUDIES (1.5)

Open to all except seniors.

Historical, philosophical, and scientific foundations of the discipline.

01:377:150. PERSPECTIVES OF SPORT (3)

Historical review of sport and physical activities in the United States. Focuses on problems and issues in sport.

01:377:170. STRENGTH TRAINING THEORY AND APPLICATIONS (1.5)

Open only to majors.

Study of the organization, design, and supervision of strength training programs, with an emphasis on the anatomical and kinesiological aspects of strength training.

01:377:180. EXERCISE AND RELAXATION (1.5)

Utilizes the components of fitness with an emphasis on cardiorespiratory endurance and flexibility to achieve fitness. Modalities used for stress reduction include progressive relaxation techniques and humor.

01:377:191,192. AEROBIC FITNESS I,II (1.5,1.5)

Individualized programming of aerobic activities based on needs and interests of adult populations; designing aerobic fitness programs for specific populations.

01:377:207,208. TEACHING AND COACHING INDIVIDUAL AND TEAM SPORTS AND DANCE (3,3)

Lec./lab. Open only to majors.

Techniques of teaching, coaching, and individual acquisition of advanced sport skills.

01:377:213. FUNCTIONAL HUMAN ANATOMY (4)

Lec./lab. Prerequisites: 01:119:101-102 or permission of instructor.

Systemic and regional study of gross structure of the human body emphasizing functional interdependency among anatomical systems. Human cadaver lab.

01:377:215. TECHNIQUES OF ATHLETIC TRAINING (3)

Prerequisite: 01:377:213.

Techniques of athletic training including evaluation, treatment, and rehabilitation of injuries common in athletics.

01:377:218. EXERCISE AND HEALTH (3)

Effects of chronic exercise on the health and fitness of the human body as well as its preventive role in various disease processes.

01:377:225. CONTEMPORARY HEALTH PROBLEMS (3)

Principles in healthful living. A concept of total health, influence factors, and problems. Includes mental health, family living, consumer education, disease prevention and control.

01:377:226. COACHING THEORY AND TECHNIQUE (3)

Basic philosophical, psychological, and physiological aspects of coaching.

01:377:252. THEORIES, ASSESSMENT, AND PRACTICE OF HEALTHY BEHAVIOR (3)

Assessing personal health risks based on environmental, behavioral, genetic, and social influences. Techniques for identifying strategies and barriers to behavior change and the opportunity to modify a personal health practice.

01:377:275. STATISTICS AND RESEARCH DESIGN IN EXERCISE SCIENCE (4)

Introduction to applied descriptive and inferential statistics and research design for exercise science.

01:377:301. PSYCHOLOGY OF SPORT AND EXERCISE (3)

Prerequisite: 01:830:101 or permission of instructor.

Psychological theories and principles applied to sport. Sport influence on the quality of life at all levels of sport proficiency. Psychological techniques related to performance enhancement.

01:377:303. NEUROMECHANICAL KINESIOLOGY (3)

Prerequisite: 01:377:213. Pre- or corequisite: 01:750:193, 201, or 203.

Neuromechanical basis of kinesiology including the integration of physical principles and neurophysiology in the study of human movement.

01:377:304. EXERCISE AND AGING (3)

Examination of the effects of exercise and chronic activity on the physiological and psychological changes that occur with aging and of the factors to consider when structuring exercise programs for the aged.

01:377:305. SPORT SOCIOLOGY (3)

Prerequisites: 01:830:101 or 01:920:101 and 01:377:275 or permission of instructor.

Examination of organized sport in modern-day North America. Analysis of sports roles and sport functions. Sport viewed as a major societal institution.

01:377:307,308. TECHNIQUES OF OFFICIATING INDIVIDUAL AND TEAM SPORTS (3,3)

Lec./lab.

Techniques of officiating sports with an intensive study of the rules.

01:377:310. MOTOR LEARNING (3)

Lec./lab. Prerequisites: 01:377:213 and 01:830:101.

Study of the processes that underlie learning and performance of motor skills.

01:377:311. SPORT MARKETING (3)

Prerequisites: 01:220:102 or 11:373:121 and 01:220:103.

Principles of marketing applied to sport. Examines sport industry trends that heighten the need for scientific, professional approaches to sport marketing. Examines consumer behavior, marketing research, pricing, distribution, and promotion of goods and services.

01:377:315. ADVANCED THEORIES AND TECHNIQUES OF ATHLETIC TRAINING (3)

Prerequisite: 01:377:215.

In-depth analysis of athletic injury mechanisms, injury evaluation techniques, use of modalities, and anatomy of the extremities.

01:377:318. ORGANIZATION AND ADMINISTRATION OF COLLEGE RECREATIONAL SPORTS (3)

Philosophical and practical approach to the development and implementation of recreational sports and activities promoted within the confines of an educational institution.

01:377:319. RISK MANAGEMENT FOR HEALTH AND FITNESS PROFESSIONALS (1.5)

Open to majors only. Credit not given for both this course and 01:377:320 or 323.

In-depth study of factors essential to the safe delivery of health and fitness programs.

01:377:320. RISK MANAGEMENT IN EXERCISE SCIENCE AND SPORT (3)

In-depth study of factors essential to the safe delivery of exercise programs and sport activities and events.

01:377:323. SPORT AND THE LAW (3)

Legal issues affecting sport, recreation, and physical education. Topics include equal opportunity legislation, tort liability, product liability, participant liability, and legal rights of supervisors and participants.

01:377:324. MOVEMENT EXPERIENCES FOR INDIVIDUALS WITH DISABILITIES (3)*Prerequisite: 01:377:213.*

Survey of major mental and physical conditions that may require consideration in movement experiences.

01:377:327. FIELD EXPERIENCE FOR INDIVIDUALS WITH DISABILITIES (1)*Pre- or corequisite: 01:377:324.*

Apprenticeship in school or voluntary agency dealing with physical education and / or recreational programs for the handicapped.

01:377:330. ORGANIZATIONAL BEHAVIOR IN SPORT MANAGEMENT (3)*Prerequisite: 01:830:101.*

Organization and personnel behavior theory applied to contemporary sports organizations. Issues in industrial, professional, collegiate, and scholastic contexts examined.

01:377:342. INDEPENDENT STUDY IN SPORT STUDIES (3)*Open only to juniors and seniors by permission of department.*

Supervised individual research or study in the field of sport.

01:377:343,344. WORKSHOP IN EXERCISE SCIENCE (1,1)*Open only to juniors and seniors by permission of department.*

Laboratory experience in analyzing and evaluating human movement.

01:377:346. SAFETY EDUCATION AND EMERGENCY CARE (3)

Principles and practices of safety education and accident prevention. Planning and implementing safety programs. Legal aspects of safety programs and emergency care.

01:377:350. BIOMECHANICS (3)*Prerequisites: 01:377:213, 303.*

Study of human movement through the application of basic mechanical principles and cinematographic procedures; emphasis on analysis of sport skills from a quantitative perspective.

01:377:352. PREVENTION AND TREATMENT OF ATHLETIC INJURIES (3)

Overview of sports medicine covering regional anatomy and modern methods of diagnosis and treatment, including joint arthroscopy and video analysis of injuries.

01:377:361. INDEPENDENT STUDY IN HEALTH EDUCATION (3)*Open only to junior and senior majors by permission of department.*

Supervised individual research or study in the field of health education.

01:377:362. INDEPENDENT STUDY IN EXERCISE SCIENCE (3)*Open only to junior and senior majors by permission of department.*

Supervised individual research or study in the field of exercise science.

01:377:370. EXERCISE PHYSIOLOGY (3)*Prerequisites: 01:119:101-102, 01:146:356, or permission of instructor.*

Selected topics dealing with the physiological responses to exercise stress and the adaptive changes that occur with training.

01:377:371. EXERCISE PHYSIOLOGY LABORATORY (1)*Pre- or corequisite: 01:377:370.*

Laboratory to accompany 01:377:370.

01:377:380. NUTRITIONAL ASPECTS OF ATHLETIC PERFORMANCE (3)*Prerequisites: 01:119:101-102.*

Practical approach to information regarding basic nutrients with emphasis on the needs of athletes during high-intensity training and performance.

01:377:381. BIOCHEMISTRY OF EXERCISE (3)*Pre- or corequisite: 01:146:356.*

Essential concepts of biochemistry—molecular biology, basic chemistry, metabolism, and transcription regulation—as applied to the exercising human, as well as current understanding of sports nutrition.

01:377:406. MANAGEMENT IN EXERCISE SCIENCE AND SPORT (3)*Open to senior majors or by permission of department.*

Concepts of administrative processes, systems, and styles with application to various sport environments. Includes program, facility, fiscal, and personnel management.

01:377:410. EXERCISE TESTING AND PRESCRIPTION (4)*Lec., lab. Prerequisites: 01:377:213, 275, 370, 371.*

Application of physiological principles and development of practical skills for fitness evaluation and exercise prescription.

01:377:421. PROFESSIONAL SEMINAR (3)*Open only to seniors majoring in exercise science and sport studies or by permission.*

Current trends and research in exercise science and sport studies explored through weekly seminars, review of pertinent literature, and active discussions with professionals.

01:377:424. HUMAN ANATOMY (4)*Lec. 3 hrs., lab. 3 hrs. Prerequisites: 01:119:101-102. Open only to juniors and seniors.*

Introduction to the concepts of human gross anatomy. Provides working knowledge of the structure and function of the body. Clinical and surgical applications of anatomy. Laboratory work with skeletal material, anatomical models, films, and roentgenograms.

01:377:440. NEUROANATOMY AND ANTHROPOGENESIS (4)*Lec. 3 hrs., lab. 3 hrs. Prerequisites: 01:119:101-102. Open only to juniors and seniors.*

Study of the human nervous system, leading to an appreciation of the mechanism of the brain and spinal cord. Human gross anatomy and the physical anthropology of humankind.

01:377:454. ADVANCED EXERCISE PHYSIOLOGY (3)*Prerequisites: 01:377:370, 371, 381.*

Contemporary research topics in exercise physiology that include acute and chronic adaptations to exercise, central and peripheral neuromotor function, neuroendocrine response to exercise, environmental physiology, biochemical monitoring of exercise, and performance enhancement / training theory.

01:377:470. THE PSYCHOLOGY OF THE ELITE ATHLETE (3)*Prerequisite: 01:377:301 or 305 or permission of instructor.*

Psychological factors that affect high-level sports performance. Unobtrusive research methods capable of assessing elite athletic performance covered in detail.

01:377:480. HONORS SEMINAR IN EXERCISE SCIENCE (3)*Prerequisite: 01:377:275. Open only to seniors in departmental honors program.*

Design of an original research project in exercise science complete with a literature survey, problem statement, research hypotheses, experimental design, research procedures, appropriate data analyses, and potential implications.

01:377:481. HONORS RESEARCH IN EXERCISE SCIENCE (3)*Prerequisites: 01:377:480 and departmental permission.*

Independent study for seniors who have been accepted into the departmental honors program.

01:377:490. INTERNSHIP I (BA)*Prerequisite: Permission of department and a 2.0 cumulative grade-point average in the major. Open only to majors.*

Supervised individual fieldwork in exercise science and sport studies.

01:377:491. INDEPENDENT STUDY (BA)*Prerequisite: Permission of department. Open only to majors.*

Supervised individual research or study.

01:377:493. INTERNSHIP II (BA)*Prerequisite: 01:377:490.*

Directed field experience in the area of specialization.

FRENCH

01:377:496. EKG—USE AND INTERPRETATION (2)

Prerequisite: 01:146:356. *Recommended:* 01:377:370.

Evaluation of the scientific basis and utility of the EKG and exercise stress test. Information on obtaining and interpreting EKGs.

FILM STUDIES

(See Cinema Studies 175, English 354)

FINANCE 390

(See Rutgers Business School:
Undergraduate—New Brunswick section)

FOOD SCIENCE 400

(See Cook College section)

FOREIGN LANGUAGE PROFICIENCY CERTIFICATES

Several of the foreign language and literature departments (French, German, Hungarian, Italian, and Russian) award a certificate in foreign language proficiency based on demonstrated ability to comprehend, speak, read, and write the foreign language. The usual requirement is a grade of B or better in 6 credits of work taken in courses at or above the 300 level conducted entirely in the foreign language. Individual departments may specify particular courses or examinations to be completed in demonstrating this standard. For further information, consult the appropriate foreign language department.

Note: The foreign language proficiency certificates are awarded only with or subsequent to the awarding of a baccalaureate degree in an approved major.

FRENCH 420

(See also History / French Joint Major 513)

Department of French, Faculty of Arts and Sciences

Web Site: <http://french.rutgers.edu>

Chairperson: Richard Lockwood

Professors:

François Cornilliat, B.A., M.A., *Doctorat 3e cycle, Doctorat d'Etat, Paris*
Josephine Diamond, B.A., *Leeds (England); M.A., Ph.D., Harvard*
Uri Eisenzweig, B.A., *Tel Aviv; M.A., Doctorat 3e cycle, Paris*
Jerry Flieger, B.A., *Wisconsin; M.A., Ph.D., California (Berkeley)*
Mary Lewis Shaw, B.A., *Arizona; M.A., M.Phil., Ph.D., Columbia*
Mary Speer, B.A., *Duke; M.A., Ph.D., Princeton*
Alan Williams, B.A., M.A., *Washington; Ph.D., SUNY (Buffalo)*

Associate Professors:

Renée Larrier, B.A., *Hofstra; M.A., Atlanta; Ph.D., Columbia*
Richard Lockwood, B.A., *Cornell; M.A., Ph.D., Johns Hopkins*
Ana Pairet-Viñas, B.A., *Paris IV (Sorbonne); Ph.D., Pennsylvania*
Richard Serrano, B.A., *Stanford; M.A., Ph.D., California (Berkeley)*
James B. Swenson, Jr., B.A., *Brown; M.A., Ph.D., Yale*

Assistant Professors:

Carole Allamand, B.A., M.A., *Geneva; M.A., Ph.D., Cornell*
Lorraine Piroux, B.A., M.A., *Paris; M.A., Illinois; Ph.D., Northwestern*
Derek G. Schilling, B.A., *Williams College; Ph.D., Pennsylvania, Paris VIII*

Visiting Professors:

Boris Boubacar Diop, *Novelist, Playwright, and Journalist*
Geneviève Fraisse, *Research Director, Centre National de la Recherche Scientifique*
Claude Mouchard, *Professor, French Literature; Paris VIII*
Jacques Rancière, *Professor, Philosophy; Paris VIII*

Placement

Students are placed in French courses according to performance on the placement test taken on entering the university as first-year or transfer students.

Major Requirements

The French major consists of 33 credits. Students majoring in French may choose one of three distinct options: French cultural studies, French linguistics, or French literary studies. All French majors are strongly urged to spend at least one term in residence in the French House or in a French-language dormitory and/or to participate in a program of study in a French-speaking country.

A grade-point average of 2.0 in all French courses taken at Rutgers at the 213 level or above is required of all majors.

French Cultural Studies

This option is designed to provide students with a critical knowledge of the culture, civilization, and history of France and Francophone areas. It consists of 33 credits, including 01:420:213, 214, 215 or 217, and 216 or 218, plus 21 credits on the 300 and 400 levels, of which 12 must be on the 400 level, 6 must be in literature, and only 3 may be taken in English. Students entering the program too late to take 01:420:215 or 217, and 216 or 218 must take 6 credits of 300-level literature instead. If approved in writing by a French adviser, students may replace 01:420:213 and/or 214 with 300-level courses. One 300- or 400-level course may be taken, as part of the major requirement, in a discipline such as history, art history, political science, or economics, provided it focuses on French or Francophonic subjects, and is approved in writing by a French adviser. Nine of the required 400-level credits must be taken with French professors in the New Brunswick / Piscataway Faculty of Arts and Sciences. All students must take the senior seminar 01:420:481, usually in the fall of their senior year.

French Linguistics

This option focuses on the study of the nature of the human language faculty and aims at providing an understanding of what it means to “know” a language. While the curriculum centers on the French language, it acquaints the student with the central questions of modern linguistics and introduces elementary tools of formal syntax, phonology, and morphology. The French linguistics major consists of 33 credits, including 01:420:213, 214, 215 or 217, 216 or 218, 01:615:201 (in the Department of Linguistics), plus 18 credits on the 300 and 400 levels, of which 12 must be on the 400 level, and only 3 may be taken in English. Students entering the program too late to take 01:420:215 or 217, and 216 or 218 must take 6 credits of 300-level literature instead. If approved in writing by a French adviser, students may replace 01:420:213 and/or 214 with 300-level courses.

Of the 300- or 400-level credits, at least 12 must be in French linguistics and/or the history of the French language. Of the remaining credits, 3 may be taken in the Department of Linguistics.

French Literary Studies

This option is designed to acquaint students with a wide spectrum of French literature and to provide them with the skills and methodology for the critical analysis of literary texts, history, and theory. It consists of 33 credits, including 01:420:213, 214, 215 or 217, and 216 or 218, plus 21 credits on the 300 and 400 levels, of which 12 must be on the 400 level, only 6 may be nonliterary, and only 3 may be taken in English. Students entering the program too late to take 01:420:215 or 217 and 216 or 218 must take 6 credits of 300-level literature instead. If approved in writing by a French adviser, students may replace 01:420:213 and/or 214 with 300-level courses. One 300- or 400-level course may be taken in another literature department, provided it is approved in writing by a French adviser. Nine of the required 400-level credits must be taken with French professors in the New Brunswick/Piscataway Faculty of Arts and Sciences. All students must take the senior seminar 01:420:480, usually in the fall of their senior year.

Minor Requirements

The French minor consists of a sequence of six 3-credit courses given in French. It must include 01:420:215 (or 217) and 216 (or 218) and three courses at the 300 level or above. Of the 100-level courses, only 01:420:131 or 132 may be counted toward the minor. Students electing to take both 01:420:213 and 214 are exempted from one required 300-level course.

Departmental Honors Program

Students majoring in French may elect to prepare an honors thesis during their senior year. An overall cumulative grade-point average of 3.0 and a grade-point average of 3.4 or better in French are required. Three of the credits earned in the honors program may be counted toward the major requirements. Students in the literary studies option are encouraged to undertake a thesis, selecting a topic in the spring of the junior year. Students select either the comprehensive examination and honors paper option, 01:420:495-496 (6 credits), or a research thesis option, 01:420:497-498 (8 or 12 credits). Other options also are available for interdisciplinary undergraduate research. Interested students are invited to obtain a full program description from the honors committee at the department.

At the introductory level, 01:420:217 and 218 are offered as honors courses to students with strong placement scores or who participate in college honors programs. Also, each term, the department designates an advanced course for honors students.

Teaching Certificate Option

Students intending to seek certification as secondary teachers should obtain information about application requirements from the Graduate School of Education no later than the second year.

Summer Program in Paris

Each summer the Department of French offers the Cours d'Été in Paris. This program, staffed by faculty from the department and from universities in Paris, offers an opportunity to earn 6 to 8 credits in a native French setting and provides cultural and extracurricular activities to acquaint students more fully with French life. To participate in this program, a student must have at least one year of college-level French or the equivalent. Inquiries should be addressed to the Department of French.

Study Abroad Program in France

Rutgers offers yearlong and one-term programs of studies at the University in Tours, France. The programs, which offer courses in most disciplines, can be very beneficial to prospective French majors and minors, particularly if attended in the sophomore year. The prerequisites for participation in the program differ for sophomore and junior years. Detailed information is available from the department or the Study Abroad Office.

Certificate of Proficiency in French

The department awards a certificate of proficiency in French based on demonstrated ability to comprehend, speak, read, and write French as attested by a grade of B or better in 6 credits of work taken in courses conducted entirely in French at the 300 level or above. Qualified students submit an application at the department office by the end of the fifth week of their last term of residence.

Diploma in French Commerce

This internationally recognized diploma is granted by the Chambre de Commerce de Paris to those successfully completing a special examination offered at Rutgers each May after the final examination period. Details are available from the French department.

Information for Students

Each term, the department makes available in its offices a detailed description of its programs and all courses to be offered the following term. Students are strongly encouraged to consult this information and the departmental advisers.

Program and course information also is available at the department's web site <http://french.rutgers.edu>.

Courses in English

01:420:241,242. MAJOR FRENCH WRITERS IN TRANSLATION (3,3)

Landmarks of French literature from the Renaissance to the present. Plays, novels, and essays of such authors as Molière, Voltaire, Rousseau, Balzac, Flaubert, Sartre, and Camus.

01:420:305,306. THE FRENCH FILM IN ENGLISH (3,3)

Credit not given for these courses and 01:420:307,308.
Film as a major expression of French culture; viewing and analysis of films by such directors as Truffaut, Chabrol, Rohmer, Renoir, Clair, and Cocteau. Introduction to methods of criticism.

01:420:313. TWENTIETH-CENTURY FEMINISM: THEORIES OF GENDER (3)

Exploration of 20th-century French women writers in the social context of feminist theories of gender and the relation of theory to literary practice.

01:420:314. CONTEMPORARY FRENCH CRITICAL THOUGHT (3)

Introduction to contemporary French intellectual trends, with emphasis on poststructuralist movements. Readings of such writers as Barthes, Derrida, Foucault, and Lacan.

Courses in French**Prerequisites**

French 01:420:215 or 217 and 216 or 218, or 6 credits of literature at the 300 level are prerequisite to all 400-level courses in culture and literature.

01:420:101-102. ELEMENTARY FRENCH (4,4)

Not open for credit to students who have had two or more years of secondary school French.

Functional use of the language in speaking, writing, and reading modern French. Laboratory exercises.

01:420:103,104. ELEMENTARY FRENCH LABORATORY (1,1)

Corequisites: (103) 01:420:101; (104) 01:420:102.

Instructor-guided laboratory practicum based on intensive use of media and designed for the improvement of aural/oral skills. Practice involves use of text-related audiotapes and videotapes, individual and group work, and recordings of student speech for evaluation of pronunciation and fluency.

01:420:105. FRENCH FOR READING KNOWLEDGE (3)

Not open for credit to students who have had two or more years of secondary school French.

Development of reading skills. Texts chosen from the humanities and social studies.

01:420:121. FRENCH FUNDAMENTALS (4)

Prerequisite: Placement test.

Intensive review and practice of the fundamentals of French conversation, reading, and composition. Laboratory exercises.

01:420:131-132. INTERMEDIATE FRENCH (4,4)

Prerequisites: 01:420:102, 121, or placement test.

Development of fluency in written and spoken French. Conversation, composition, and grammar review using short literary texts and audiovisual materials.

01:420:171. FRENCH THEATER WORKSHOP (1.5)

Production of selected scenes in French.

01:420:210. INTENSIVE FRENCH CONVERSATION (3)

Prerequisite: Placement test or 01:420:132 or both. May not be used to satisfy major requirements.

Development of facility and accuracy in oral expression and listening comprehension. Class exercises and discussion, written work, and extensive audio and video laboratory work.

01:420:213. INTENSIVE ADVANCED GRAMMAR (3)

Prerequisite: Placement test or 01:420:132.

Intensive study of the forms and structures of French grammar to complete mastery of foundations for advanced courses. Written work, class drill, laboratory exercises.

01:420:214. COMPOSITION AND STYLISTICS (3)

Prerequisite: 01:420:213.

Study and practice in composition to perfect skills for written French. Analysis and imitation of writing styles and forms; vocabulary development, syntax; frequent written exercises.

01:420:215,216. ASPECTS OF FRENCH LITERATURE (3,3)

Prerequisite: Placement test or 01:420:132. Credit not given for both 01:420:215 and 217 or for both 01:420:216 and 218.

Introduction to French literature focusing on significant themes, genres, and literary movements. Readings of representative authors from the Renaissance to the present.

01:420:217,218. APPROACHES TO FRENCH LITERATURE (3,3)

Prerequisite: Placement test or 01:420:132. Honors. Credit not given for both 01:420:215 and 217 or for both 01:420:216 and 218.

Introduction to French literature through close reading of texts from Renaissance to present; special attention to nature of literary work and to goals and methods of literary analysis.

06:090:275,276. THE FRENCH LANGUAGE EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass French House. May not be used to satisfy major requirements. Course may be repeated.

Development of active language skills through formal instruction and the daily experience of foreign language immersion in the varied activities of the Ile de France house.

01:420:299. LANGUAGE HOUSE/DORMITORY RESIDENCE (E3)

Prerequisite: Permission of the college housing authority concerned. Graded as satisfactory or unsatisfactory. Section number identifies the college concerned.

Residence in a French-speaking dormitory section.

01:420:303. ADVANCED FRENCH CONVERSATION (3)

Prerequisite: 01:420:210 or 216. Not open to native speakers or to students returning from junior year in France.

Discussion of topics to develop fluency of speech and command of idioms. Group conversations and debates.

01:420:307,308. THE FRENCH FILM IN FRENCH (3,3)

Credit not given for these courses and 01:420:305,306.

Film as a major expression of French culture; viewing and analysis of films by such directors as Truffaut, Chabrol, Rohmer, Renoir, Clair, and Cocteau. Introduction to methods of criticism.

01:420:310. INTRODUCTION TO FRANCOPHONE LITERATURE (3)

Survey of texts in French from Africa (including Maghreb and Madagascar), the Caribbean, North America, and Southeast Asia.

01:420:315. FRENCH CIVILIZATION FROM THE MIDDLE AGES TO THE REVOLUTION (3)

Analysis of Old Régime foundations of French culture; concentration on interaction and evolution of social and intellectual phenomena.

01:420:316. FRENCH CIVILIZATION FROM THE REVOLUTION TO THE PRESENT (3)

Analysis of development of modern French culture; concentration on interaction and evolution of social and intellectual phenomena.

01:420:317. FRENCH: CULTURE AND COMMUNITY (4)

Special permission required; contact department.

Developed through the universitywide CASE program, this course combines a study of the evolving themes of community and education in French literature with service by teaching of French at community schools.

01:420:319. WOMEN WRITERS FROM 1789 TO THE PRESENT (3)

Analysis and discussion of the cultural contexts, modes of expression, and self-definitions of women writers in modern France from the Revolution of 1789 to the post-1968 revolutions in feminist theory and practice.

01:420:320. THEATER WORKSHOP (3)

Reading, discussion, and production of representative texts from French dramatic literature.

01:420:324. FRENCH COMMERCE (3)

Prerequisites: 01:420:215 or 217; 216 or 218.

Fundamental principles governing commercial organizations in France. Practical business correspondence.

05:300:331. MATERIALS AND METHODS IN FRENCH (3)

Only for students in the French teaching program; others by permission of instructor. May count as education credit but not toward the major in French.

Solutions to classroom problems. Course planning; teaching aims, pedagogical devices, language content, cultural background, selections of text.

01:420:332. FRENCH PHONETICS AND APPLIED LINGUISTICS (3)

Prerequisite: 01:420:132. Not open to first-year students.

French phonetics in theory and practice. A comparative study of English and French sounds. Exercises in transcription and correct pronunciation.

01:420:333. INTRODUCTION TO FRENCH SYNTAX (3)

Prerequisite: 01:615:201 or permission of instructor.

Introduction to the methods and concerns of modern theoretical linguistics and to the practice and theory of syntax through the study of particular problems in the syntax of French.

01:420:335,336. THE FRENCH NOVEL (3,3)

Forms and techniques of the novel from La Princesse de Clèves to the present.

01:420:337. THE FRENCH THEATER (3)

Analysis of dramatic structure and meaning in texts selected from the classical tradition to the theater of the Absurd.

01:420:338. FRENCH POETRY (3)

Critical interpretation of French poetry with particular attention to the unique problems of French prosody and poetic theory. Selected texts from the 16th century to the 20th century.

01:420:341,342. ONE FRENCH WRITER (3,3)

Author chosen each term/year dependent on faculty and student interest.

Intensive study of the work of a single author. Analysis of elements such as writer's place in literary or cultural history, critical approaches, the writer's role in a given genre.

01:420:351. LITERATURE IN FRENCH SOCIETY (3)

Exceptional role of literature in French culture, politics, and day-to-day life. Generally studies one topic in a given historical period.

01:420:371,372. TOPICS IN FRENCH CINEMA (3,3)

One course in French cinema, 01:420:305, 306, 307, or 308 recommended.

Topics such as relations between film and other genres (novel, theater); film in relation to cultural history; introduction to critical approaches to film. Consult departmental announcement.

01:420:391,392. TOPICS IN FRENCH/FRANCOPHONE LITERATURE AND CULTURE (3,3)

Special topics selected to meet the interests and needs of the students.

01:420:393,394. TOPICS IN FRENCH LITERATURE AND CULTURE (1.5,1.5)

Special topics selected to meet the interests and needs of the students. Seven-week courses.

01:420:395,396. JUNIOR HONORS SEMINAR (3,3)

Open to students in departmental or college honors programs or by permission of department.

In-depth examination of a problem, topic, or theme in French literature or culture, in order to develop analytic and research skills. Subject announced by department.

01:420:399. SERVICE LEARNING INTERNSHIP (1)

Corequisite: Must be taken in conjunction with a designated CASE (Citizenship and Service Education) course offered in the Department of French.

One-credit community service placement in teaching French.

01:420:401. TRANSLATION (3)

Techniques of translation; study of dictionaries and specialized vocabularies; texts selected from the humanities and the social sciences.

01:420:402. ADVANCED STYLISTICS AND COMPOSITION (3)

Prerequisite: A 300-level French course.

Study of rhetoric through the detailed stylistic analysis of literary texts and the imitation of writing techniques.

01:420:403. HISTORY OF THE FRENCH LANGUAGE (3)

Prerequisites: 01:420:213, 214, 215 or 217; 216 or 218.

Development of the French language from its origins to the present; suggestions of possible future evolution. Emphasis on phonology, morphology, syntax, and lexicon; consideration of cultural forces influencing linguistic stability or change at crucial points in French history.

01:420:405,406. MODERN FRANCE (3,3)

First term: economic and social background; interpretive analysis of major problems affecting French life; audiovisual materials. *Second term:* analysis of major trends in French culture and institutions.

01:420:407. ADVANCED FRENCH SYNTAX (3)

Prerequisite: 01:420:333 or equivalent course in linguistics.

Study of advanced problems in French syntax in conjunction with theoretical problems in linguistics.

01:420:409. STUDIES IN CULTURES OF THE FRANCOPHONE WORLD (3)

Analysis of the cultural production (including film, music, visual and performing arts, and literature) of regions in which the French language plays a major role.

01:420:410. SUB-SAHARAN AFRICAN LITERATURE (3)

Study of literature in French by writers in or from Sub-Saharan Africa.

01:420:411. NORTH AFRICAN LITERATURE (3)

Study of literature in French by writers in or from the Maghreb.

01:420:412. CANADIAN LITERATURE (3)

Study of literature in French by writers in or from Québec and other regions of Canada.

01:420:413. CARIBBEAN LITERATURE (3)

Study of literature in French by writers in or from the Caribbean (Haiti, Martinique, Guadeloupe, French Guiana).

01:420:415. MEDIEVAL FRENCH LITERATURE (3)

The French Middle Ages: readings in epic, romance, didactic literature, and lyric poetry of the 12th through the 15th centuries; texts usually read in modern French translations.

01:420:416. SIXTEENTH-CENTURY FRENCH LITERATURE (3)

The French Renaissance: tradition and innovation in the writings of such authors as Marot, Rabelais, Marguerite de Navarre, Montaigne, and the poets of the Pléiade.

01:420:421. FRENCH POETRY AND PROSE OF THE 17TH CENTURY (3)

Selected works from the major writers representing the aesthetic and intellectual currents of the age.

01:420:422. FRENCH CLASSICAL DRAMA (3)

Major plays of Corneille, Molière, and Racine.

01:420:431,432. THE AGE OF ENLIGHTENMENT (3,3)

Great writers of the 18th century, Montesquieu, Voltaire, Diderot, and Rousseau, and their relationship to the social, literary, and intellectual currents of the period.

01:420:441. ROMANTICISM IN FRANCE (3)

French romanticism, its origins, psychology, and development, with readings from Madame de Staël, Hugo, Balzac, Stendhal, and their contemporaries.

01:420:442. FRENCH LITERATURE AND THOUGHT FROM 1848 TO 1894 (3)

Development of realism and naturalism, the poetry of the Parnassians and the symbolists. Readings from Baudelaire, Flaubert, Zola, and their contemporaries.

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01:420:451. TWENTIETH-CENTURY FRENCH DRAMA (3)

French drama from Claudel through Beckett to Kolté; new concepts in dramatic art. Relations among authors, actors, the public, and the period.

01:420:452. TWENTIETH-CENTURY FRENCH NOVEL (3)

Readings in works by such authors as Proust, Gide, Camus, Sartre, Duras, and Perec; the "nouveau roman." The novel in relation to social, philosophical, and political thought.

01:420:455,456. MAJOR CURRENTS OF FRENCH THOUGHT (3,3)

Critical and formal analysis of literary texts selected to illustrate the development of ideas in France from the *Roman de la Rose* to the present.

01:420:471,472. ADVANCED TOPICS IN FRENCH CINEMA (3,3)

Two courses in French cinema, 01:420:305, 306, 307, 308, or 371, recommended. Topics such as detailed studies of issues in film theory, analysis, or history; in-depth study of schools, movements, or specific film makers. Consult departmental announcement.

01:420:480. SENIOR SEMINAR IN FRENCH LITERATURE (3)

Open only to senior majors in French literary studies. Thorough and probing study of an important theme, topic, or movement within the history of French literature. Subject announced by the department.

01:420:481. SENIOR SEMINAR IN FRENCH CULTURE (3)

Open only to senior majors in French cultural studies. In-depth examination of a problem or period in French civilization, with a focus on development of interpretive and analytic skills. Subject announced by the department.

01:420:490. ADVANCED TOPICS IN FRENCH AND FRANCOPHONE LINGUISTICS (3)

Prerequisites: 01:420:333, 01:615:201, or permission of instructor.

01:420:491,492. ADVANCED TOPICS IN FRENCH/FRANCOPHONE LITERATURE AND CULTURE (3,3)

Special topics selected to meet the interests and needs of the students.

01:420:493,494. INDEPENDENT STUDY (BA,BA)

Prerequisites: Permission of instructor and departmental chairperson.

01:420:495-496. HONORS PROJECT: FRENCH (3,3)

Prerequisite: Permission of departmental honors committee. Preparation for written and oral honors examination and honors paper based on research under the direction of the departmental honors committee.

01:420:497-498. HONORS RESEARCH THESIS: FRENCH (4,4 OR 6,6)

Prerequisite: Permission of departmental honors committee. Both terms must be completed to receive credit. Research thesis and defense under the direction of the departmental honors committee.

GENETICS

(See Life Sciences)

GEOGRAPHY 450

Department of Geography, Faculty of Arts and Sciences

Web Site: <http://geography.rutgers.edu>

Chairperson: James K. Mitchell

Professors:

James K. Mitchell, B.S., Queen's University of Belfast; M.A., M.C.P., Cincinnati; Ph.D., Chicago
Karl F. Nordstrom, A.B., M.S., Ph.D., Rutgers
Joanna Regulska, M.A., Warsaw; Ph.D., Colorado
David A. Robinson, B.Sc., Dickinson; M.S., Ph.D., Columbia
Peter O. Wacker (Emeritus), B.A., Montclair State; M.A., Ph.D., Louisiana State

Associate Professors:

Robert M. Hordon, B.A., CUNY (Brooklyn College); M.S., Ph.D., Columbia
Robin M. Leichenko, B.S., Wisconsin; M.A., Colorado; M.A., Ph.D., Pennsylvania State
Richard Schroeder, B.A., Macalester; M.S., Wisconsin; Ph.D., California (Berkeley)

Assistant Professors:

Laura Schneider, B.S., Universidad Nacional de Columbia; Ph.D., Clark
Kevin St. Martin, B.A., M.S., Massachusetts; Ph.D., Clark

Instructor:

Roger Balm, B.Ed., Nottingham (England); M.S., Massachusetts; Ph.D., Rutgers

Geography is the study of Earth in its relationship to the people that inhabit it. The discipline provides a broad place-centered perspective on the transformation of environments by society and nature. Geography majors receive a liberal arts education that is an appropriate base for further specialized training in academic disciplines that address environmental and international issues or in related professional fields such as planning and public policy, law, and environmental management. Students are provided with specific technical skills in computerized information retrieval, spatial data analysis, cartographic representation, remote sensing, and geographic information systems that are suitable for entry-level employment opportunities.

Major Requirements

A minimum of 39 credits in geography is required, divided among three areas:

General courses (12 credits): 01:450:101, 102, 103, and 470

Methods courses (9 credits): 01:450:330 and any two courses from 01:450:320, 321, 322, 355, and 357

Specialized courses (18 credits): Six additional courses in geography, including one regional geography course (selected from 01:450:332, 334, 335, 336, 338, 341, and 342). At least three of the specialized courses must be at the 300 or 400 level. No more than one course with the grade of *D* can be applied toward the major.

There are no formal options, but students are strongly encouraged to select most of their specialized courses from one of three areas of emphasis: environmental systems and global change, environment and society, or urban and international restructuring.

If appropriate, majors are encouraged to substitute independent research projects under faculty supervision (01:450:491,492 or 01:450:495,496) or graduate courses for up to two of the courses in the specialized group.

Minor Requirements

Six courses (18 credits) are required for the minor in geography: 01:450:101, 102, 103, and at least three additional geography courses, two of which must be at the 300 level or above. No more than one course with the grade of *D* can be applied toward the minor.

Departmental Honors Program

Students with a cumulative grade-point average of 3.0 or better and a grade-point average of 3.4 or better in the major at the end of the junior year may apply for admission to the honors program by writing to the department chairperson no later than the first week of the senior year. Candidates spend two terms preparing an honors paper under the supervision of a designated faculty member and complete an oral examination of the project during the final term of the senior year. In addition to completing all requirements for the geography major, candidates in the departmental honors program must complete either 01:450:495 or 496 (Honors Project: Geography).

Andrew Hill Clark Prize

The most outstanding graduating senior is eligible to receive the Andrew Hill Clark Prize in Geography.

Cartography Certificate

A certificate in cartography is awarded to students who complete 01:450:320, 322, 355, 356, 357, and 321 or 487 with a B or better for each course.

All students, regardless of major, are eligible to participate in the cartography certificate program. The certificate is awarded only with, or subsequent to, the awarding of a baccalaureate degree in an approved major.

Certificate in International Geographic Perspectives

A minimum of 24 credits is required for the Certificate in International Geographic Perspectives. Core courses totaling 15 credits are required: 01:450:102, 103, 205, 262, and 405. A regional course also is required, choosing among the following: 01:450:332, 334, 335, 336, 338, 341, or 342. The final 6 credits may be taken as electives from the following courses: 01:450:211, 222, 240, 311, 361, 363, 491, or 492. All students regardless of major are eligible to participate in this certificate program. The certificate is awarded only with, or subsequent to, the awarding of a baccalaureate degree in an approved major.

Courses

01:450:100. INTRODUCTION TO GEOGRAPHY (3)

Geographer's view of the earth, including the natural order of the physical environment, human modification of environments, organization of society, and regional studies.

01:450:101. EARTH SYSTEMS (3)

Systematic introduction to physical processes on Earth; including Earth-Sun relations, weather and climate, the hydrologic cycle, earth materials, and landforms. Emphasis on interrelationships among these phenomena.

01:450:102. TRANSFORMING THE GLOBAL ENVIRONMENT (3)

Introduction to the role of humans as modifiers and transformers of the physical environment. Emphasis on 20th-century changes and contemporary public issues.

01:450:103. HUMAN GEOGRAPHY: SPACE, PLACE, AND LOCATION (3)

Introduction to the spatial patterning of human activities and the role of place in human affairs. Population distributions; world cultural patterns; organization of urban and nonurban societies including land use, transportation, and communications. Impacts of global restructuring.

01:450:111. LABORATORY IN EARTH SYSTEMS (1)

Lab. 3 hrs. Pre- or corequisite: 01:450:101.

Map construction, collection of raw data, and analysis of environmental variables.

01:450:140. THE GREENHOUSE EFFECT (3)

Lec. 2 hrs., lab. 1.5 hrs. For nonscience majors; not for major credit in science and engineering. Credit not given for both this course and 01:160:140, 01:556:140, or 01:750:140.

Physical and chemical bases of the "greenhouse effect" and its global impact; biological, climatic, economic, and political. Reducing the emission of "greenhouse" gases; nuclear energy and other alternative energy sources.

01:450:205. WORLD CULTURAL REGIONS (3)

Geography of the world's major cultural regions: Europe; Russia and the Newly Independent States; the Americas; East Asia, Australasia, and Oceania; South Asia; the Middle East; and Africa.

01:450:208. MAPS AND MAP READING (3)

Interpretation of the physical and cultural elements of the earth using topographic maps of various scales.

01:450:211. CONSERVATION AND USE OF NATURAL RESOURCES (3)

Evolution of conservation and environmental movements and their roles in affecting the use of soils, water, atmosphere, vegetation, wildlife, minerals, and other natural resources. Problems of renewable and nonrenewable resource management.

01:450:222. CULTURAL GEOGRAPHY (3)

Systematic introduction to cultural geography. Spatial analyses of peoples, languages, religions, folk and popular culture, and the varying impacts of cultures on environments.

01:450:240. CITIES (3)

Spatial organization and functioning of cities in different world regions. Emphasis on societal system factors that influence urban development.

01:450:262. GEOGRAPHIC BACKGROUND TO CURRENT WORLD AFFAIRS (3)

Contemporary global public issues from the perspective of changes in geographical relationships. Examination of major environmental, social, political, and economic trends that involve the restructuring of society and space at a variety of scales.

01:450:270,271. TOPICS IN GEOGRAPHY (1.5,1.5)

Addresses a subject that is most appropriately treated in an abbreviated format. Topics vary from term to term. Specific titles available at time of registration.

01:450:309. ECONOMIC GEOGRAPHY (3)

Pre- or corequisite: 01:450:103 or permission of instructor.

Spatial organization of economic activities; emphasis on economic globalization and urban and regional development.

01:450:311. NATURAL HAZARDS AND DISASTERS (3)

Human dimensions of selected types of extreme natural events (e.g., windstorms, earthquakes, floods, droughts) in developed and developing countries.

01:450:319. QUANTITATIVE METHODS (3)

Descriptive and inferential statistical methods useful in dealing with problems of areal association, spatial interaction, and other phenomena associated with geography.

01:450:320. SPATIAL DATA ANALYSIS (3)

Digital computers in management and analysis of multidimensional data. Introduction to user-oriented packages, including statistical routines, trend surface analysis, and factor analysis.

GEOGRAPHY

01:450:321. GEOGRAPHIC INFORMATION SYSTEMS (3)

Use of computers for management, analysis, and communication of spatial data. Geocoding, transformations, storage and representation, spatial statistics, data sources.

01:450:322. REMOTE SENSING (3)

Principles and techniques of satellite remote sensing. Application of satellite sensing to the study of Earth's land, oceans, and atmosphere.

01:450:323. GEOGRAPHIC INFORMATION SYSTEMS LABORATORY (1)

Corequisite: 01:450:321.

Coordinate systems, geographic data structures, error analysis, polygon overlay, digital elevation models, map comparison. Emphasis on applications.

01:450:330. GEOGRAPHICAL METHODS (3)

Prerequisites: 01:450:101, 102, 103; or permission of instructor.

Approaches to geographical problem solving. Defining geographical problems; seeking, organizing, and presenting spatial data; report writing.

01:450:331. NEW JERSEY (3)

Physical, historical, urban, and economic geography of the state.

01:450:332. NEWLY INDEPENDENT STATES AND EASTERN EUROPE (3)

Examines social, economic, and political dimensions of the region and the resulting geographical patterns.

01:450:334. WESTERN EUROPE (3)

Introduction to the Western European culture area. Its evolution; the features of the physical environment and their influence on human occupancy; demographic characteristics and diversity; regional development problems; quests for regional autonomy.

01:450:335. CARIBBEAN BORDERLANDS (3)

Regional analysis of basic human and physical differences affecting economic, political, and social conditions in the West Indies, Central America, and Mexico.

01:450:336. LATIN AMERICA (3)

Relative significance of natural and cultural environments in contributing to regional contrasts.

01:450:337. NORTH AMERICA (3)

Spatial distribution of population and economic activity in the United States and Canada. The forces stimulating changes in the regional patterns.

01:450:338. AFRICA (3)

Regional associations of tribal peoples and national states; analysis of resource endowment, economic development, and Africa's changing position in the world.

01:450:341. SOUTH ASIA AND THE MIDDLE EAST (3)

Geographic interpretation of the population, economy, and political integration of South Asia and the Middle East.

01:450:342. EAST ASIA (3)

Geographic interpretation of the population, economy, and political integration of the Orient.

01:450:355. PRINCIPLES OF CARTOGRAPHY (4)

Lec. 3 hrs., lab. by arrangement 3.6 hrs.

Theories and techniques of geographic data gathering, analysis, and map preparation. Special attention to problems of thematic map design and preparation.

01:450:356. ADVANCED CARTOGRAPHY (4)

Lec. 3 hrs., lab. by arrangement 3.6 hrs. Prerequisite: 01:450:355 or permission of instructor.

Study of psychophysical factors in map design, including experimenting with surface representation and topography. Photographic materials and methods applicable to graphic reproduction.

01:450:357. SPATIAL DATA REPRESENTATION AND DISPLAY (3)

Development of skills in design, use, and interpretation of computer cartographic systems. Problem solving and applications emphasis.

01:450:361. GENDER GEOGRAPHIES (3)

Links between gender relations and the spatial organization of society. Emphasis on the spatial division of labor, gendered places, women and development, geographies of safety and fear, and gendered political geographies.

01:450:363. GEOGRAPHY OF DEVELOPMENT (3)

Geographical patterns of development in third world areas and less developed parts of advanced capitalist countries. Emphasis on agrarian and industrial development and the restructuring of relations among different regions.

01:450:370. GLOBAL AND REGIONAL CLIMATE CHANGE (3)

Physical aspects and societal implications of climate change. Means of predicting and detecting change. Impacts on physical and human systems. Climate in the political arena; planning for the future.

01:450:380. MEDICAL GEOGRAPHY (3)

Geographical analysis applied to disease hazards, health status of populations, and health care delivery systems in selected physical and cultural environments.

01:450:402. FIELD GEOGRAPHY (4)

Lec. 1 hr., field trips. Prerequisites: 01:450:101, 102, 103, or permission of instructor.

Principles of geographic analysis of a local region; the uses of reconnaissance and survey, interviews, existing maps, and ground and aerial photographs in the compilation of information.

01:450:403,404. ADVANCED PHYSICAL GEOGRAPHY (3,3)

Prerequisite: 01:450:101 or permission of instructor.

Problems in the geography of landforms, climate, soils, and vegetation analyzed from the viewpoints of both pure and applied science.

01:450:405. POLITICAL GEOGRAPHY (3)

Basic principles of political geography and the application of these principles to selected areas around the world; causes of the political conflicts and methods used in their resolution.

01:450:406. ADVANCED TOPICS IN ECONOMIC GEOGRAPHY (3)

Prerequisite: 01:450:103 or permission of instructor.

Topics vary: causes and consequences of economic globalization; theories of urban and regional growth and decline; sustainability and sustainable development; industrial location.

01:450:408. PRACTICUM IN DIGITAL IMAGE PROCESSING OF REMOTELY SENSED DATA (1)

Pre- or corequisite: 01:450:322 or permission of instructor.

Applications of aerial photographs and of multispectral and satellite imagery in environmental management.

01:450:411. ADVANCED URBAN GEOGRAPHY (3)

Prerequisite: 01:450:240 or permission of instructor.

Theories of contemporary urban geography and their application to existing urban patterns.

01:450:417. COASTAL GEOMORPHOLOGY (3)

Prerequisite: 01:450:101 or 01:460:101 or permission of instructor.

Processes of erosion and deposition in coastal environments. Process-response models and problem-solving methods in coastal research.

01:450:419. ADVANCED CONSERVATION AND USE OF NATURAL RESOURCES (3)

Prerequisite: 01:450:211 or permission of instructor.

Problems, issues, and conflicts that affect the use of renewable and nonrenewable resources at different geographical scales.

01:450:470. HISTORY AND THEORY OF GEOGRAPHY (3)

Major historical themes, concepts, and theories of geography related to specific geographical changes in the real world; facilitates critical evaluation of the uses of geographic research.

01:450:485,486. INTERNSHIP IN GEOGRAPHY (BA,BA)

Open only to majors.

Application of geography skills in professional employment setting. Individually designed and evaluated experience under supervision of intern adviser.

01:450:487,488. CARTOGRAPHIC PROBLEMS (3,3)

Prerequisite: Permission of chairperson.

Study for students interested in special cartographic problems.

01:450:491,492. GEOGRAPHIC PROBLEMS (3,3)

Prerequisite: Permission of chairperson.

Study for students interested in special geographic problems.

01:450:495,496. HONORS PROJECT: GEOGRAPHY (BA,BA)**GEOLOGICAL SCIENCES 460**

Department of Geological Sciences, Faculty of Arts and Sciences

Web Site: <http://geology.rutgers.edu>

Chairperson: Kenneth G. Miller

Vice Chairperson: Carl C. Swisher III

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Michael J. Carr, A.B., M.A., Ph.D., Dartmouth College
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Claude T. Herzberg, B.S., Alberta; Ph.D., Edinburgh
Roger H. Hewins, B.Sc., Aberdeen; Ph.D., Toronto
Dennis V. Kent, B.S., CUNY (City College); Ph.D., Columbia
George R. McGhee, Jr., B.S., North Carolina State; M.S., North Carolina; Ph.D., Rochester
Kenneth G. Miller, A.B., Rutgers; Ph.D., Massachusetts Institute of Technology/Woods Hole Oceanographic Institution
Gregory S. Mountain, B.A., Brown; Ph.D., Columbia
Richard K. Olsson (Emeritus), B.S., M.S., Rutgers; M.A., Ph.D., Princeton
Peter A. Rona, A.B., Brown; Ph.D., Yale
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Associate Professors:

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Carl C. Swisher III, B.A., Montana; M.S., Nebraska; Ph.D., California (Berkeley)

Assistant Professor:

James D. Wright, B.S., Louisiana Tech; M.S., South Carolina; Ph.D., Columbia

Lecturer:

Ying-Fan Reinfelder, B.S., Beijing; M.S., Utah; Ph.D., Utah State

Research Professors:

Marie-Pierre Aubry, B.Sc., Université de Rouen; D.Sc., Université Pierre et Marie Curie (Paris)
Miriam E. Katz, B.S., St. Lawrence, Ph.D., Rutgers
Vadim Levin, B.S., Moscow, Ph.D., Columbia
Brent Turrin, B.S., Ph.D., California (Berkeley)

The study of geology includes time invariant processes following the laws of physical science, but it is tempered by the recognition that these processes occur in a complex framework, the result of previous geologic history. The need to understand both history and process makes geology inherently interdisciplinary. To allow maximum interdisciplinary study, the geological sciences major consists of two tracks. The geology track covers the core areas of geological sciences and still allows ample opportunity for students to specialize through additional courses in math and allied sciences. The environmental geology track covers the fundamentals of environmental and geological sciences and thereby provides the best opportunity for students whose interests span both disciplines.

Major Requirements**Geology Track**

In addition to the core courses listed below, students are encouraged to take additional courses in geology, mathematics, computer science, statistics, and the physical and biological sciences. Students planning professional careers in geology—including graduate study—should take at least two additional courses in mathematics beyond the requirements listed below and would benefit from a minor in mathematics, physics, chemistry, or biology. A faculty adviser, assigned by the departmental office at the time the student declares the major, recommends elective courses that best suit the student's career options.

Foundation Courses

01:160:161-162 General Chemistry (4,4)
01:160:171 Introduction to Experimentation (1)
01:460:101 Introductory Geology I: Physical (3)
01:460:102 Introductory Geology II: Historical (3)
01:460:103 Introductory Geology Laboratory (1)
01:640:CALC1-CALC2 Calculus (4,4)
01:750:193-194 Physics for the Sciences (4,4) or
01:750:201-202 Extended General Physics (5,5) or 01:750:203-204 General Physics (3,3) and 01:750:205-206 General Physics Laboratory (1,1)

Geological Sciences Core Courses

01:460:301 Mineralogy (4)
01:460:302 Petrology (4)
01:460:303 Paleontology (4)
01:460:307 Structural Geology (4)
01:460:340 Sedimentology (4)
01:460:341 Stratigraphy (4)
01:460:410 Field Geology (3)
01:460:412 Introduction to Geophysics (4)

Minor Requirements

The minor in geological sciences requires completion of 01:460:101 Introductory Geology I: Physical and 01:460:103 Introductory Geology Laboratory plus five additional geology courses of 3 credits or more, of which at least two must be at the 300 to 400 level. Minors are encouraged to use 01:460:330 and 331 to fulfill 300-level requirements.

Departmental Honors Program

Students may be admitted to candidacy for honors in geological sciences if they make written application to the department chairperson before the fall term of their senior year. To qualify, a student must have a minimum overall cumulative grade-point average of 3.0 and a minimum grade-point average in major courses of 3.4. In addition, the student must have completed all geological sciences core courses except 01:460:410 and 412. Honors students should complete successfully at least two additional 3-credit courses in geology (at the 400 level) and/or in the allied sciences as well as 01:460:495-496 Honors in Geology. In consultation with a faculty adviser, students choose an honors research project for which they write an honors paper and demonstrate their competence in an oral presentation.

Courses

01:460:101. INTRODUCTORY GEOLOGY I: PHYSICAL (3)

Geological concepts, principles, and processes. Chemistry and physics of the earth.

01:460:102. INTRODUCTORY GEOLOGY II: HISTORICAL (3)

Pre- or corequisite: 01:460:101. Designed for majors and minors. Credit not given for this course and 01:460:212.

Principles and concepts of plate tectonics and reconstructing past geography and environments; history of Earth's climate, environments, biogeochemical cycles, and life through time.

01:460:103. INTRODUCTORY GEOLOGY LABORATORY (1)

Pre- or corequisite: 01:460:101.

Development of geologic concepts and principles through experiments and field observations. Field trip fee may be required.

01:460:105. HONORS INTRODUCTORY GEOLOGY LABORATORY (2)

Lab. 6 hrs. Pre- or corequisite: 01:460:101.

Fundamentals of physical geology. Field observations and measurements of geologic processes and outcrops.

01:460:120. INTRODUCTION TO OCEANOGRAPHY

Credit not given for this course and 01:460:209.

Ongoing discoveries and developing knowledge including plate tectonics, the properties and motion of the ocean (waves, tides, and currents), ocean resources (food, energy, minerals), and related marine environmental issues that are changing our understanding of the way our planet works and that impact our lives.

01:460:201. EARTHQUAKES AND VOLCANOES (3)

Plate tectonics and the origin of earthquakes and volcanoes: causes, mechanisms, consequences, and effect on humans.

01:460:202. ENVIRONMENTAL GEOLOGY (3)

Analyses of issues and case studies related to cleaning up the environment, finding and using resources, predicting and mitigating natural disasters, and understanding global change.

01:460:204. THE WATER PLANET (3)

Characteristics of water: hydrologic cycle; runoff and erosion; river systems; past and present climates. Environmental impact; resources of water; political and economic aspects of water.

01:460:205. EVOLUTION AND GEOLOGIC TIME (3)

Prerequisite: 01:460:101.

Major events in the evolution of life on earth; evolutionary pattern and process through geologic time; relationship of macro- and microevolutionary theory.

01:460:206. DINOSAURS (3)

Survey of dinosaurian evolution and diversity. Discovery and collection; reconstruction of anatomy, behavior, physiology, and habits; origin, evolutionary radiation, and extinction.

01:460:207. NATURAL RESOURCES AND THEIR EXPLOITATION (3)

Geologic setting and origin of natural resources. Location and exploitation of oil and gas, coal, nuclear, geothermal, metallic and nonmetallic deposits.

01:460:208. THE LAST 11,000 YEARS (3)

Geologic events since the last ice age. Sea-level changes, volcanism, earthquakes, climatic change, erosional and depositional effects. Ancient record of events, myths.

01:460:209. EXPLORATION OF THE OCEANS (3)

Credit not given for this course and 01:460:120 or 11:628:120.

Geological and geophysical exploration techniques; deep sea drilling; continental shelves; deep ocean basins; plate tectonics; coral reefs; offshore petroleum exploration; marine archaeological discoveries; *Monitor*, *Titanic*.

01:460:212. EARTH AND LIFE THROUGH TIME (3)

Designed for nonmajors. Credit not given for both this course and 01:460:102.

Relationship between the development of continents and oceans, changes in sedimentary environments, and the evolution of life through time.

01:460:224. GEOLOGY OF THE MOONS AND PLANETS (3)

Origin, composition, and evolution of the solar system, meteorites, comets, asteroids, Moon, Mercury, Venus, Mars, Jupiter, Io, Europa, Ganymede, Callisto, Saturn and its satellites, Uranus, and Neptune.

01:460:301. MINERALOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisites: 01:160:161-162. Pre- or corequisite: 01:460:103. Credit not given for both this course and 01:460:331.

Introduction to crystallography, optics and crystal chemistry, systematics of rock-forming minerals. Laboratory: crystal chemical calculations, minerals in hand specimen and thin section.

01:460:302. PETROLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisite: 01:460:301. Credit not given for both this course and 01:460:331.

Description, geological setting, and origin of igneous and metamorphic rocks. Laboratory: hand specimens and thin sections of igneous and metamorphic rocks.

01:460:303. PALEONTOLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisite: 01:460:101.

Principles of paleontology. Classification, relationships, and evolutionary history of invertebrate fossils. Laboratory study of morphology of invertebrates.

01:460:307. STRUCTURAL GEOLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisites: 01:460:101 and 103. Recommended pre- or corequisite: CALC2.

Geometry and origin of brittle and ductile structures; strain, stress, and rheology; deformation mechanisms; introduction to tectonics and regional structural geology.

01:460:330. SEDIMENTARY GEOLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisite: 01:460:101. Credit not given for both this course and 01:460:340 or 341.

Interpretation of sedimentary rocks; their relation to depositional environment and processes. Analysis of sedimentary sequences in time and space. Principles of correlation.

01:460:331. FUNDAMENTALS OF MINERALOGY AND PETROLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisite: 01:460:101. Credit not given for both this course and 01:460:301 or 302.

Systematics of rock-forming minerals. Description, geologic setting, and origin of igneous and metamorphic rocks.

01:460:340. SEDIMENTOLOGY (4)

Lec. 3 hrs., lab. 3 hrs., field trips. Prerequisite: 01:460:101. Pre- or corequisite: 01:460:330. Credit not given for both this course and 01:460:330.

The origin of sediments and sedimentary rocks, with emphasis on processes in recent sedimentary environments and their ancient analogs.

01:460:341. STRATIGRAPHY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisite: 01:460:340. Credit not given for both this course and 01:460:330.

Analysis of sedimentary rocks of earth's crust; their distribution in time and space; principles of correlation. Seismic interpretation of reflection records.

01:460:355,356. GEOLOGY COLLOQUIUM (1,1)

Lec. and discussions 1 hr. For geological sciences majors only. Current research in geological sciences.

01:460:394. MICROSTRATIGRAPHIC ANALYSIS IN ARCHAEOLOGY (3)

Pre- or corequisite: 01:460:340. Credit not given for both this course and 01:070:394.

Field and laboratory studies of geological context in archaeological sites. Data collection and sampling, sediment analysis, and reporting. Interpretation of depositional and postdepositional features.

01:460:396. GEOCHRONOLOGY IN GEOSCIENCES AND ANTHROPOLOGY (3)

Prerequisite: 01:460:101.

Isotopic, astronomical, and paleomagnetic dating techniques in geology and anthropology.

01:460:401. INTRODUCTION TO GEOCHEMISTRY (4)

Prerequisite: 01:460:301.

Application of chemical principles and techniques to geologic problems. Geochemical structure of the earth, element distribution, Eh-ph diagrams, and phase-equilibrium diagrams.

01:460:402. ORE DEPOSITS (3)

Prerequisite: 01:460:302.

Geochemistry, mineralogy, and origin of ore deposits. Physical-chemical, ore-forming processes and their relation to geologic environment.

01:460:408. GEOMORPHOLOGY (3)

Lec. 3 hrs. Prerequisite: 01:460:101 or equivalent.

Application of earth system science to understanding the evolution of landforms and landscapes on the Earth's surface.

01:460:410. FIELD GEOLOGY (3)

Lec. 1 hr., lab. 6 hrs. Prerequisites: 01:460:307 and 330 or 341 or permission of instructor. Statistics field requirement.

Methodology of field investigations: pace and compass, aerial photo and topographic mapping; construction of geological maps and cross sections; interpretations of seismic profiles; preparation of written reports.

01:460:411. GEOLOGICAL FIELD METHODS (2)

Pre- or corequisites: 01:460:307 and 330 or 341. Course does not satisfy the field requirement.

Introduction to geological mapping and related field investigations; surveying methods; construction of geological maps, stratigraphic sections and cross sections; interpretation of seismic reflection profiles; computer applications; preparation of written reports.

01:460:412. INTRODUCTION TO GEOPHYSICS (4)

Lec. 3 hrs., lab. 3 hrs. Pre- or corequisites: 01:460:101 and 01:750:204 or permission of instructor.

Principles of seismic exploration, refraction, reflection, deep earth seismology, gravity, magnetics, electrical surveys, heat flow. Application of geophysical techniques to the study of the subsurface.

01:460:417. ENVIRONMENTAL GEOCHEMISTRY (3)

Pre- or corequisites: 01:160:162, 01:460:101.

Distribution of elements in the sedimentary environment; behavior of trace metals in sediments and waters.

01:460:418. GEOLOGICAL MODELING (3)

Pre- or corequisite: 01:460:301 or 303 or 340.

Computer techniques for collection, processing, interpretation, and presentation of geological and geophysical data. Computer-based modeling exercises in geologic and geophysical exploration and environment assessment.

01:460:428. HYDROGEOLOGY (3)

Prerequisites: 01:460:101, 01:640:136 or 152.

Groundwater flow, Darcy's Law, hydraulic conductivity and permeability, aquifers, storage, recharge, infiltration, and flow nets.

01:460:429. TECTONICS AND REGIONAL STRUCTURAL GEOLOGY (3)

Prerequisite: 01:460:307.

Theories of tectonics, regional tectonostratigraphic analysis, development of the earth's Phanerozoic orogens.

01:460:434. THE QUATERNARY PERIOD (3)

Lec. 3 hrs., field trips. Prerequisite: 01:460:101 or equivalent.

Explores the history of Earth over the last two million years during times of global climate change, sea level fluctuations, migrations of plant and animal communities, extinctions, and evolution of humans.

01:460:451. MARINE GEOLOGY (3)

Prerequisite: 01:460:341.

Structure and oceanographic setting, marine sediments, evolution of ocean basins and margins.

01:460:453. PALEOECOLOGY (3)

Prerequisites: 01:460:303 and 341, or permission of instructor.

Evolution in an ecological context: analysis of ancient living systems; evolution of marine ecosystems in geologic time.

01:460:454. MICROPALAEONTOLOGY (3)

Studies of foraminifera, calcareous nannoplankton, and siliceous microplankton emphasizing stratigraphic, paleoecologic, and paleoceanographic utility.

01:460:476. HISTORY OF THE EARTH SYSTEM (3)

Pre- or corequisites: any three of 01:119:102, 01:160:162, 01:460:101, 01:750:204, or permission of instructor.

Earth as an evolving physical/biological system, including physical and biogeochemical processes whose interactions have shaped Earth's environment over geologic time.

01:460:493,494. INDEPENDENT STUDIES IN GEOLOGY (3,3)

Prerequisites: Minimum 3.0 cumulative and geology grade-point averages.

Adviser's approval required for registration.

Topic of study chosen in consultation with a faculty adviser.

01:460:495-496. HONORS IN GEOLOGY (3,3)

Both terms must be completed to receive credit. See section on departmental honors program for registration requirements.

Research project chosen in consultation with a faculty adviser.

GERMAN 470

Department of Germanic, Russian, and East European Languages and Literatures, Faculty of Arts and Sciences

Web Site: <http://german.rutgers.edu>

Chairperson: William C. Donahue

Undergraduate Director: Nicholas Rennie

GERMAN

Professor:

Marlene Ciklamini, B.A., Rutgers; M.A., Ph.D., Yale

Associate Professors:

Carol Avins, B.A., Pennsylvania; Ph.D., Yale

William C. Donahue, B.S.F.S., Georgetown; M.A., Middlebury; Ph.D., Harvard

Martha B. Helfer, B.A., Washington (St. Louis); M.A., Wisconsin (Madison);

Ph.D., Stanford

Gerald Pirog, B.A., Rutgers; M.Phil., Ph.D., Yale

Assistant Professors:

Fatima Naqvi, B.A., Dartmouth; M.A., Ph.D., Harvard

Nicholas Rennie, B.A., Princeton; Ph.D., Yale

Part-Time Lecturers:

James DeAngelo, B.A., Boston College; Ed.M., St. Peter's College

Ute Dine, B.A., Rider; M.A., Rutgers

Kenneth Kuhn, B.A., Coe; Ed.M., Rutgers

Silke Wehner-Franco, Ph.D., Münster

Major Requirements

The department offers two options for completing the major. The option in language and literature trains students to attain linguistic proficiency and a broad knowledge of German literature and culture. The German studies option also enables students to broaden and deepen their interests in another academic field. Credits with a grade of *D* are not counted toward the major. Credit toward the major for work conducted in the German language at the 300-level or higher may be earned only after successful completion of 01:470:232 or the equivalent.

Language and Literature Option

The major comprises 10 term courses, as approved by the department, at the 200 level or above and taught in German. At least half of these courses should be in literature, civilization, or film. A minimum of six term courses must be taken at the 300 level or above. Six of the courses comprising the major must be taught by the Faculty of Arts and Sciences.

German Studies Option

This option can be fulfilled either by taking most courses within the Department of German, or by combining the study of German language and culture with other fields (such as history, art history, religion, philosophy, music), which offer courses with a substantial German content. Twelve 3-credit courses are required, to be distributed in the following manner: a set of core courses in German language, culture, and history, plus a coherent set of an additional five courses to be selected from the German studies course list available at the department's web site with the approval of the German studies adviser. Courses not included in the German studies course list may be considered toward the major at the discretion of the undergraduate director and the participating department.

All German studies majors must complete the equivalent of 01:470:232 Advanced Conversation and Composition II, one course (conducted in German) on contemporary German culture, and one additional 300- or 400-level course offered by the German program in either German or English. All majors take two courses in German history. Additional courses may be considered toward the major at the discretion of the undergraduate director and the participating department.

Minor Requirements

Language and Literature Option

The minor in German language and literature consists of six courses, as approved by the department, at the 200 level or above and taught in German. For students beginning their college German below the 200 level, one course in intermediate German may be counted toward the minor. At least three of the six courses must be taken at the 300 level or above.

Credits in German with a grade of *D* are not counted toward the minor. Credit toward the minor for work conducted in the German language at the 300-level or higher may be earned only after successful completion of 01:470:232 or the equivalent.

German Studies Option

The minor in German studies consists of six courses at the 200 level or above and taken either within the Department of German or selected from the German studies course list with the approval of the German studies adviser. All German studies minors must complete the equivalent of 01:470:232 Advanced Conversation and Composition II. At least three of the six courses must be taken at the 300 level or above, either in German or English.

Credits with a grade of *D* are not counted toward the minor. Credit toward the minor for work conducted in the German language at the 300 level or higher may be earned only after successful completion of 01:470:232 or the equivalent.

Departmental Honors Program

Language and Literature Option

To be a candidate for graduation with honors, a German major must have and maintain a grade-point average of 3.4 or better in German and a cumulative grade-point average of 3.0 or better. Interested students are encouraged to apply at the department toward the end of their junior year or during the first week of classes in their senior year. A student may receive honors in any of five ways: by completing a senior honors thesis through his or her respective undergraduate college honors program (this thesis should be submitted to a faculty member in German to be read and approved for credit); or by taking 6 credits of 01:470:495, 496 (in any of the following credit sequences: 3-3, 6-0, 0-6); or by taking 3 credits of 01:470:495 or 496 and 3 credits of 01:470:491; or by taking 6 credits of approved graduate courses; or by taking any combination of the above courses totaling 6 credits. Whether a candidate graduates with departmental honors depends on his or her total performance in German as measured by the recommendations of the faculty.

German Studies Option

Students with an overall grade-point average of 3.0 or better, and 3.4 or better in German studies, will be invited to enroll in the German studies honors courses. Under the supervision of a faculty adviser, honor students will pursue an independent research project that requires the use of German-language source material pertinent to the area of concentration and may earn up to 6 credits toward the German studies major.

Summer Program in Germany

The Department of Germanic, Russian, and East European Languages and Literatures offers a summer program in Berlin, Germany. This program, which lasts six weeks and is taught by faculty from Rutgers and the Free University of Berlin, offers an opportunity to earn 6 credits in a German university setting. The program also provides excursions and other extracurricular activities to acquaint participants more fully with the cultural life of Germany and its capital. Offerings in German include language, literature, and culture courses at the elementary, intermediate, and upper levels. Inquiries should be addressed to the Department of Germanic, Russian, and East European Languages and Literatures or to Global Programs.

Study Abroad Program in Germany

Language and Literature Option

The Faculty of Arts and Sciences offers a program of junior-year studies at the Free University of Berlin in Germany. Under the guidance of a resident director, students attend preliminary four-week intensive language sessions and then, in the course of the academic year, participate fully in the life of the university. Admission is open to majors in all disciplines. A working knowledge of the language (01:470:232 or equivalent) is necessary since courses are conducted entirely in German. Interested students should apply early in the second term of their sophomore year by contacting the department or the Rutgers Study Abroad Program office in Milledoler Hall, College Avenue campus.

German Studies Option

All majors are strongly encouraged to spend at least one term abroad at a German university, ideally as a participant in the Rutgers program in Constance. Up to 18 credits may be credited toward the major, but no more than 9 credits per term abroad. Actual transfer decisions will be made by the German studies adviser, and students studying in Germany are advised to remain in close contact. The German studies senior honors thesis option must be taken in New Brunswick.

Certificate of Proficiency in German

The department awards a certificate of proficiency in German based on demonstrated ability to comprehend, speak, read, and write German as attested by a grade of *B* or better in 6 credits of work taken in courses conducted in German at or above the 300 level.

Note: The German certificate is awarded only with, or subsequent to, the awarding of the baccalaureate degree in an approved major.

Diploma in German Commerce

The department is one of the national testing centers for the examination leading to the *Wirtschaftsdiplom Deutsch als Fremdsprache*, underwritten by the German-American Chamber of Commerce. It is strongly recommended that students wishing to take this examination complete 01:470:313, 314 Business German I and II, 01:470:315 Advanced Translation Seminar I, as well as 01:470:301,302 German Stylistics.

Goethe Institute's *Zertifikat Deutsch*

In cooperation with the department, the Goethe Institute (the international cultural agency of the Federal Republic of Germany) administers its examinations for the *Zertifikat Deutsch als Fremdsprache* each spring.

German Residence Hall

Leupp Hall German special interest housing on the College Avenue campus helps students facilitate fluency in the spoken language and become acquainted with the culture and customs of Germany amid congenial surroundings. Residents are required to take the 1.5-credit course 01:470:299 Contemporary German Media and Society (which may be repeated, and is open to other students as well).

Courses in English

01:470:255. THE FAUST LEGEND THROUGH THE AGES (3)

Relevance of the Faust theme to Western civilization from biblical days to the present, with emphasis on Goethe's *Faust*.

01:470:261,262. MAJOR GERMAN WRITERS (3,3)

Selected masterpieces of German literature from the Middle Ages to the present.

01:470:275. GERMAN STUDIES SEMINAR (3)

Required for all German studies majors; should be taken in the sophomore or junior year, to be taught in English.

Survey of topics, theoretical approaches, and research methods in German studies. Interdisciplinary examination of 20th-century German culture.

01:470:349. CONTEMPORARY GERMAN CINEMA (3)

One section taught in German.

New German cinema as a contemporary mode of artistic expression. Viewing and analysis of films by such outstanding directors as Fassbinder, Herzog, Schloendorff, and Wenders. Emphasis on the "literary" aspects of the German cinema.

01:470:350. THE NAZI PERIOD IN FILM (3)

One section taught in German.

Feature and documentary films dealing with the cultural, historical, and political development of Germany from 1933 to 1945 and its global implications.

01:470:365,366. LITERATURE AND SOCIAL CHANGE FROM NIETZSCHE TO BRECHT (3,3)

Interaction between German literature and society from the unification (1871) and industrialization of Germany to the end of World War II.

01:470:367. SELF AND SOCIETY IN THE POSTWAR GERMAN NOVEL AND SHORT STORY (3)

Major prose writers of Austria, Germany, and Switzerland since the end of World War II.

01:470:368. SELF AND SOCIETY IN THE POSTWAR GERMAN DRAMA (3)

Major playwrights of Austria, Germany, and Switzerland since the end of World War II.

01:470:373. BERTOLT BRECHT, DRAMATIST AND MARXIST (3)

Study of Brecht's Epic (Marxist) Theater and its impact on contemporary dramatic theory and theatrical practice; an introduction to Brecht's poetry of engagement.

01:470:375. NEW SUBJECTIVITY IN LITERATURE AND FILM (3)

Literature and film in the context of political, social, and cultural developments since the late 1960s. Topics include the politics of the personal, reconciliation with the Nazi past, the “death of literature,” and the rise of German feminism.

01:470:380. GERMAN-JEWISH LITERATURE AND CULTURE (3)

Special permission required for credit toward major. Credit not given for both this course and 01:563:380.

Survey of German-Jewish culture, 18th century to present. Literature in political-historical context, with some attention to music, philosophy, and film.

01:470:381. CULTURAL FOUNDATIONS OF GERMANY (3)

Significant aspects of German civilization from the Age of Charlemagne to the unification of Germany in 1870. Focus on the German contribution to music, the arts, the sciences, philosophy, and literature.

01:470:383. GERMANIC MYTHOLOGY (3)

Myths and religious practices of the migration period and the age of the Vikings. Sources: the Eddas, Christian and pre-Christian documents and texts, archaeological finds, place names, modern folkloristic beliefs.

01:470:384. YIDDISH LITERATURE FROM TRADITION TO ENLIGHTENMENT (3)

Prerequisites: 01:563:202, 260, or permission of instructor. Credit not given for both this course and 01:563:384 or 01:988:391.

Traces the cultural dynamics of Ashkenazic Jews in 16th- to 19th-century Europe through Yiddish religious writing, folktales, fiction, memoirs, and poetry. All readings in translation.

01:470:385. THE CHANGING IMAGE OF WOMEN IN GERMAN LITERATURE (3)

Selected works of German literature that convey the experience of women cast into socially prescribed roles.

01:470:387,388,389,390. TOPICS IN GERMAN LITERATURE AND CIVILIZATION (1.5,1.5,3,3)**Courses in German****Prerequisites**

For courses numbered in the 200 series: any two courses between 01:470:131 and 136, or the permission of the department. For courses numbered in the 300 series: any two of 01:470:231, 232, 241, 242, 293, 294, or the permission of the department.

Introductory Courses

Beginners or students with less than two years of German in secondary school normally take courses 01:470:101-102, and then 131-132. Students who have had two or more years of German in secondary school and who wish to continue this language are assigned according to their achievement on a placement test. Students who wish to complete the equivalent of 101-102, 131-132 within one year may do so by taking Accelerated Beginning German (111-112; 6 credits per term). Courses 01:470:101-102 and 105-106 are conducted partly in German. All other courses, with the exception of literature, culture, and film courses in English translation, are conducted entirely in German.

01:470:101-102. ELEMENTARY GERMAN (4,4)

Not open for credit to students who have had two or more years of secondary school German.

Basic skills of listening, speaking, reading, and writing; study of grammar and vocabulary building; supplementary work in the language laboratory.

01:470:105,106. GERMAN FOR READING KNOWLEDGE (3,3)

Not open for credit to students who have had two or more years of secondary school German. Does not satisfy prerequisite for 01:470:131 or 132.

Development of reading skills for students who wish to acquire a basic competence in the language for research purposes. Texts chosen from the humanities, the natural sciences, and the social sciences.

01:470:107-108. ELEMENTARY GERMAN IN GERMANY (3,3)

Offered only as part of the summer program in Germany. Credit not given for these courses and 01:470:101-102.

Development of basic skills in speaking, understanding, reading, and writing. Utilization of Lake Constance region and its culture as resource material. Excursions.

01:470:111-112. ACCELERATED BEGINNING GERMAN (6,6)

Four meetings per week for 6 credits.

Accelerated development of reading, writing oral, and oral skills; preparation for the *Zertifikat Deutsch* and 200-level courses within one year.

01:470:121-122. GERMAN IN REVIEW (3,3)

Not open to students who have taken 01:470:102.

Intermediate reinforcement course. Practice in speaking, reading, and writing German; extensive grammar review; cultural topics.

01:470:131-132. INTERMEDIATE GERMAN (3,3)

Prerequisite: 01:470:102 or placement test.

Emphasis on conversation and composition, based on everyday situations, aspects of culture, and contemporary German short stories; review of major grammatical points.

01:470:135,136. GERMAN CONVERSATION AND COMPOSITION (3,3)

Offered only as part of the summer program in Germany.

Intermediate language course emphasizing both colloquial and literary German. Utilization of the Lake Constance region and its culture as resource material. Excursions.

01:470:211,212. GERMAN CONVERSATION AND CULTURE (3,3)

Proficiency-oriented with strong emphasis on speaking skills. Extensive use of audiovisual material and guided conversation practice; texts and discussion topics relating to everyday life, current events, and contemporary issues in the German-speaking community.

01:470:231-232. ADVANCED CONVERSATION AND COMPOSITION (3,3)

Reading and discussion of advanced text material based on contemporary German culture. Intensive practice in word formation, sentence structure, and expository writing.

01:470:241,242. INTRODUCTION TO GERMAN LITERATURE (3,3)

Critical appreciation of German literature through the study of selections of prose fiction, drama, and poetry, and the culture of the periods in which they were written.

06:090:281,282. THE GERMAN LANGUAGE EXPERIENCE (P/NC 1.5, P/NC 1.5)

Limited to and required of residents of the Douglass College German House.

May not be used in satisfaction of major requirements. Course may be repeated.

Development of active language skills through formal instruction and the daily experience of foreign language immersion in the varied activities of the house.

01:470:293,294. INDEPENDENT STUDY IN GERMAN (3,3)

Offered only as part of the summer program in Germany. Prerequisite:

Permission of the director of the summer program in Germany.

For students wishing to pursue an individualized project in German language, literature, or civilization under the guidance of a member of the department.

01:470:299. CONTEMPORARY GERMAN MEDIA AND SOCIETY (1.5)

Required of residents of Leupp Hall German special interest housing. Course open to other students and may be repeated.

Development of active language skills through study of the role of various media (including print, Internet, film, and the other arts) in informing contemporary German politics and society. Special attention to cultural differences between Germany and the United States. Texts and presentations chosen to accommodate level of students enrolled. In German. All levels of language ability welcome, including beginners.

01:470:301,302. GERMAN STYLISTICS (3,3)

Fine points of grammar. Analysis of various modes of expression. Study of writing techniques. Written assignments to practice specific styles, especially expository and argumentative.

01:470:313. BUSINESS GERMAN I (3)

Prerequisite: 01:470:232 or equivalent.

Development of effective communication models with emphasis on the terminology of economics. Treatment of basic principles governing commercial organizations in the German-speaking countries.

01:470:314. BUSINESS GERMAN II (3)

Prerequisite: 01:470:313 or permission of instructor.

Continuation of 01:470:313 with emphasis on the terminology of international commerce and the development of specialized language skills for diverse business situations. Contrastive treatment of cultural factors affecting German-American trade relations.

01:470:315. ADVANCED TRANSLATION SEMINAR I (3)

Methodology and techniques of translating German-English and English-German. Texts are drawn from a variety of fields, with special attention to stylistic, syntactic, and semantic divergences between the two languages and the latest developments in computer-generated translations.

01:470:316. ADVANCED TRANSLATION SEMINAR II (3)

Methodology and techniques of translating German-English and English-German. Texts are drawn from a variety of fields, with special attention to stylistic, syntactic, and semantic divergences between the two languages and the latest developments in computer-generated translations.

05:300:320. MATERIALS AND METHODS IN GERMAN (3)

Only for students in the German teaching program; others by permission of instructor. May count as education credit but not toward the major in German. Practical solutions to classroom problems; course planning; teaching aims, pedagogical devices, language content, cultural background, selection of texts.

01:470:321. FUNDAMENTALS OF LITERARY ANALYSIS (3)

Introduction to textual categories, literary terminology, and methodological problems through the analysis and interpretation of representative works of literature.

01:470:323. MASTERS OF GERMAN POETRY (3)

Readings from such poets as Walther von der Vogelweide, Gryphius, Klopstock, Goethe, Schiller, the romantics, Heine, George, Hofmannsthal, Rilke, Benn, and Brecht.

01:470:324. MASTERS OF GERMAN DRAMA (3)

Study of the drama through readings from such playwrights as Lessing, Goethe, Schiller, Kleist, Grillparzer, Büchner, Hebbel, Hauptmann, Kaiser, Brecht, and Dürrenmatt.

01:470:325. THE SHORT NARRATIVE: 16TH CENTURY TO 20TH CENTURY (3)

Studies in short genres of German prose such as the anecdote, farce, fable, novella, and short story.

01:470:326. THE GERMAN FAIRY TALE AND FOLK TRADITION (3)

Studies in the German fairy tale, legend, and folk song; principal characteristics and cultural contexts.

01:470:331. GERMAN LITERATURE OF THE MIDDLE AGES (3)

The first "Golden Age" of German literature (1175–1225) in modern adaptation. Readings from such epics as the *Nibelungenlied*, *Tristan*, and *Parzival*, as well as the poetry of the minnesingers.

01:470:332. GERMAN LITERATURE OF THE RENAISSANCE, REFORMATION, AND BAROQUE (3)

German literature from about 1400 to 1700, with emphasis on the following writers: Hutten, Luther, Hans Sachs, Fischart, Opitz, Gryphius, and Grimmelshausen.

01:470:333. GERMAN LITERATURE OF THE ENLIGHTENMENT, ROCOCO, AND STORM AND STRESS (3)

Major authors of the 18th century, including Klopstock, Lessing, Herder, the early Goethe, and Schiller.

01:470:335. GOETHE: LIFE AND WORKS (3)

Close reading of Goethe's works against the cultural, historical, and political background of his time. Selected poems, plays, and prose.

01:470:337. SCHILLER: LIFE AND WORKS (3)

Close reading of Schiller's works against the cultural, historical, and political background of his time. Selected poems, plays, and prose.

01:470:341. GERMAN CIVILIZATION I: 5TH THROUGH 15TH CENTURIES (3)

Cultural foundations of the German-speaking areas of central Europe from the fall of Rome to the waning of the Middle Ages. Readings from historical, didactic, and poetic documents, supplemented by slides and recorded music.

01:470:342. GERMAN CIVILIZATION II: 16TH THROUGH 18TH CENTURIES (3)

Cultural foundations of the Holy Roman Empire of the German nation from the age of Luther to the Napoleonic era. Readings from historical, didactic, and poetic documents, supplemented by slides and recorded music.

01:470:343. GERMAN CULTURE TODAY (3)

Contemporary cultural, social, and political life in German-speaking countries with emphasis on the daily experience. Audiovisuals, guest lectures, field trips, and contact with resource persons.

01:470:345,346. GERMAN LITERATURE AND CIVILIZATION (3,3)

Offered only as part of the summer program in Germany.

Interpretation and analysis of major works of German literature as cultural phenomena, with special reference to the art monuments of the Lake Constance region. Field trips to key sites in Austria, France (Alsace), Germany, and Switzerland.

01:470:347. GERMAN POLITICS AND SOCIETY: GERMANY 1871–1945 (3)

Overview of significant political, historical, and social trends which shaped modern Germany in its early years from the Franco-Prussian War to the end of World War II.

01:470:348. GERMAN POLITICS AND SOCIETY: GERMANY 1945 TO THE PRESENT (3)

Introduction to major political, historical, and social trends which have shaped German society, both east and west, from the end of the World War II to the present.

01:470:349. CONTEMPORARY GERMAN CINEMA (3)

One section taught in German.

See description under Courses in English.

GREEK, MODERN GREEK STUDIES

01:470:350. THE NAZI PERIOD IN FILM (3)

One section taught in German.

See description under Courses in English.

01:470:364. BIG BANG: THE LITERATURE OF CHAOS AND ORDER (3)

Credit not given for both this course and 01:195:371.

Representations of dramatic upheavals in the physical universe as analogies for crisis and revolution in history, politics, psychology, science, and the arts. In literature and philosophy from the Renaissance to the present.

01:470:385,386. JUNIOR YEAR IN GERMANY (BA,BA)

01:470:391,392. TOPICS IN GERMAN LITERATURE AND CIVILIZATION (3,3)

01:470:393,394. INDEPENDENT STUDY IN GERMAN (1-3,1-3)

Prerequisites: Permission of instructor and departmental chairperson.

For students of exceptional promise wishing to pursue an individualized project in German literature, civilization, or language under the guidance of a member of the department.

01:470:395,396. GERMAN TEACHING APPRENTICESHIP (3,3)

Prerequisite: Permission of instructor.

Development of various projects relevant to language teaching, e.g., preparing new teaching devices, conducting conversational groups, and tutoring.

01:470:431. GERMAN LITERATURE OF THE 19TH CENTURY: ROMANTICISM (3)

Romantic period from Wackenroder to Eichendorff (1790–1850), including Tieck, Novalis, Hoffmann, A.W. and F. Schlegel, Hölderlin, Kleist, and Brentano. Readings of theoretical and poetic texts.

01:470:432. GERMAN LITERATURE OF THE 19TH CENTURY: REALISM (3)

Study of realistic literature from its beginnings (Hebbel, Grillparzer, Heine, Büchner, *Junges Deutschland*, and *Vormärz*) to the end of the century (Fontane, Raabe, Hauptmann). Readings of theoretical and poetic texts.

01:470:435. GERMAN LITERATURE OF THE 20TH CENTURY BEFORE 1945 (3)

Major literary movements and figures from the turn of the century to the end of World War II, including naturalism (Hauptmann), impressionism (Schnitzler), symbolism (Rilke), expressionism (Kaiser, Trakl), neo-factualism (Zuckmayer), the outsiders (Wedekind, Hesse, Kafka), and the anti-Nazi writers in exile (Mann, Brecht).

01:470:436. GERMAN LITERATURE OF THE 20TH CENTURY AFTER 1945 (3)

Literary trends and currents from the end of World War II to the present: the “literature of the ruins” (Borchert, Böll); documentary theater (Weiss, Hochhuth); Brecht’s Epic Theater and East Germany; major novelists (Böll, Frisch, Grass, Wolf) and playwrights (Dürrenmatt, Handke).

01:470:441. GERMAN CIVILIZATION III: THE 19TH CENTURY (3)

Cultural foundations of Germany from the abolition of the First Reich by Napoleon in 1806 to the end of the Second Reich in 1918. Readings from historical, didactic, and poetic documents, supplemented by slides and recorded music.

01:470:444. MASTERS OF GERMAN SATIRE (3)

Satirical features and strategies in literary and visual texts from late medieval carnival plays to postmodern cabaret.

01:470:450. READING WOMEN’S LIVES: 20TH-CENTURY NARRATIVES (3)

Prerequisite: A 300-level course in German or permission of instructor.

Twentieth-century women’s literature and film; historical retrospective and methodological introduction prepare for treatment of preeminent postwar texts.

01:470:460. VOICES OF A CENTURY: 20TH-CENTURY AUTOBIOGRAPHY AND CULTURE (3)

Prerequisite: A 300-level course in German or permission of instructor.

Masterpieces of 20th-century autobiography read in a social, political, and philosophical context.

01:470:491,492. SENIOR SEMINAR IN GERMAN LITERATURE (3,3)

Analysis and interpretation of selected works of German literature with emphasis on various literary genres; discussions, oral and written reports.

01:470:493,494. INDEPENDENT STUDY IN GERMAN (3,3)

Prerequisites: Permission of instructor and departmental chairperson.

For students of exceptional promise wishing to pursue an individualized project in German literature or civilization under the guidance of a member of the department.

01:470:495,496. SENIOR HONORS IN GERMAN (3-6,3-6)

Independent research on a topic selected by the senior and approved by a departmental honors committee; carried out under the guidance of a member of the department.

GERONTOLOGY (See Aging 018)

GREEK 490 (See Classics)

GREEK, MODERN GREEK STUDIES 489

Faculty of Arts and Sciences

Web Site: <http://moderngreek-studies.rutgers.edu>

Undergraduate Director: Tia Kolbaba

Minor in Modern Greek

Students must complete six courses (18 credits). Three courses (9 credits) must be at the 300 level or above. The following courses are required for and count toward the minor: 01:489:201,202 or the equivalent.

An additional four courses, three at the 300 level or above, from the following:

- 01:489:205 Byzantium: The Imperial Age (3)
- 01:489:207 Byzantium: The Last Centuries (3)
- 01:489:241 Masterpieces in Modern Greek Literature (3)
- 01:489:305,306 Introduction to Modern Greek Literature (3,3)
- 01:489:312 Greek Christianity (3)
- 01:489:347 The Life and Works of Odysseus Elytis (3)
- 01:489:351 The Iconoclastic Controversy: Causes and Effects (726–843 C.E.) (3)
- 01:489:358 Odysseus: From Homer to Kazantzakis (3)
- 01:489:380 Special Topics in Modern Greek Studies (3)
- 01:489:381 Modern Greek Politics and Society (3)
- 01:489:382 Genesis of Modern Greece: 1450–1830 (3)
- 01:489:383 The Life and Works of Nikos Kazantzakis (1885–1957) (3)

Courses in Greek

01:489:101,102. FIRST-YEAR MODERN GREEK (4,4)

Fundamentals of the language with exercises in speaking, reading, and writing.

01:489:201,202. SECOND-YEAR MODERN GREEK (4,4)

Prerequisite: 01:489:102 or permission of the discipline adviser.

Development of language skills, emphasis on speaking, translation drills, and grammar.

01:489:245. ADVANCED GRAMMAR AND COMPOSITION (3)

Prerequisite: 01:489:202 or permission of instructor.

Introduction to themes in the Hellenic tradition, particularly through readings in modern Greek literature. Development of facility and accuracy in oral expression and listening comprehension.

01:489:305,306. INTRODUCTION TO MODERN GREEK LITERATURE (3,3)

Prerequisite: 01:489:202 or permission of the discipline adviser.

Introduction to modern Greek literature from the medieval times to the present. Selections from the works of Kornaros to Ritsos.

01:489:493,494. INDEPENDENT STUDY IN MODERN GREEK (3,3)

Prerequisite: Permission of the discipline adviser.

Courses in English

01:489:205. BYZANTIUM: THE IMPERIAL AGE (3)

Credit not given for both this course and 01:510:205.

Development of the medieval Greek state and its civilization, 7th through 13th centuries. Key themes of history and culture (political theory, theology, literature, art). Relations with the Slavs, Arabs, Turks, and the West.

01:489:207. BYZANTIUM: THE LAST CENTURIES (3)

Credit not given for both this course and 01:510:207.

Development of Byzantine society and culture from the Latin crisis (1204–1261) through the Turkish conquest (1453), including the Byzantine impact on West European, Slavic, and Ottoman cultures.

01:489:241. MASTERPIECES IN MODERN GREEK LITERATURE (3)

Credit not given for both this course and 01:195:241. In translation.

Readings and discussions of representative works from the *Errotokritos* of Vitzentos Kornaros to the contemporary works of Giannis Ritsos.

01:489:312. GREEK CHRISTIANITY (3)

Credit not given for both this course and 01:840:312.

Eastern church tradition from the second through the eighth centuries; theological controversies and the development of liturgy, monasticism, and mysticism.

01:489:316. BYZANTINE LITERATURE (3)

Key genres and works of Byzantine literature, late 6th through 15th century. Readings drawn from history, hagiography, poetry, theology, romance, satire, and laments.

01:489:347. THE LIFE AND WORKS OF ODYSSEUS ELYTIS (3)

Credit not given for both this course and 01:195:347.

Examination of the works of Odysseus Elytis; the writers and artists who influenced his work.

01:489:351. THE ICONOCLASTIC CONTROVERSY: CAUSES AND EFFECTS (726–843 C.E.) (3)

Study of the Iconoclastic Controversy (726–843 C.E.), its causes and importance in the development of modern Greek religion and culture.

01:489:358. ODYSSEUS: FROM HOMER TO KAZANTZAKIS (3)

Credit not given for both this course and 01:195:358. Taught in English.

Examination of the Homeric figure of Odysseus: his reincarnation and transformation in Modern Greek.

01:489:380. SPECIAL TOPICS: MODERN GREEK STUDIES (3)

In Greek or in translation.

Variable content. Special studies emphasizing particular historical ideas and themes, prominent literary figures and forms, as well as important political and social events that have contributed to the shaping of modern Greek society. Designed by individual instructors.

01:489:381. MODERN GREEK POLITICS AND SOCIETY (3)

Examination of the domestic and international forces that have shaped the political, social, institutional, and economic development of Greece in the post–World War II era.

01:489:382. GENESIS OF MODERN GREECE: 1450–1830 (3)

Credit not given for both this course and 01:510:382.

Political, social, religious, cultural, and intellectual experience of Greeks under Ottoman rule, 1450–1830, culminating in national independence.

01:489:383. THE LIFE AND WORKS OF NIKOS KAZANTZAKIS (1885–1957) (3)

Pre- or corequisite: 01:489:241 or permission of the instructor. *In translation.*

Credit not given for both this course and 01:195:383.

Works of Nikos Kazantzakis (1885–1957) and the Eastern and Western ideas that influenced him: Homer, Henri Bergson, Nietzsche, Freud, and Buddhist philosophy.

HINDI 505

(See also Asian Studies 098)

Department of Asian Languages and Cultures

Courses

01:505:101,102. ELEMENTARY HINDI (4,4)

Introduction to sound, grammar, and writing system of Hindi; practice and exercises in speaking, reading, and writing.

01:505:201,202. INTERMEDIATE HINDI (4,4)

Prerequisite: 01:505:102 or equivalent.

Development of language skills: vocabulary building, oral proficiency, listening and reading comprehension; study of grammar.

HISTORY (General / Comparative History 506; African, Asian, and Latin American History 508; European History 510; American History 512)

Department of History, Faculty of Arts and Sciences

Web Site: <http://history.rutgers.edu>

Chairperson: Ziva Galili

Undergraduate Director: Matt K. Matsuda

Professors:

Michael P. Adas, B.A., *Western Michigan*; M.A., Ph.D., *Wisconsin*
 Rudolph M. Bell, B.A., *Queens College*; Ph.D., *CUNY*
 Jack Cargill, B.A., M.A., *Texas*; Ph.D., *California (Berkeley)*
 John W. Chambers II, B.S., *Temple*; M.A., *San Francisco State*; Ph.D., *Columbia*
 Paul G.E. Clemens, B.S., *Maryland*; Ph.D., *Wisconsin*
 Ziva Galili, B.A., *Hebrew (Jerusalem)*; M.Phil., Ph.D., *Columbia*
 William Gillette, B.S.F.S., *Georgetown*; A.M., *Columbia*; Ph.D., *Princeton*
 Sumit Guha, B.A., *Delhi*; M.A., Ph.D., *Stanford*
 Nancy A. Hewitt, B.A., *SUNY (Brookport)*; Ph.D., *Pennsylvania*
 Reese Jenkins, B.A., *Rochester*; M.A., *Jawaharlal Nehru*; Ph.D., *Cambridge*
 Temma Kaplan, B.A., *Brandeis*; M.A., Ph.D., *Harvard*
 Donald R. Kelley, A.B., *Harvard*; M.A., *Paris*; Ph.D., *Columbia*
 Steven F. Lawson, B.A., *CUNY (City College)*; M.A., Ph.D., *Columbia*

HISTORY

T.J. Jackson Lears, B.A., *Virginia*; M.A., *North Carolina (Chapel Hill)*; M.A., Ph.D., *Yale*
 Suzanne Lebsock, B.A., *Carleton College*; M.A., Ph.D., *Virginia*
 James Livingston, B.A., M.A., Ph.D., *Northern Illinois*
 Phyllis Mack, A.B., *Barnard College*; A.M., *San Francisco State*; Ph.D., *Cornell*
 Karl F. Morrison, B.A., *Mississippi*; M.A., Ph.D., *Cornell*
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 James W. Reed, B.A., *Louisiana State*; A.M., Ph.D., *Harvard*
 Bonnie G. Smith, A.B., *Smith College*; Ph.D., *Rochester*
 Keith Wailoo, B.A., *Yale*; M.A., Ph.D., *Pennsylvania*
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 Minkah Makalani B.A., *Missouri (Columbia)*; M.A., *Southern Illinois (Edwardsville)*; Ph.D., *Illinois (Urbana-Champaign)*
 Donna Murch B.A., *Williams*; M.A., Ph.D., *California (Berkeley)*

The study of history provides students with a perspective on events that have shaped the contemporary world. The Department of History offers an array of two hundred course offerings and many research opportunities. The courses are designed to (1) teach the student the important skills of critical reading, logical analysis, and effective essay writing, and (2) provide the student with an understanding of the historical context in which contemporary men and women have developed.

Students should begin with introductory-level courses (100), proceed to the upper-level courses that are at the center of the history major (300), and finally to the advanced courses (400), which usually require significant research. First-year students may not take 300- or 400-level courses without departmental approval.

The history major is designed to expose students to the histories of various civilizations over time and place. However, it also affords specialization in one area, time, or theme (e.g., African history, medieval Europe, or women in history) to interested students, in consultation with departmental advisers.

For additional information, visit the department's web site.

Major Requirements

History majors must complete 11, one-term, 3-credit courses in history with a grade of C or better in each course, (1.5 credit minicourses do not count), according to the following program:

- Four 100-level courses from among the following, no more than two of which are in the global history sequence:
 Global history: 01:506:110, 111, 112, 113, 114
 European history: 01:510:101, 102
 U.S. history: 01:512:103, 104
- Seven 200- through 400-level courses, at least five of which must be at the 300 or 400 level, including a history seminar. History seminar, either 01:506:401 or 402, is required of all majors and normally taken in the junior year.
- Of the 11 total courses, at least two must be in each of the three following areas:
 Global, African, Asian, Latin American, or Native American history (01:506:110–114 and all subject 508 courses)
 European history (510)
 United States history (512)
- At least one course in the history of premodern civilization.

In consultation with an adviser, 100-level courses may be replaced by more advanced courses.

Ancient History and Classics Option

The ancient history and classics option in the history major requires 15 3-credit courses (of which at least three must be history department courses and at least three must be classics department courses), apportioned as follows:

- At least two courses in ancient languages (at least two languages: Latin, Greek, and / or other ancient languages offered at the university, e.g., Sanskrit and Hebrew), with at least one of the courses at the 200 level or above. Advanced placement can substitute for either or both of the courses, if at the appropriate level. Suggested courses are 01:490:207 Classical Greek Prose and 01:580:203 Intermediate Latin Prose.
- Three ancient history or classics survey courses at the 200 level, from among:
 01:190:205 Greek Civilization
 01:190:206 Roman Civilization
 01:508:200 Ancient Near East
 01:510:201 Ancient Greece
 01:510:202 Ancient Rome
 01:510:205 Byzantium: The Imperial Age
 01:510:207 Byzantium: The Last Centuries
 In consultation with an adviser, appropriate higher-level courses, or courses from other departments, may be substituted for any of the 200-level courses mentioned above.
- Six ancient history or classics lecture courses at the 300 level, from among:
 01:190:320 Women in Antiquity
 01:190:322 Greek Political Philosophy
 01:190:350 Greek Society
 01:190:372 Cities of the Classical World
 01:490:306 From Athens to Alexandria
 01:490:391 Readings in Greek Prose (historical topic / author)

- 01:510:301 Early Greece
- 01:510:302 Classical Greece
- 01:510:303 Hellenistic World
- 01:510:304 The Rise of the Roman Republic
- 01:510:306 Roman Empire
- 01:510:307 The Roman World in Late Antiquity
- 01:510:308 Ancient Cultural and Intellectual History
- 01:510:403 Ancient Warfare and Diplomacy
- 01:580:325 The History of Livy
- 01:580:329 Tacitus
- 4. One ancient history or classics course at the 300 or 400 level focusing on research and writing such as:
 - 01:490:391 Readings in Greek Prose (historical readings)
 - 01:506:401,402 History Seminar (ancient topic)
 - 01:506:471,472 Research in History (ancient topic)
 - 01:580:369,370 The Seminar in Latin (historical readings)
 college honors or departmental project (appropriate topic)
- 5. Three additional courses in history, classics, Latin, or Greek (in any combination, but no more than two of them at the 100 level).

Minor Requirements

General History Minor

The minor in history consists of six 3-credit courses, passed with a grade of C or better, including three courses at the 300 to 400 level.

Teacher Certification

History majors interested in receiving teacher certification (K–12) should contact advisers in the Department of History and in the Graduate School of Education in their first year or as soon as possible thereafter.

Departmental Honors Program

The departmental honors program enables students to pursue their individual interests in history and helps prepare them for future research work or graduate study. Qualified seniors take two terms of special honors seminars and work with a faculty adviser on a major research paper. Interested students should read the program description available at the history department and discuss their plans thoroughly and well in advance with a faculty adviser. Approval of the research program by a faculty sponsor who serves as director is required for admission to the program.

Courses (506)

01:506:105. HONORS COLLOQUIUM (3)

By permission of the department. Open to students in college honors.

Study of a contemporary social issue from the perspective of the discipline of history. Specific title available at time of registration through the Faculty of Arts and Sciences honors programs.

01:506:110. AGE OF EUROPEAN GLOBAL EXPANSION (3)

Traces the rise of Europe to global dominance beginning with early explorers and empire builders, and focusing on Europe's impact on Africa, Asia, and the Americas.

01:506:112. PATTERNS IN CIVILIZATION: LOVE (3)

Love and its literary expression in Japan and Europe since the Middle Ages. Comparative analysis of culture and society, political and economic transformations, religion.

01:506:113. PATTERNS IN CIVILIZATION: DEATH (3)

Individual and societal responses to death in Japan, Europe, and the United States. Comparative analysis of culture and society, political and economic transformation, religion.

01:506:114. WORLD CIVILIZATIONS: EUROPE, AFRICA, AND AMERICA (3)

Family, economy, government, and religion in major civilizations of West Africa, Europe, and North America. Interaction of these three geographical areas through the slave trade, colonialism, and the movement of ideas and culture.

01:506:201. TWENTIETH-CENTURY GLOBAL HISTORY TO 1945 (3)

Credit not given for both this course and 01:506:111.

Emphasis on themes in political-military and social-cultural history worldwide, including imperialism, origins and impact of two world wars, revolutions, fascism, Nazism, race and gender issues.

01:506:202. TWENTIETH-CENTURY GLOBAL HISTORY FROM 1945 (3)

Focus on critical themes from Hiroshima to September 11, 2001, including the atomic age, superpower rivalries, decolonization, population growth and development, globalization, environmental degradation, and terrorism.

01:506:203. HISTORIES OF THE PACIFIC (3)

Survey of Pacific island peoples and cultures from early navigators and settlers to the colonial and postcolonial eras of the 19th and 20th centuries.

01:506:205. PARIS/TOKYO: 1700–PRESENT (3)

Comparative study of French and Japanese culture from 1700 to the present, drawing on literary and visual representations from both traditions.

01:506:211. WOMEN IN EUROPE AND THE AMERICAS UNTIL 1800 (3)

Credit not given for both this course and 01:988:211.

Survey of women's roles in Western society and culture—covering Europe and the New World up to about 1800.

01:506:212. WOMEN IN EUROPE AND THE UNITED STATES SINCE 1800 (3)

Credit not given for both this course and 01:988:212.

Survey of women's roles in Western society and culture covering the 19th and 20th centuries.

01:506:221. HISTORY OF EXPLORATION (3)

Exploring expeditions from Columbus to the moon flights. Experiences of explorers; political, economic, and cultural motives for exploration; effects of exploration on society and on views of the world.

01:506:224. SLAVERY IN WORLD HISTORY (3)

Historical survey of the institution of slavery from antiquity to the present day, with particular attention to the relationship of human bondage to broader progress of social and economic change.

01:506:241. FILM AND HISTORY (3)

Presentation of films relating to history and culture, combined with readings and discussions of standard history accounts.

01:506:251. HISTORY OF SCIENCE AND SOCIETY (3)

Science and its social context from 1500 to the present. Development of ideas; interaction with philosophy, religion, and art; science as a profession.

01:506:253. HISTORY OF TECHNOLOGY AND SOCIETY (3)

Impact of new production, transportation, communication, and consumer technologies on society from the industrial revolution (mid-1700s) to the present.

HISTORY

01:506:271. JEWISH SOCIETY AND CULTURE I: FROM ANTIQUITY TO MIDDLE AGES (3)

Credit not given for both this course and 01:563:201.

Social, economic, religious, and political experiences of the Jewish people from the Biblical world of the ancient Near East until the Middle Ages.

01:506:272. JEWISH SOCIETY AND CULTURE II: THE MODERN EXPERIENCE (3)

Credit not given for both this course and 01:563:202.

Jewish life from the breakdown of traditional society in Europe in the 1700s until the rise of the modern state of Israel in the 20th century.

01:506:313. WOMEN AND SOCIAL MOVEMENTS TO 1945 (3)

Credit not given for both this course and 01:988:371.

In-depth analysis of different ways women have organized for change. Focus on three or four case studies using cross-cultural perspectives to illustrate various themes of gender and collective action by women.

01:506:314. WOMEN AND SOCIAL MOVEMENTS SINCE 1945 (3)

Credit not given for both this course and 01:988:372.

Twentieth-century autonomous women's movements, emphasizing the second wave of feminism from cross-cultural perspectives. Selected case studies to illustrate themes of gender and collective action.

01:506:321. DISEASE IN HISTORY (3)

Human disease on a global scale from the Paleolithic period to the present, with emphasis on infectious disease and diet.

01:506:322. BLACK DEATH TO OBESITY EPIDEMIC: HISTORY OF PUBLIC HEALTH IN THE WEST (3)

Surveys attempts to protect health of human populations from the Black Death in Europe to rising concern about obesity in the United States. Explores shifting patterns of disease and illness, and emergence and growth of public health as a domain of expert knowledge and policy in the United States and Europe.

01:506:324. HISTORY OF AIDS PANDEMIC (3)

Explores the AIDS epidemic from a range of historical vantage points: science, health care, and social and cultural life in a variety of local, national, international, and institutional contexts. Focuses on United States, Haiti, and Africa.

01:506:328. ATLANTIC CULTURES 1500–1800 (3)

Credit not given for both this course and 01:350:328.

Encounters between peoples of Europe, Africa, and the Americas from the 16th through the 18th centuries. Team-taught, interdisciplinary course with an emphasis on the interpretation of texts and visual images from the era.

01:506:361. HISTORY OF SOCIALISM AND COMMUNISM (3)

History of movements for socialism and communism, their diverse development on the world scene and impact on modern history.

01:506:363. IMPERIALISM (3)

Causes of colonial expansion by European powers, Russia, Japan, and the United States; the nature of colonial empires; the impact of imperialism on Africa and Asia.

01:506:364. COLONIALISM TO GLOBALISM (3)

Differences and similarities of the major European encounters with non-Europeans in modern history.

01:506:373. HISTORY OF JEWISH WOMEN (3)

Credit not given for both this course and 01:563:373 or 01:988:373.

Jewish women's history; examines the religious, social, intellectual, and cultural environments of Jewish women from the biblical period through the 20th century.

01:506:375. JEWISH IMMIGRANT EXPERIENCE (3)

Credit not given for both this course and 01:563:375.

Modern Jewish immigrant experience, focusing on European and Middle Eastern communities resettled in America, Israel, and Europe.

01:506:391,392. HISTORICAL STUDIES (3,3)

Separate sections focusing on different topics at different times and in different areas. Specific titles available at time of registration.

01:506:393. ADVANCED TOPICS IN THE HISTORY OF WOMEN (3)

Credit not given for both this course and 01:988:393.

Advanced course on specialized topic in the history of women.

01:506:401,402. HISTORY SEMINAR (3,3)

Introduction to skills and techniques of historical research, including writing a research paper based on primary sources. Specific topics of sections available at time of registration.

01:506:424. READING AND WRITING ABOUT NATURE (3)

Prerequisite: Permission of instructor.

Exploration of political, philosophical, fictional, visual texts on relationship between humans and nature in Anglo-North America, late-16th century to present.

01:506:451. PUBLIC HISTORY INTERNSHIP (3)

Open only to junior and senior history majors.

Professional, supervised work for historical society, site, archives, museum, legislative office, or equivalent; 112 hours required. Faculty coordinator evaluates student's paper / product and agency's assessment.

01:506:452. GENERAL HISTORY INTERNSHIP (3)

Open only to junior and senior history majors.

Professional, supervised work for historical society, site, archives, museum, legislative office, or equivalent; 112 hours required. Faculty coordinator evaluates student's paper / product and agency's assessment.

01:506:471,472. RESEARCH IN HISTORY (3,3)

Not open to honors candidates.

One term independent study projects.

01:506:473,474. READINGS IN HISTORY (3,3)

Independent readings under supervision of a member of the department.

01:506:495-496. HONORS PROGRAM IN HISTORY (BA,BA)

Both terms must be completed to receive degree credit.

Focus on writing of a major research paper working with an individual professor. A seminar guides through stages of writing using short papers as the vehicle for the exploration; outlines, rough drafts, etc.

Courses (508)

01:508:200. ANCIENT NEAR EAST (3)

Credit not given for both this course and 01:563:200.

Origins and development of the societies of Mesopotamia, Egypt, Asia Minor, and Palestine, through the period of the Persian Empire.

01:508:201. ISLAMIC CIVILIZATION (3)

(Formerly 01:508:204)

Credit not given for both this course and 01:014:205 and 01:685:201.

Survey of Islamic societies from seventh-century Arabia to modern times. Religious, political, military, social, economic, and cultural institutions and organizational patterns.

01:508:220. ANCIENT AFRICA (3)

Precolonial African societies and kingdoms: family life, cities, Islam, growth and decline of states, impact of the slave trade, African culture in the Americas.

01:508:222. MODERN AFRICA (3)

Nineteenth- and 20th-century Africa: resistance and accommodation to colonialism, impact of Christianity, African workers and new elites, changing roles of women, nationalism, revolution.

01:508:224. WOMEN AND GENDER IN AFRICAN HISTORY (3)

Credit not given for both this course and 01:988:224.

Issues in the history of gender in Africa: female slavery, women and power formations, women in production and trade, family and community, gender and protest.

01:508:230. SOUTH ASIAN HISTORY: 600 B.C.E. TO 1950 C.E. (3)

Introduction to 2,500 years of South Asian history from circa 600 B.C.E. to 1950 C.E.

01:508:231. SOUTH ASIAN CIVILIZATION: THE FIRST FIVE MILLENNIA (3)

History and culture of South Asia from protohistoric beginnings in the Indus Valley to the late first millennium C.E. Emphasizes processes of sociocultural change such as social organization and ideology, religious institutions and patronage, and the evolution of classical culture.

01:508:240. CLASSICAL ASIA (3)

Introduction to the three great civilizations of Asia: India, China, and Japan. Emphasis on traditional family life, art, literature, and the spread of Buddhism.

01:508:242. MODERN EAST ASIA (3)

Development of China and Japan in the 19th and 20th centuries: the response to Western imperialism; the rise of Chinese communism and Japanese fascism.

01:508:244. CHINA AND THE UNITED STATES (3)

History of contacts between the two peoples since 1784. Concentrates on period from 1941 to present. Includes all aspects of cultural, economic, and political relations.

01:508:260. COLONIAL LATIN AMERICA (3)

Study of formation of culture and society in Latin America through intermingling and merger of Native Americans, Iberians, and Africans.

01:508:262. MODERN LATIN AMERICA (3)

Introductory survey of Latin America from Columbus to Castro with major emphasis on the political history (authoritarian, populist, and revolutionary movements) of the 19th and 20th centuries.

01:508:264. LATIN AMERICA AND THE UNITED STATES (3)

(Formerly 01:512:358)

Survey of the relations between the United States and Latin American nations from the 1780s to the present.

01:508:270. THE CARIBBEAN (3)

Credit not given for both this course and 01:836:229.

Introductory survey of Caribbean history emphasizing the common aspects (foreign intervention, slavery, primary export economies) of the culturally diversified countries of the area.

01:508:300. THE ARAB-ISRAELI CONFLICT (3)

Credit not given for both this course and 01:563:300.

Evolution of the Arab-Israeli conflict over the past century. Emphasis on conflict's origins, dynamics, and complexities rather than on prescriptions for solution.

01:508:301. OTTOMAN EMPIRE (3)

Political, socioeconomic, and cultural history of the Ottoman Empire, 1300–1900, from frontier principality, to world empire, to post-suleymanic crisis and change.

01:508:302. THE CLASSICAL AGE OF ISLAM (3)

Rise and expansion of Islam and formation of Islamic civilization in the Middle East from 600 to the demise of the Abbasid Caliphate ca. 1250.

01:508:307. WOMEN AND SOCIETY IN THE ISLAMIC MIDDLE EAST (3)

Credit not given for both this course and 01:988:308.

History of women and gender relations in the Islamic Middle East: origins of gender inequalities, women's functioning within society, reality versus literary depictions, recent transformations.

01:508:310. ISRAELI CULTURE (3)

Credit not given for both this course and 01:563:310 or 01:685:310.

Formation of modern Israeli culture since the beginning of Zionist immigration to Palestine; its historical, social, literary, and artistic expressions.

01:508:316. ISRAELI WOMEN: HISTORICAL AND LITERARY PERSPECTIVES (3)

Credit not given for both this course and 01:563:316 or 01:988:316.

Impact of socialism, nationalism, ethnicity, religion, and feminism on Israeli women's roles within the family, labor force, army, kibbutz, and politics.

01:508:320. HISTORY OF SOUTHERN AFRICA (3)

Precolonial African societies and kingdoms, family life, religion, European colonialism, and African nationalist and revolutionary movements. Emphasis on South Africa, apartheid, and the freedom struggle.

01:508:322. WEST AFRICA (3)

Politics in past and present states, rise of new social and economic groups, various reactions to the West during precolonial and colonial eras.

01:508:324. AFRICANS IN THE AMERICAS (3)

Africans in the Americas. Latin America, the Anglophone and Francophone Caribbean, and the United States. Focus on the African background, slavery, and race relations.

01:508:325. AFRICA FROM THE 15TH TO THE 19TH CENTURY (3)

Explores the history of Africa between the 15th and the 19th centuries. Focuses on themes such as state formation, economic development, and the imperial conquest.

01:508:326. ISLAM IN AFRICAN HISTORY (3)

Relation of Islam to the history of long distance trade, the rise of urban centers, shifting identity formations, gender dynamics, and religious conflict.

01:508:327. WORLD WAR II AND AFRICA (3)

Focuses on the history of Africa's involvement in World War II and the impact of this involvement on African political and economic history, with special emphasis on the war's role in nationalist movements.

01:508:328. HISTORY OF HEALTH AND HEALING IN AFRICA (3)

Impact of colonial and postcolonial history on patterns of health and health care in sub-Saharan Africa. Focus on African responses to changing new medical technologies and cultures, and emerging patterns of disease.

01:508:330. EARLY MODERN SOUTH ASIA, 1500–1800 (3)

The Mughal Empire between the 16th and 19th centuries and the making of modernity in the region.

01:508:331. WOMEN IN SOUTH ASIAN HISTORY (3)

Not open to first-year students.

Origins and development of modern Indian feminist struggles in their historical contexts between the late 18th and the late 20th centuries.

01:508:332. SLAVERY IN SOUTH ASIAN HISTORY (3)

Covers military, monastic, and household forms of slave-employment in the economy of the region between the 12th and the 19th centuries. Also traces changes in the legal and economic statuses of slaves in the latter half of the period.

HISTORY

01:508:333. CULTURE AND POWER IN SOUTH ASIA (3)

Explores connections between sacred power, “sciences,” courts, nation-building and developments in music, dance, drama, and cinema.

01:508:334. PASSAGES TO INDIA: SOUTH ASIA THROUGH TRAVEL NARRATIVES (3)

Introduces students to South Asian and comparative history through reading of travelogues by visitors from other civilizations, 7th to 20th century.

01:508:336. SOUTH ASIA, 1947 TO THE PRESENT (3)

Follows social and political development of South Asia after decolonization, assessing the developmental agendas and international relations of the new regimes.

01:508:339. ASIA AND AFRICA SINCE 1945 (3)

Focuses on the history of sub-Saharan Africa, India, China, and the Islamic world since 1945. Emphasis of political, cultural, and social developments.

01:508:340. LATE IMPERIAL CHINESE CULTURE AND SOCIETY (3)

Chinese history from the 16th to the 19th centuries. Focus on power, gender, and ethnicity in a comparative framework of analysis.

01:508:342. CHINA, 1800 TO THE PRESENT (3)

Continuity and change in Chinese society, politics, culture, international relations, and the economy. Industrialization, rural life, nationalism, socialism, the party-state, gender issues, democracy movements.

01:508:344. CHINA’S SOCIALIST REVOLUTION (3)

History of socialism and revolution in China, emphasizing rise of Chinese Communist Party, its victory in 1949, and post-1949 People’s Republic of China.

01:508:346. WOMEN IN CHINESE HISTORY (3)

Credit not given for both this course and 01:988:348.

Dual focus: women and womanhood in history; Chinese history through women’s eyes. From imperial times to present day.

01:508:352. JAPAN’S RISE TO WORLD POWER (3)

Japan’s emergence from 1800 to present. The path to industrialization, military expansion, and postwar recovery. Emphasis on changing lifestyles depicted in literature and film.

01:508:360. THE HISTORY OF BRAZIL (3)

Social, economic, and political developments of the Colonial Period, the Independence Movement, the Empire, the First Republic, the era of Getulio Vargas, and the Second Republic.

01:508:362. MEXICO (3)

Surveys Mexican history from pre-Columbian times to the present with special emphasis on the 20th century and the Mexican Revolution.

01:508:364. ENVIRONMENTAL HISTORY OF LATIN AMERICA (3)

Credit not given for both this course and 01:590:364.

Mutual reshaping of physical environment and human society in Latin America, from pre-Colombian through contemporary times.

01:508:365. REVOLUTION IN LATIN AMERICA (3)

(Formerly 01:508:460)

Compares and contrasts the causes and effects of major revolutionary movements in 20th-century Latin America: Mexico, Bolivia, Cuba, and Central America.

01:508:367. THE AFRO-LATIN AMERICAN EXPERIENCE (3)

Examines profound impact of African diaspora on Latin American societies where persons of African descent represent significant minorities and numerical majorities. Explores how Afro-Latin Americans remember the past and experience the present.

01:508:368. LATIN AMERICAN SOCIAL HISTORY (3)

(Formerly 01:508:462)

Credit not given both for this course and 01:836:462.

Impact of economic development, immigration, and urbanization on lower- and middle-class life in the 19th and 20th centuries through literary and anthropological as well as historical sources.

01:508:369. GENDER IN LATIN AMERICAN HISTORY (3)

Study of the position of men and women in Latin American society from pre-European times to the present.

01:508:370. THE HISTORY OF CUBA (3)

Credit not given for both this course and 01:836:390.

Study of Cuba from pre-Columbian times to the present day. Deals with the long battle for freedom during the 19th and 20th centuries.

01:508:371. HISTORY OF PUERTO RICO (3)

Credit not given for both this course and 01:836:371.

Examination from pre-Columbian to present times. Focus on Spanish colonial policy, slavery and land tenure systems, emergence of national identity, U.S. invasion and rapid economic changes, and population control and migration.

01:508:372. HISTORY OF THE DOMINICAN REPUBLIC (3)

Credit not given for both this course and 01:836:372.

From French invasion of Hispaniola to present. Role in Spanish Empire, U.S. control in transition to sugar economy, Trujillismo, U.S. invasion in 1965, and impact of migration on society.

01:508:374. COMPARATIVE SLAVERY IN THE CARIBBEAN (3)

Credit not given for both this course and 01:836:300.

Analysis of different institutions of slavery in the Caribbean and the rise of the plantation societies. Investigating the effects on Europe and the eastern hemisphere and its legacy.

01:508:379. NATIVE AMERICAN HISTORY I (3)

(Formerly 01:508:280)

Examines the images and realities of Native American cultures and histories from America before Columbus through the early period of European-Native American interaction.

01:508:380. NATIVE AMERICAN HISTORY II (3)

Examines the images and realities of Native American cultures and histories from the early 19th century through the present day.

01:508:383. HISTORY OF NATIVE AMERICAN WOMEN (3)

Credit not given for both this course and 01:988:387.

Explores the lives and experiences of Native American women from 16th-century contact with Europeans through the present day United States.

01:508:391,392. HISTORICAL STUDIES (3,3)

Separate sections focusing on different topics at different times and in different areas. Specific titles available at time of registration.

01:508:409. CRUSADER STATES SYRIA-PALESTINE, 1099–1291 (3)

(Formerly 01:510:409)

Origins, development, and extinction of the Crusader states in Syria-Palestine. Dynamics of Crusader colonialism and interactions with Muslims, Jews, and eastern Christians.

01:508:410. MEDIEVAL TURKEY, 1071–1481 (3)

Credit not given for this course and 01:685:410.

Origins and development of Turkish states in Asia Minor including Seljuq Sultanate of Rum, its successor beyliks, and early Ottoman Empire.

01:508:420. AFRICAN LABOR HISTORY (3)

Credit not given for both this course and 01:014:367.

African labor history: precolonial labor mobilization, control and resistance; working-class formation; the labor process and worker consciousness.

01:508:422. AFRICAN CULTURAL HISTORY (3)

Changes in family life, sex roles, rural and urban communities, religion, education, and art and literature during the 19th and 20th centuries. Primarily sub-Saharan Africa.

01:508:429. RESEARCH IN AFRICAN HISTORICAL STUDIES (3)

Construction of the African past through extended study of sources for one region or theme. Requires research paper based on primary sources.

01:508:442. CHINA'S FOREIGN RELATIONS (3)

China's role in international affairs during the transition from the "unequal treaties system" to Soviet-bloc membership to participation in the international community.

01:508:450. SOCIETY AND CULTURE IN JAPAN (3)

Topical approach to traditional Japanese history. Focus on social institutions, the courtly and martial arts, and the endurance of traditional values in postindustrial Japan.

01:508:468. ISSUES IN AFRICAN-BRAZILIAN HISTORY (3)

Open to juniors and seniors only. Credit not given for both this course and 01:014:410 or 01:590:410.

Overview of history of largest African diaspora community in the world. Critical analysis of major issues in African-Atlantic diaspora studies. Selected readings in literature, oral history, African-Brazilian movement documents, and iconography.

Courses (510)**01:510:101. DEVELOPMENT OF EUROPE I (3)**

Introductory survey of European history from ancient times to the early modern period. Introduction to historical interpretation and historical inquiry.

01:510:102. DEVELOPMENT OF EUROPE II (3)

Introductory survey of European history from the early modern period to the present. Introduction to historical interpretation and historical inquiry.

01:510:201. ANCIENT GREECE (3)

Civilization of the eastern Mediterranean world in ancient times, with emphasis on the origins of Western civilization and the Greek contribution to Western culture.

01:510:202. ANCIENT ROME (3)

The Roman Republic and the Empire, with emphasis on the rise and decline of a Mediterranean world civilization under Roman leadership.

01:510:205. BYZANTIUM: THE IMPERIAL AGE (3)

Development of the medieval Greek state and its civilization, 7th through 13th centuries. Key themes of history and culture (political theory, theology, literature, art). Relations with the Slavs, Arabs, Turks, and the West.

01:510:207. BYZANTIUM: THE LAST CENTURIES (3)

Development of Byzantine society and culture from the Latin crisis (1204–1261) through the Turkish conquest (1453), including the Byzantine impact on West European, Slavic, and Ottoman cultures.

01:510:209. EMERGENCE OF MEDIEVAL EUROPE, 400–1150 (3)

Credit not given for both this course and 01:667:281.

Europe from the fall of Rome through the Dark Ages and into the feudal age—the era of Charlemagne, the Vikings, and the Crusades.

01:510:211. HARVEST OF THE MIDDLE AGES, 1150–1520 (3)

Credit not given for both this course and 01:667:282.

From feudalism to the Protestant Reformation, with emphasis on social and economic developments. Religious, political, institutional, and cultural changes.

01:510:213. THE CRUSADES (3)

Credit not given for both this course and 01:685:213.

Ideology and expressions of the crusades, 11th to 14th centuries, including crusades against Muslims, heretics, and other papal enemies. Extensive use of film.

01:510:245. THE ARTS OF POWER: RITUAL, MYTH, AND PROPAGANDA (3)

Investigates how paintings, movies, poems, and ceremonies have been manipulated to bolster the political authority of rulers, including Louis XIV, Lincoln, Hitler, and Elizabeth II.

01:510:253. HISTORY OF WITCHCRAFT AND MAGIC (3)

Credit not given for both this course and 01:988:253.

Witchcraft in relation to the history of religion; the phenomena of crime, deviance, and demographic change; and the history of women in Europe and America.

01:510:260. REMEMBERING THE SHETTEL (3)

Credit not given for both this course and 01:563:210.

How Jewish life in East European small towns has been documented and recalled from 19th century to present in fiction, art, ethnography, film, memoir.

01:510:261. HISTORY OF THE HOLOCAUST (3)

Credit not given for both this course and 01:563:261.

Development of anti-Semitism in modern European history culminating in the "Final Solution"; special emphasis on Jewish responses and resistance.

01:510:271. RUSSIA AND THE WEST (3)

Formation of traditional Russian society in isolation from the West; the impact of the West on Russia from Peter the Great to the present.

01:510:300. GREEK AND ROMAN SLAVERY (3)

Credit not given for both this course and 01:190:300.

Social, economic, legal, and political aspects of slavery in Ancient Greece and Rome. The sources and numbers of slaves, forms of servitude, manumission, slave labor.

01:510:301. EARLY GREECE (3)

History of the Greek world from Minoan Crete through the Persian War. Readings (in translation) range from Homer through Herodotus.

01:510:302. CLASSICAL GREECE (3)

Greek history from the Persian War to the Macedonian conquest of Greece. Readings (in translation) from Thucydides, Xenophon, Demosthenes, Plutarch, and others.

01:510:303. HELLENISTIC WORLD (3)

Expansion and development of Greek culture from Alexander through the successor kingdoms in Greece, Egypt, Syria-Palestine, and Asia Minor.

01:510:304. THE RISE OF THE ROMAN REPUBLIC (3)

Roman political, social, and cultural history from the beginning of urban settlement through the emergence of the Roman state as the dominant power in the Mediterranean basin to the end of the second century B.C.

01:510:305. THE CRISIS OF THE ROMAN REPUBLIC (3)

Roman political, social, and cultural history during the crisis of the late republic from 133 B.C., the tribunate of Tiberius Gracchus, through the establishment of the principate by the emperor Augustus.

01:510:306. ROMAN EMPIRE (3)

(Formerly 01:510:305)

Political, social, and intellectual developments of the imperial period until the age of Constantine, with emphasis on the first two centuries A.D.

01:510:307. THE ROMAN WORLD IN LATE ANTIQUITY (3)

(Formerly 01:510:306)

Development of the Roman state and society from the late third through early seventh centuries. The transformation of the late classical world, and the origins of Byzantium and the medieval West.

01:510:308. ANCIENT CULTURAL AND INTELLECTUAL HISTORY (3)

(Formerly 01:510:307)

Aspects of cultural, religious, and intellectual developments in the classical world.

01:510:309. A HISTORY OF WESTERN MORALS: ANTIQUITY AND MIDDLE AGES (3)

Examines the formative period of moral ideas in Western civilization in ancient Greek, Roman, and Hebrew societies, then traces the evolution of those ideas through the Middle Ages.

01:510:313. RENAISSANCE IN THE MIDDLE AGES (3)

Transmission and appropriation of classical culture in the patristic age; Irish, Carolingian, 12th-century, and early Italian Renaissance; social and political bases of these movements.

01:510:315. REFORM AND DISSENT IN THE MIDDLE AGES (3)

Christian unity and its implementation, church structure, canon law, monastic reform, conciliar movement, academic and popular heresy, church-state relations, with emphasis on Italy and Germany.

01:510:317. THE RENAISSANCE (3)

Integrated, interdisciplinary study of the age of the Renaissance in Italy and northern Europe from 1300 to 1550.

01:510:318. ERA OF WORLD WAR I (3)

(Formerly 01:510:417)

Causes, course, and consequences of World War I in the light of political, social, and military forces.

01:510:319. THE AGE OF REFORMATION, 1500–1648 (3)

The Protestant and Catholic reformations and their significance for European society.

01:510:320. WOMEN IN ANTIQUITY (3)

(Formerly 01:510:251)

Credit not given for both this course and 01:190:320.

Women in the ancient societies of Greece and Rome. Their roles and images in the social, legal, political, domestic, philosophical, and artistic spheres examined using primary sources.

01:510:321. THE AGE OF ENLIGHTENMENT (3)

Eighteenth-century European philosophy and philosophers examined within their historical contexts. The role of ideas in movements for social, moral, and political change.

01:510:325. NINETEENTH-CENTURY EUROPE (3)

Examination of the formative period of modern Europe, including the industrial and democratic revolutions, nationalism, imperialism, and the crises culminating in World War I.

01:510:327. TWENTIETH-CENTURY EUROPE (3)

Major economic and social forces shaping life in 20th-century Europe, and efforts of major social groups to cope with and shape these forces.

01:510:329. MEDIEVAL CULTURE AND SOCIETY (3)

Topics in medieval religions, political, intellectual, and social history; thematic focus varies by instructor.

01:510:333. FRANCE, OLD REGIME, AND REVOLUTION (3)

French history from Louis XIV to the fall of Napoleon. The absolutist state and the impact of revolution, stressing the interplay of political, social, cultural, and economic history.

01:510:335. MODERN FRANCE (3)

History of France from the fall of Napoleon to the present, with particular emphasis on the relation of political developments to social, intellectual, and economic change.

01:510:337. MEDIEVAL KINGS AND QUEENS (3)

Rulership in theory and practice, from Germanic chieftains to divine-right monarchs, with attention to royal rivals, myths and rituals, marriage, and gender.

01:510:338. ENGLAND IN THE MIDDLE AGES (3)

Political development of England from William the Conqueror to the War of the Roses.

01:510:343. THE POLITICAL HISTORY OF ENGLAND, 1485–1789: CENTURIES OF REVOLUTION? (3)

Explores the political, religious, and intellectual history of early modern England. Topics include the reformation, the state, political culture, revolutions of the 17th century.

01:510:344. THE SOCIAL HISTORY OF ENGLAND, 1580–1780: THE FIRST MODERN SOCIETY? (3)

Explores the socioeconomic and cultural history of early modern England. Topics include popular culture; religion; sex and gender; urbanization; rise of consumerism, industrialism, capitalism.

01:510:345. ENGLISH CONSTITUTIONAL HISTORY TO 1688 (3)

Developments of English governments to 1688, with emphasis on those institutions and political and legal ideas that form the background for American constitutional development.

01:510:346. THE ENGLISH REVOLUTION, 1640–1660 (3)

Explores the most tumultuous period in English history. Topics include causes and revolution, the civil war, regicide and republicanism, radical politics and religion, Oliver Cromwell.

01:510:349. MODERN BRITAIN (3)

Developments since the 18th century that have shaped the character of contemporary Britain, including parliamentary democracy, industrialization, rise and fall of empire, and cultural change.

01:510:350. GREEK SOCIETY (3)

Prerequisite: Recommended: 01:510:201. Credit not given for both this course and 01:190:350.

Social and economic life of the Greeks from the Mycenaean period through the Hellenistic age. Written and material evidence employed.

01:510:351. MEDIEVAL ITALY, 476–1300 (3)

The Italian peninsula from the fall of the empire in the west to the age of the communes: social, political, and religious history.

01:510:354. HISTORY OF ITALY'S PEOPLE (3)

Topical approach. Etruscans to present. Emphasis on culture, geography, religion, philosophy, family structures, agricultural systems, urban development, and universities.

01:510:361. HISTORY OF GERMANY TO 1914 (3)

History of Germany from the Reformation to World War I, emphasizing absolutism, militarism, unification, the rise of nationalism, and anti-Semitism.

01:510:363. HISTORY OF GERMANY SINCE 1914 (3)

Analysis of the collapse of imperial Germany, the failure of democracy in the Weimar Republic, Hitler's Third Reich, the Holocaust, and restructuring of Germany since 1945.

01:510:371. RUSSIA FROM THE VIKINGS TO PETER THE GREAT (3)

Slavic, Scandinavian, Byzantine, and Mongol contributions to traditional Russian culture; development of the autocratic state and its relations with the church, nobility, townspeople, and peasantry.

01:510:373. STATE AND SOCIETY IN IMPERIAL RUSSIA (3)

Autocratic government as a dynamic force in the 18th century and a conservative one in the 19th in the face of intellectual and socio-economic development.

01:510:375. REVOLUTIONARY RUSSIA AND THE SOVIET UNION (3)

Crisis of the old regime; revolution; building socialism in an under-developed country; Stalin's terror; expansion and the cold war; the post-Stalin attempts at reform; the breakup of the Soviet Union.

01:510:381. NATIONAL CONFLICT IN EASTERN EUROPE, 1800–1948 (3)

Emergence of national movements and independent states in Poland, Czechoslovakia, Hungary, Yugoslavia, Romania, and Bulgaria. Problem of national minorities in nation-states, and solutions offered by nationalist, fascist, and communist regimes.

01:510:382. GENESIS OF MODERN GREECE, 1450–1830 (3)

Political, social, religious, cultural, and intellectual experiences of Greeks under Ottoman rule, 1450–1830, culminating in national independence.

01:510:383. COMMUNISM AND POST-COMMUNISM IN EASTERN EUROPE, 1945–PRESENT (3)

Impact of communism and neo-liberalism on Eastern Europe. Collapse of the Soviet Bloc, transition to liberal market capitalism, and its social consequences.

01:510:385. THE HISTORY OF EAST EUROPEAN JEWRY (3)

Credit not given for both this course and 01:563:385.

Economic, legal, and political conditions of Jewish life from the 16th century to World War II. Forms of Jewish response: autonomism, messianism, Hasidism, emigration, and socialism.

01:510:386. HISTORY OF ZIONISM (3)

Credit not given for both this course and 01:563:343.

Messianism, forerunners of Zionism; ideology of Zionism; pioneer movements; the Yishuv and its institutions. The state of Israel: its structure and inner and outer life.

01:510:387. DEVELOPMENT OF THE MARXIST-LENINIST SYSTEM (3)

Ideological background of Marxist-Leninist systems; evolution of Soviet system from Lenin to Gorbachev; disintegration of Soviet system since Gorbachev. Establishment of Marxist-Leninist systems in Eastern Europe and their evolution from Stalin to Brezhnev and dissolution under Gorbachev; special attention to Yugoslav dissidence under Tito; origins and evolution of Chinese Marxist-Leninist system after 1949, including Great Cultural Revolution and reforms under Deng Xiao-Ping; origin and development of Cuban Marxist-Leninist system.

01:510:389. POWER AND POLITICS IN MODERN JEWISH HISTORY (3)

Credit not given for both this course and 01:563:389.

Prerequisite: At least one course in Jewish or European history after 1500.

Political relationship of the Jewish community to the gentile authorities among whom they lived, from Rome in 70 C.E. to the contemporary period. Continuities and discontinuities of traditional conceptions of Jewish political behavior; rebellion and accommodation to structures of power in varying historical contexts.

01:510:390. JEWISH MEMORY (3)

Credit not given for both this course and 01:563:390.

Course explores various forms of Jewish memory shaped in response to major events, including myths, holidays, monuments, pilgrimages, testimonies, museums, literature, and film.

01:510:391,392. HISTORICAL STUDIES (3,3)

Separate sections focusing on different topics at different times and in different areas. Specific titles available at time of registration.

01:510:403. ANCIENT WARFARE AND DIPLOMACY (3)

International politics and military history in the Greek and Roman world. Readings include ancient sources (in translation) and modern interpretations.

01:510:407. ROME IN THE AGE OF AUGUSTUS (3)

Examination of the career of Augustus and the developments in the Roman world during this period. Treatment of the problems of change and continuity through revival and innovation in political, social, and intellectual spheres with emphases on growth of imperial system and on the literary works and social legislation.

01:510:419. EUROPE IN THE CONTEMPORARY WORLD (3)

Europe from 1930s to present, focusing on European responses to challenges of American power, Soviet revolution, and anticolonial movements.

01:510:425. INTELLECTUAL HISTORY OF EARLY MODERN EUROPE (3)

Study of major currents of thought (religious, scientific, political, and social) from the end of the Middle Ages to the 18th century.

01:510:431. ORIGINS OF CAPITALIST SOCIETY (3)

History of the origins and developments of life and consciousness characteristic of capitalist societies since the beginnings of the industrial age.

01:510:441. THE SOCIAL HISTORY OF MEDIEVAL ENGLAND (3)

Concentrates on the interaction between individual and society in medieval England with special emphasis on the life experiences of the common people.

Courses (512)**01:512:103. DEVELOPMENT OF THE UNITED STATES I (3)**

Political, economic, and social history of the United States from colonial times to the Civil War.

01:512:104. DEVELOPMENT OF THE UNITED STATES II (3)

Political, economic, and social history of the United States from the Civil War to the present.

01:512:107. GATEWAY TO DEVELOPMENT OF THE UNITED STATES I (4)

Registration through college dean.

U.S. history to 1877, with weekly recitation section.

01:512:108. GATEWAY TO DEVELOPMENT OF THE UNITED STATES II (4)

Registration through college dean.

U.S. history since 1877, with weekly recitation section.

01:512:121. HEALTH AND ENVIRONMENT IN AMERICA (3)

Changing manner in which Americans perceived and responded to health-related problems involving both the individual and the physical and social environment from the 17th to the 20th century.

01:512:220. YOUR FAMILY IN HISTORY (3)

American history from the perspective of a student's own family or ethnic group. Impact of social, cultural, economic, and religious changes on the family.

01:512:236. EDISON AND HIS ERA (3)

Work of Thomas Edison as a vehicle for understanding the transformation of the American economy and culture from 1880–1930.

01:512:240. WORLD WAR I (3)

Study of the causes, course, and consequences of World War I, with particular emphasis on American culture and foreign policy within Western civilization.

HISTORY

01:512:242. WORLD WAR II (3)

Study of the causes, course, and aftermath of World War II, with particular emphasis on the place of American culture and foreign policy within world politics.

01:512:266. HISTORY OF THE BLACK AMERICAN (3)

Survey of the history of the black American from the colonial era to the present. Includes such topics as slavery, the Reconstruction Era, the Washington-DuBois controversy, the Harlem Renaissance, and the Civil Rights movements.

01:512:278. POPULAR MUSIC IN AMERICAN HISTORY (3)

Popular music examined within the broader social and cultural context of America's past. Significant historical changes in musical expression.

01:512:282. SPORT IN HISTORY (3)

Role of sport in ancient and preindustrial societies; modernization of sport following the industrial revolution; social functions and aesthetics of sport; women in sport; sport in contemporary society.

01:512:300. HISTORY OF COLONIAL AMERICA (3)

From the Age of Discovery through the American Revolution, with particular emphasis on political, economic, and social history.

01:512:301. THE AMERICAN REVOLUTION (3)

Coming of the American Revolution seen in its world setting; various interpretations of the causes; ideological, constitutional, social, economic, political, diplomatic, and military perspectives.

01:512:302. THE UNITED STATES: THE YOUNG REPUBLIC (3)

Examination of the principal political, economic, and social forces that were responsible for the development of the new nation.

01:512:303. AMERICAN CIVIL WAR AND RECONSTRUCTION, 1848–1880 (3)

Analysis of major forces 1848 to 1880. Emphasis on the more immediate background to the war; how the war began; how it was fought; why Reconstruction developed and collapsed.

01:512:304. THE FORGING OF MODERN AMERICA, 1880–1920 (3)

Political reform movements against the background of industrial development, urbanization, and immigration in the United States from 1880 to 1920.

01:512:305. UNITED STATES HISTORY, 1914–1945 (3)

U.S. history from World War I through World War II, emphasizing major themes in U.S. politics, society, culture, and diplomacy.

01:512:306. UNITED STATES HISTORY, 1945 TO THE PRESENT (3)

U.S. history emphasizing the cold war, McCarthyism, and the major political, social, and economic trends of the 1960s and the 1970s.

01:512:314. THE CITY IN AMERICAN HISTORY (3)

Urbanization from the colonial city to the 20th-century metropolis; urban population, institutions, problems, and planning; urbanism in American culture.

01:512:315. FAMOUS TRIALS IN MODERN AMERICA (3)

Civil liberties and civil rights trials in 20th-century America: Abrams, Sacco and Vanzetti, Scopes, Scottsboro, Rosenbergs, Hiss, *Roe v. Wade*.

01:512:316. RADICALISM IN AMERICA (3)

Ideas of the outstanding radicals in American history (18th century to the present), the areas of discontent, and an analysis of the response of the American community.

01:512:317. MURDER IN AMERICAN HISTORY (3)

Famous murders (and other capital crimes) illustrating major cultural and political trends in American life. May include Salem witchcraft, the Boston Massacre, Sacco and Vanzetti, Lindbergh, Leopold and Loeb, and Emmett Till.

01:512:320. AMERICAN FRONTIER HISTORY (3)

Mythology, theory, and reality of the frontier in American social, cultural, and environmental development from discovery to the present.

01:512:321. HEALTH CARE AND SOCIETY IN AMERICA (3)

History of disease in America from the age of smallpox and scarlet fever to the era of AIDS, and history of health and health care from colonial era to present.

01:512:322. DRUGS, MEDICINE, AND SOCIETY IN AMERICA (3)

History of pharmaceutical innovation and production, study of controversies and drug legislation surrounding role and impact of drugs from therapy agents to illicit substances.

01:512:323,324. HISTORY OF THE NORTH AMERICAN ENVIRONMENT (3,3)

Comparative study of the interplay of culture, society, and environment in Canadian, U.S., and Mexican history.

01:512:326. TECHNOLOGY AND SOCIETY IN AMERICA (3)

History of the relationship of technology to American industry and the impact of changing production technology on workers. Influence of new technologies on social, economic, and political structure.

01:512:328. SCIENCE IN AMERICAN CULTURE (3)

Place of science in U.S. history. Science and exploration, war, the economy, and social problems; growth of research and educational institutions; popular science and antisience.

01:512:332. AMERICAN ECONOMIC GROWTH SINCE 1860 (3)

Main currents and major factors in American economic growth, welfare, and decision making, 1860 to the present. Critical evaluation and interpretation of economic issues.

01:512:335. HISTORY ON FILM (3)

Examination of films that interpret the American past and engage major historical issues.

01:512:345. AMERICAN JEWISH HISTORY AND CULTURE (3)

Credit not given for both this course and 01:563:345.
History of the Jews in the New World, beginning in the middle of the 17th century, and then focusing on the United States, until the present.

01:512:347. WAR, PEACE, AND THE MILITARY OF THE UNITED STATES TO 1877 (3)

Survey of American attitudes toward and developments in regard to war, peace, and the military from colonial times through the Civil War and the end of Reconstruction.

01:512:348. WAR, PEACE, AND THE MILITARY OF THE UNITED STATES SINCE 1877 (3)

Survey of American attitudes toward and developments in regard to war, peace, and the military from modernization of the army and navy beginning in the late 19th century through the Spanish-American War, two world wars, the Korean and Vietnam wars, to the present military situation.

01:512:350. FROM COLONIES TO EMPIRE: AMERICAN FOREIGN RELATIONS TO 1898 (3)

American foreign relations from the colonists' conflicts with Native Americans to the Spanish-American War. Territorial expansion, diplomatic principles, economic expansion, rise of the "New Empire."

01:512:352. AMERICAN FOREIGN POLICY SINCE 1898 (3)

American foreign relations from the Spanish-American War to the end of the Cold War. Imperialism, Wilsonian interventionism, World War II, Cold War, detente.

01:512:354. HISTORY OF THE COLD WAR (3)

Soviet-American relations since World War I; global conflict in the post-World War II period; the ideological context in the underdeveloped world.

01:512:355. AMERICA'S RISE TO GLOBAL POWER (3)

Technology as the key source of U.S. identity and projection of power and culture overseas. Focus on the interaction of United States and Asian and African societies.

01:512:356. THE THIRTY YEARS' WAR: AMERICA IN VIETNAM (3)

Examination of the causes and effects of the war in Vietnam with special emphasis on the United States and its role.

01:512:361. HISTORY OF THE SOUTH (3)

Development of southern society from the settlements of Virginia to the present. Aspects of life in the South that distinguish this region from others in the United States.

01:512:364. HISTORY OF BLACKS IN URBAN AMERICA (3)

Explores aspects of black urban life from the early years of the nation to the present. Migration. Examination of contemporary black urban America.

01:512:366. HISTORY OF RACE AND SEX IN AMERICA (3)

Credit not given for both this course and 01:014:366.

Examines how race and gender have independently and jointly determined life chances throughout American history.

01:512:368. HISTORY OF CIVIL RIGHTS, 1900-1980 (3)

Politico-economic, demographic, cultural, and legal forces generating and shaping the struggle for racial justice in the United States from the beginning of the 20th century.

01:512:370. HISTORY OF AMERICAN THOUGHT TO 1850 (3)

Principal ideas about humanity, God, nature, and society in American history from Puritan America to 1850.

01:512:372. HISTORY OF AMERICAN THOUGHT SINCE 1850 (3)

Principal ideas about humanity, God, nature, and society in American history from 1850 to present.

01:512:374. CULTURAL HISTORY OF THE UNITED STATES: 20TH CENTURY (3)

Nature of American culture by study of folk, popular, and elite cultural products, verbal and nonverbal, in a world of mass production and consumption.

01:512:376. AMERICAN CULTURE IN THE 1950s (3)

Survey of major cultural and political developments of the 1950s. Growth of advertising, consumerism, television, popular music, the "Ike Age," McCarthy; perceptions of race, sex.

01:512:377. THE 1960s (3)

Examines the political culture of the 1960s, centering on conflicts between the forces of order, consensus, and containment, and the social forces of protest, resistance, and liberation.

01:512:378. AFRICAN-AMERICAN HISTORY TO 1877 (3)

African-American history from Africa and the slave trade through Reconstruction.

01:512:379. AFRICAN-AMERICAN HISTORY, 1877 TO PRESENT (3)

African-American history from defeat of Reconstruction to present.

01:512:380. WOMEN IN AMERICAN HISTORY I (3)

Credit not given for both this course and 01:988:380.

Changing status of women from settlement to Reconstruction, including the study of work, family, religion, sexuality, organizations, and feminism.

01:512:381. WOMEN IN AMERICAN HISTORY II (3)

Credit not given for both this course and 01:988:390.

Changing status of women from Reconstruction to the present, including the study of work, family, religion, sexuality, organizations, and feminism.

01:512:391,392. HISTORICAL STUDIES (3,3)

Separate sections focusing on different topics at different times and in different areas. Specific titles available at time of registration.

01:512:395. THE ELECTRIC CENTURY (3)

Shaping of American social and cultural life in the 20th century by electrical, electronic, communications, and computer technologies.

01:512:400. HISTORY OF AMERICAN POLITICS (3)

Conduct of politics in the United States, including the origin and development of political parties, characteristic forms of political behavior, and relationship of parties to democratic government.

01:512:402. AMERICAN CONSTITUTIONAL HISTORY TO 1865 (3)

Study of the origins of the American Constitutional system: American revolution; Constitutional Convention of 1787; Bill of Rights, Marshall and Taney courts; slavery, racism, and the Civil War.

01:512:404. AMERICAN CONSTITUTIONAL HISTORY FROM 1865 (3)

Supreme Court's role in interpreting the Constitution from the Civil War and Reconstruction (and passage of the 14th Amendment) to the present. Regulation of the economy and the "right to work"; free speech in war and peace; the New Deal; the due process "revolution"; abortion; affirmative action; freedom of and from religion.

01:512:406. INTRODUCTION TO AMERICAN LEGAL HISTORY (3)

Origin, function, and development of the law in Western civilization, particularly in the United States.

01:512:410. NEW JERSEY HISTORY (3)

New Jersey from its proprietorial beginnings to the present. Emphasis on those factors that have been most influential in determining the character of the state today.

01:512:416. ETHNICITY IN AMERICAN HISTORY (3)

Immigration and ethnicity from colonial times to the present: the migration process, adjustment, cultural persistence, and the changing meaning and manifestations of ethnicity in American society. The rise of the political machine, political reform, ethnic politics, social class and local politics, and changes in governmental structure.

01:512:432. HISTORY OF BUSINESS IN AMERICA (3)

Historical view of the growth and change of business institutions in the United States from the colonial era to the present.

01:512:434. HISTORY OF LABOR MOVEMENT (3)

Impact of industrialization on the workforce of the United States. Economic pressures, technological developments, and ethnic subcultures as related to the social history of the working class.

01:512:438. ORAL HISTORY FIELDWORK (3)

Problems, theories, methods of conducting field interviews, transcribing, editing, and analyzing oral sources. Students document New Jersey families; ethnic communities; labor, business, religious, and political groups.

HISTORY/FRENCH JOINT MAJOR 513

The joint major is an integrated program consisting of 45 credits of interdisciplinary study in the history, literature, culture, and language of France and French-speaking regions. The program is administered jointly by the Departments of History and French, and students should obtain advising and program approval from the undergraduate director in either department.

Major Requirements

The required 45 credits are distributed as follows:

- 18 credits in courses offered by the Department of History:
 - 6 credits in French history (01:510:331, 333, 335, or others by approval)
 - 12 credits in either French history or related subjects, including non-European Francophone cultures. (Related courses in history include 01:510:101, 102, 321, 323, 325, 327, 343, 363, 407, 427, 445; 01:508:322, 422. Other courses may be added with approval of an adviser.)
- 24 credits in courses offered by the Department of French:
 - 9 credits of French language courses. A student may count only one of 01:420:131, 132, 210, and may not count 01:420:101, 102, 105, or 121.
 - 6 credits as follows: 01:420:215 (or 217) and 216 (or 218). (These courses have a prerequisite of 200-level placement or successful completion of 01:420:132.)
 - 9 credits on the 300 and 400 levels, at least 3 of which must be on the 400 level.
- 3 credits from a senior seminar jointly offered by history and French (taught in English, with supplemental materials in French).

With appropriate written approval, a student may count toward the major one college or Faculty of Arts and Sciences honors seminar on an appropriate history/French topic, or one course given outside the history and French departments on a topic directly related to history/French. (For example, 01:082:351, "Art in France," or a seminar on "Paris/Tokyo—1700 to present.")

Of the required eight upper-level courses, at least four must be taken with New Brunswick/Piscataway faculty.

Honors Program

History/French majors with a cumulative grade-point average of 3.0, and a grade-point average of 3.4 in history and French courses, are encouraged to choose and carry out an independent project of advanced study on a topic that interests them, for 6 credits, of which 3 count toward the major. Interested juniors may obtain further information from the departments and should consult an adviser.

Secondary Teaching Certificate

A secondary teaching certificate is available to students who complete the major and a fifth year in the teaching education department. Consult the Office of Teacher Education, Graduate School of Education, no later than the start of the junior year.

Study Abroad

History/French majors are urged to increase their knowledge of French through study abroad. Students who have completed French 01:420:213, 215, and 216 are eligible for study in Rutgers' program in Tours as sophomores or juniors. The French department offers courses from the 213 to the 400 level through its seven-week summer program in Paris.

Eligibility for Departmental Activities

Program majors are eligible to compete for nomination by the French department as "assistant d'anglais" (subsidized program to teach English in French schools for a year), to live in the French House at Douglass or the French floor on the College Avenue campus, and for membership in the Phi Sigma Iota honorary society. A variety of special programs, opportunities, and events also are available through the history department, which will provide information at its offices.

Information may be found at the history department's web site, <http://history.rutgers.edu>, or at the French department's web site, <http://french.rutgers.edu>.

HISTORY/POLITICAL SCIENCE JOINT MAJOR 514

Major Requirements

The joint major is an integrated program consisting of 45 credits from the combined disciplines and not less than 21 credits from each. At least 27 of the 45 credits must be at the 300 level or above. In political science, at least 12 of the credits must be at the 300 to 400 level. The student must take one term of History Seminar (01:506:401 or 402), or Research in History (01:506:471 or 472), or Honors in History (01:506:495 and 496) in the senior year. All courses must be completed with a grade of C or better.

The history component of the joint major requires the following:

- At least one course in each of the following three areas:
 - Global, African, Asian, Latin American, or Native American history (01:506:110-114 and all subject 508 courses)
 - European history (510)
 - United States history (512)
- At least one course in the history of a premodern civilization.
- At least 12 credits must be at the 300 or 400 level.

Each student's program in the joint major must be approved by an adviser in the history department.

HUNGARIAN 535

(See also European Studies 360)

Department of Russian, and East European Languages and Literatures, Faculty of Arts and Sciences

Web site: <http://seell.rutgers.edu>

Minor Requirements

A minor in Hungarian consists of six courses of 3 or more credits each beyond 01:535:102 or 121. Required courses are 01:535:201, 202 (unless placed at a higher level through proficiency examination), and 259. Additionally, at least three courses at the 300 level or above must be completed successfully.

For additional information, visit the department's web site.

Certificate of Proficiency in Hungarian

The department awards a certificate of proficiency upon the awarding of a baccalaureate degree to students who can demonstrate an ability to comprehend, speak, read, and write Hungarian as attested by grades of B or better in 6 credits of work completed in courses conducted in Hungarian at or above the 300 level.

Courses in English

01:535:259. HUNGARIAN LITERATURE AND CIVILIZATION (3)

Survey of the history of Hungarian literature and culture, including the fine arts.

01:535:260. HUNGARIAN CULTURE TODAY (3)

Survey of contemporary cultural, social, and political life in Hungary with emphasis on developments after World War II and the Revolution of 1956.

01:535:360. SPECIAL TOPICS IN HUNGARIAN STUDIES (3)

Credit not given for both this course and 01:861:360. No knowledge of Hungarian necessary. Content varies from term to term.

With permission of program director, course can be taken repeatedly if content is different.

01:535:460. ADVANCED TOPICS IN HUNGARIAN STUDIES (3)

Credit not given for both this course and 01:861:460. No knowledge of Hungarian necessary. Content varies from term to term.

With permission of program director, course can be taken repeatedly if content is different.

Courses in Hungarian

Introductory Courses

Beginners, or students with less than two years of Hungarian in secondary school, normally take 01:535:101,102. Students who have had two or more years of Hungarian in secondary school normally take 01:535:201,202. Students from homes in which Hungarian is spoken but who have not had academic training in the language normally take 01:535:121 before taking 01:535:201,202. Native speakers of Hungarian with academic training in the language must receive departmental permission before enrolling in any course.

01:535:101,102. ELEMENTARY HUNGARIAN (4,4)

Basic course emphasizing the four basic skills of listening, speaking, reading, and writing.

01:535:121. INTENSIVE ELEMENTARY HUNGARIAN (4)

Intensive review of grammar, reading, writing, and vocabulary building together with development of communicative skills.

01:535:201,202. INTERMEDIATE HUNGARIAN (4,4)

Prerequisite: 01:535:102 or 121 or equivalent.

Continued development of language skills in Hungarian.

01:535:301. CONVERSATION (3)

Prerequisite: 01:535:202 or equivalent.

Designed to develop fluency in spoken Hungarian. Emphasis on listening, speaking, and interpretation skills.

01:535:303. INTERNSHIP IN HUNGARIAN (3)

Prerequisites: 01:535:301 or equivalent and permission of instructor.

Development of active language skills through formal instruction and supervised foreign language immersion at the Hungarian Heritage Center.

01:535:305. HUNGARIAN LANGUAGE LABORATORY (1)

Pre- or corequisite: 01:535:259 or 301.

Instructor-guided laboratory practicum based on intensive use of media and designed for the improvement of aural/oral skills. Practice involves the use of text-related and other audio and video material, individual and group work, and recording of student speech for evaluation of pronunciation and fluency.

01:535:321. POETRY (3)

Prerequisite: 01:535:202 or equivalent.

Readings in the history of Hungarian literature. Emphasis on selected poets who led to the development of Hungarian literary consciousness.

01:535:355. TRANSLATION (3)

Prerequisite: 01:535:202 or equivalent.

Translation of advanced-level texts from Hungarian into English. Vocabulary building, linguistic and stylistic problems, contrastive analysis with texts selected from various genres, including the media.

01:535:401. ADVANCED GRAMMAR, STYLISTICS, AND COMPOSITION (3)

Prerequisites: 01:535:301 and permission of instructor.

Intensive study of selected Hungarian grammatical forms and structures. Study and practice in composition. Analysis and imitation of writing styles and forms, vocabulary development, and orthography. Frequent writing exercises.

01:535:402. ADVANCED WRITING WORKSHOP (3)

Prerequisites: 01:535:401 and permission of instructor.

Refined reading and writing skills. Detailed discussion of writing techniques using texts from different media. Advanced work in expository, scientific, technical, or business writing.

01:535:403. ADVANCED INTERNSHIP IN HUNGARIAN (3)

Prerequisites: 400-level Hungarian course with a grade of B or better or equivalent and permission of instructor.

Supervised training in Hungarian business firm, social service agency, or nonprofit organization. Weekly discussions of situations and practices arising from internship experience.

01:535:490. SEMINAR (3)

Prerequisite: Permission of instructor.

Specific problems of Hungarian literature and language. Content varies from term to term. Paper required.

01:535:493,494. INDEPENDENT STUDY (3,3)

Prerequisites: Permission of department and instructor.

Independent reading under supervision of a member of the department.

INDIVIDUALIZED MAJOR

Faculty of Arts and Sciences

Students who wish to pursue individualized majors in the liberal arts and sciences other than those regularly available through the Faculty of Arts and Sciences (FAS)

may make application in writing to the FAS associate dean for undergraduate education. To be considered for approval, applications must include a statement describing the student's educational objectives, a proposed program of courses, and the signatures of three faculty sponsors from at least two different departments. Two of the three faculty sponsors must be members of FAS, and one must agree to serve as major adviser.

An individualized major must consist of at least 36 credits; ordinarily, at least two-thirds of these credits must be taken in FAS courses; three-quarters must be at the 300 level or above; and at least one course must be taken as an independent study in the senior year under the direction of the faculty adviser, for the purpose of integrating the work comprising the major.

Students proposing individualized majors must notify their college dean of that intention and obtain the signature of their college dean on the proposal as verification of notification.

Application forms for the individualized major can be obtained in the offices of the college deans.

Note: Satisfactory completion of this major leads to a bachelor of arts degree.

INTERDISCIPLINARY STUDIES, FAS 556

Faculty of Arts and Sciences

For more information about these courses, contact the Office of the Dean of the Faculty of Arts and Sciences.

Courses

01:556:101. STUDIES IN BIOMEDICAL SCIENCES (3)

Lec. 2 hrs., lab. 3 hrs. Open only to students in the biomedical careers program. Prerequisites: One year of college, including one term of college biology or chemistry, and one term of college math. Enrollment by permission only. Offered only during summer term.

Lectures and laboratory in microbiology including basic morphology, physiology, and genetics of bacteria and viruses, with an introduction to human pathogens. Experience in a clinical department and participation in biomedical research and seminars.

01:556:140. THE GREENHOUSE EFFECT (3)

Lec. 2 hrs., lab. 1.5 hrs. For nonscience majors; not for major credit in science and engineering. Credit not given for both this course and 01:160:140 or 01:450:140 or 01:750:140.

Physical and chemical bases of the "greenhouse effect" and its global impact: biological, climatic, economic, and political. Reducing the emission of "greenhouse" gases; nuclear energy and other alternative energy sources.

01:556:201. STUDIES IN BIOMEDICAL SCIENCES (3)

Lec. 2 hrs., lab. 3 hrs. Open only to students in the biomedical careers program. Prerequisites: Two years of college; two terms of college chemistry; two terms in one of the following areas: college biology, organic chemistry, or physics. Enrollment by permission only. Offered only during summer term.

Introductory biochemistry emphasizing major classes of biomolecules, intermediary metabolism, and gene expression. Selected laboratory projects in bacterial physiology and molecular biology. Instruction in organic chemistry also available where needed. Research/clinical seminars required.

01:556:220. INTRODUCTION TO SCIENCE, TECHNOLOGY, AND SOCIETY (3)

Prerequisite: See program director for details.

Development of sciences and technologies; shifting relations with economics, politics, religion, and philosophy; ways of understanding contemporary public issues.

01:556:301. INDEPENDENT STUDY IN BIOMEDICAL SCIENCES (3)

Lec. 1 hr., lab. 6 hrs. Open only to students in the biomedical careers program. Prerequisites: Three years of college; two terms of college chemistry; two terms of college biology; one term of college calculus; four terms of advanced courses in science, math, statistics, or computer science. Enrollment by permission only. Offered only during summer term.

Lectures and student seminars in experimental genetics; MCAT preparation; required participation in research/clinical seminars; independent research projects with biomedical scientists, culminating in formal student presentations at a public symposium.

01:556:404. TOPICS IN SCIENCE, TECHNOLOGY, AND SOCIETY (1)

Prerequisite: Completion of all other science, technology, and society minor requirements or permission of the program director or a program adviser. Open only to students in the science, technology, and society minor.

Discussion and reading about selected topics in science, technology, and society. Enables students to integrate the variety of perspectives acquired while completing the minor.

01:556:493,494. INDEPENDENT STUDY (3,3)

By permission.

01:556:499. FAS DEAN'S HONOR SEMINAR (3)

Prerequisite: Enrollment in a college Honors Program. Selection for admission is competitive.

Interdisciplinary honors seminar offered by a distinguished faculty member.

ITALIAN 560

Department of Italian, Faculty of Arts and Sciences

Web Site: <http://www.rci.rutgers.edu/~italian>

Chairperson: Laura S. White

Professors:

David R. Marsh, B.A., Yale; M.A., Ph.D., Harvard

Laura S. White, Dottore in Lettere, Trieste; Ph.D., California (Los Angeles)

Associate Professor:

Andrea Baldi, Dottore in Lettere, Firenze; Ph.D., California (Los Angeles)

Assistant Professors:

Elizabeth Leake, Ph.D., California (Berkeley)

Alessandro Vettori, Dottore in Lettere, Firenze; Ph.D., Yale

Major Requirements

The major consists of 10 courses in Italian approved by the department and numbered above 200.

Minor Requirements

The minor in Italian requires six courses in Italian beginning with 01:560:131; at least three of these courses must be at the 300 level or higher. The student's program must be approved by the departmental adviser.

Introductory Courses

Students who already have studied Italian and wish to continue that language are assigned according to their achievement on a placement test. Except for the courses listed under Courses in English, all courses are conducted in Italian.

Certificate of Proficiency in Italian

The Department of Italian awards a certificate of proficiency based on demonstrated ability to comprehend, speak, read, and write Italian as attested by a grade of B or better in 6 credits of work, conducted entirely in Italian, at or above the 300 level.

Note: The Italian certificate is awarded only with or subsequent to the awarding of the baccalaureate degree in an approved major.

Departmental Honors Program

To qualify, a student must have a cumulative grade-point average of 3.0 or better and a grade-point average of 3.4 or better in Italian at the end of the junior year. At that time, the student should apply formally to the chairperson. Candidates for honors must (1) do special reading and write an honors paper in consultation with an assigned director (01:560:495,496 Honors in Italian), and (2) be examined on the honors project by a faculty honors committee.

Summer Program in Italy

Each summer the Department of Italian offers a program in Urbino, Italy, that lasts six weeks and offers an opportunity to earn 6 to 8 credits in an Italian university setting. It also provides excursions and other extracurricular activities to acquaint students more fully with life in Italy. Offerings typically include 01:560:101,102; 131,132; 321,322; 491,492; and a course in literature. Inquiries should be addressed to the Department of Italian.

Study Abroad Program in Italy

Since 1971, Rutgers has offered a program of junior-year studies at the University of Florence, Italy. Competence in oral and written Italian is required. Under the guidance of a Rutgers University resident director, students attend a preliminary six-week intensive language and culture session. Following that, they attend courses at the University of Florence. Students also are able to spend the spring term in Florence as part of the Rutgers Study Abroad Program. (See Study Abroad.) Interested students should apply early in the second term of the sophomore year by contacting the Study Abroad office at Rutgers, The State University of New Jersey, 102 College Avenue, New Brunswick, NJ 08901-8543.

Italian Studies Option

Program Director: Catherine Puglisi

Program Faculty:

Andrea Baldi, *Italian*; Ph.D., California (Los Angeles)
 Rudolph Bell, *History*; Ph.D., CUNY
 T. Corey Brennan, *Classics*; Ph.D., Harvard
 Joseph Consoli, *Art Library*; Ph.D., Rutgers
 Eric Davis, *Political Science*; Ph.D., Chicago
 Archer St. Clair Harvey, *Art History*; Ph.D., Princeton
 Samantha Kelly, *History*; Ph.D., Northwestern
 Elisabeth Leake, *Italian*; Ph.D., California (Berkeley)
 Tod Marder, *Art History*; Ph.D., Columbia
 David Marsh, *Italian*; Ph.D., Harvard
 Sarah Blake McHam, *Art History*; Ph.D., Institute of Fine Arts (New York)
 Paul McLean, *Sociology*; Ph.D., Chicago
 Catherine Puglisi, *Art History*; Ph.D., Institute of Fine Arts (New York)
 Kirk Sanders, *Classics*; Ph.D., Texas (Austin)
 Jonah Siegel, *English*; Ph.D., Columbia
 Sarolta Anna Takács, *Classics*; Ph.D., California (Los Angeles)
 Alessandro Vettori, *Italian*; Ph.D., Yale
 Laura S. White, *Italian*; Ph.D., California (Los Angeles)
 Virginia Yans-McLaughlin, *History*, Ph.D., SUNY (Buffalo)

Major Requirements

This option is designed to provide students with a comprehensive understanding of the peoples, history, language, literature, and arts of Italy and the Italian diaspora from

antiquity through the present. It consists of 36 credits, distributed as follows. Five courses are taken in Italian language and/or literature, beginning at the level of 01:560:131 or higher and continuing with 01:560:132 and 321. The other two courses of the five can be taken either in Italian (01:560:322, 250, 305, 306) or in English, as per the list of electives in Italian. (Students planning on careers demanding a high level of Italian language proficiency are encouraged to take all five courses in Italian.) All students must also take the two core seminars, 01:560:231 (within one term of declaration of major) and 01:560:232, with 1-credit CASE component (after returning from Study Abroad experience). Five additional courses forming a coherent set are to be chosen from the Italian studies course list with the approval of the Italian studies director.

Students are encouraged to choose an option around which elective courses may be selected across disciplines (art history, classics, history, Italian, music). Possible options include a period specialization, such as Ancient Italy, Early Modern Italy, Modern Italy, or a theme, such as the classical tradition, imperial myths, humanism, cultural identity, the role of women. No more than three courses or 9 credits may be taken in any one discipline.

All majors must take part in a study abroad experience. Participation in the Rutgers Study Abroad yearlong or term program in Florence, the Italian department summer program in Urbino, or an approved equivalent fulfills this requirement. Up to 9 credits of the 15 elective credits meeting the approval of the Italian studies director can be taken toward the major in the Rutgers Study Abroad yearlong or term program in Florence or the Italian department summer program in Urbino.

Italian Studies Minor

The Italian studies minor consists of six courses or a total of 18 credits. At least three of the six courses must be taken in Italian language and/or literature beginning at the level of 01:560:131 Intermediate Italian or above. The remaining three courses may be chosen from the Italian studies course list.

Honors in Italian Studies

Students with a 3.0 or higher GPA and an average of 3.5 or higher in the major will be invited to write an honors thesis, which may be supervised by any Italian studies faculty member. The thesis project may earn up to 6 credits toward the Italian studies major.

Courses in English

01:560:231,232. ITALIAN CULTURE (3,3)

First term: Italy's historical, social, and cultural evolution; achievements and contributions to Western civilization. *Second term:* social and political reality of present-day Italy; achievements and major problems.

01:560:241,242. MASTERPIECES OF ITALIAN LITERATURE (3,3)

Readings and discussion of representative works from Dante to Machiavelli in the first term and from Galileo to contemporary writers in the second.

01:560:253. MAJOR WORKS OF THE ITALIAN RENAISSANCE (3)

Historical overview of Italian Renaissance civilization in Florence and other major centers; significant works of representative writers, composers, and artists.

ITALIAN

01:560:254. MODERN ITALIAN LITERARY MASTERPIECES (3)

Comparative study of selected narrative, lyrical, and dramatic works of modern Italy.

01:560:255. THE ITALIAN SHORT STORY (3)

Exemplary masterpieces of Italian short-story writing from the early collections to the classics of the Renaissance and the modern and contemporary masters of the art.

01:560:299. SERVICE LEARNING INTERNSHIP (1)

Corequisite: 01:560:232.

One-credit community-service placement in Italian / American-related field setting.

01:560:304. INTRODUCTION TO ITALIAN LINGUISTICS (3)

History of the Italian language and its position within the Romance languages; problems of the description of modern Italian; linguistic materials.

01:560:315. DANTE AND MEDIEVAL CULTURE (3)

Credit not given for both this course and 01:195:315.

Dante's work in historical perspective: the theological antecedents, the memory of the classical writers, and the new profane literary experience.

01:560:331,332. DANTE IN TRANSLATION (3,3)

Critical study of Dante in translation: the *Divine Comedy* and other works in their medieval context.

01:560:335,336. ITALIAN OPERA (3,3)

Italian opera and its cultural milieu from its origin to the present. Libretti and related literature, recordings, and possible attendance at performances.

01:560:339,340. THE ITALIAN-AMERICAN EXPERIENCE (3,3)

Literature of the struggle for survival, adaptation, and success of Italians in the United States; their search for identity; their impact on the development of American life and culture.

01:560:345,346. THE ITALIAN CINEMA (3,3)

Development of cinema in Italy; its rebirth after World War II and the achievements of the major directors: Visconti, Rossellini, De Sica, Fellini, Antonioni, and others.

01:560:349,350. ITALIAN CINEMA AND LITERATURE (3,3)

May not be used in satisfaction of major requirements. Credit not given for both these courses and 01:560:347,348.

Development of Italian cinema from neorealism to today (Visconti, Fellini, Wertmuller, and others) and the literature that inspired it and was influenced by it.

01:560:356. WOMEN IN ITALIAN LITERATURE AND SOCIETY (3)

Women in the cultural and social milieu of both historical and present-day Italy as portrayed in works of literature and art as well as by today's mass media.

01:560:443. CONTEMPORARY MAN'S SEARCH FOR IDENTITY, DIGNITY, AND JUSTICE: THE DRAMA OF PIRANDELLO AND BETTI (3)

Discussion of several of the authors' most mature and brilliant plays illustrating contemporary man's feeling of confusion, alienation, and outrage, and his eternally unsatisfied search for identity and dignity.

01:560:446. CONTEMPORARY ITALIAN LITERATURE IN TRANSLATION (3)

Study of selected writers illustrating the main currents of 20th-century Italian literature: Pirandello, Montale, Moravia, Pavese, Betti, and others.

Courses in Italian

Prerequisite

Italian 01:560:132 or permission of the department is a prerequisite for all courses in this section at the 300 level or above.

01:560:101,102. ELEMENTARY ITALIAN (4,4)

Not open for credit to students who have had two or more years of secondary school Italian.

Speaking, reading, and writing; oral-aural and written exercises.

01:560:103. INTENSIVE ELEMENTARY ITALIAN (8)

Not open for credit to students who have had two or more years of secondary school Italian or 01:560:101,102.

Speaking, reading, and writing; oral-aural and written exercises.

01:560:105,106. ITALIAN FOR READING KNOWLEDGE (3,3)

Does not satisfy prerequisite for 01:560:131.

Development of reading skills. Texts chosen from the humanities and social sciences.

01:560:107,108. ELEMENTARY ITALIAN LABORATORY (1,1)

Corequisites: 01:560:101 (for 107); 01:560:102 (for 108).

Instructor-guided laboratory practicum based on intensive use of media and designed for the improvement of aural / oral skills.

01:560:121. ITALIAN REVIEW (4)

Prerequisite: Placement test in Italian. Not open to students who have taken 01:560:101,102.

Intensive review and practice of Italian grammar, reading, and writing.

01:560:123,124. CONVERSATION (3,3)

Not open to students who have taken 300-level courses.

For students enrolled in Intermediate Italian and others who wish to develop fluency in speaking.

01:560:131,132. INTERMEDIATE ITALIAN (4,4)

Prerequisite: 01:560:102 or equivalent.

Development of fluency and accuracy in speech and composition; current reading materials.

01:560:136. INTENSIVE INTERMEDIATE ITALIAN (8)

Prerequisite: 01:560:102 or equivalent. Not open for credit to students who have taken 01:560:131,132.

01:560:250. ITALIAN COMPOSITION AND STYLISTICS (3)

Pre- or corequisite: Intermediate Italian (01:560:132) or permission of department.

Study and practice in composition to improve skills for written Italian. Analysis and imitation of writing styles and forms; vocabulary development, syntax; frequent written exercises.

01:560:251. ITALIAN COMPOSITION AND STYLISTICS (3)

Pre- or corequisite: Italian Composition and Stylistics (01:560:250) or permission of department.

Study and practice in composition to perfect skills for written Italian. Analysis and imitation of writing styles and forms; vocabulary development; syntax; frequent written exercises.

01:560:261,262. MASTERPIECES OF ITALIAN LITERATURE (3,3)

Prerequisite: 01:560:132.

Introduction to Italian literature: from Dante to Machiavelli in the first term and from Galileo to the moderns in the second.

06:090:283,284. THE ITALIAN LANGUAGE EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass House. May not be used in satisfaction of major requirements. Course may be repeated.

Development of active language skills through formal instruction and the daily experience of foreign language immersion in the varied activities of the house.

01:560:299. LANGUAGE DORMITORY RESIDENCE (E3)

Prerequisite: Permission of the college housing authority.

Residence in the Italian section of the language dormitory for students interested in the language and culture of Italy. Graded as satisfactory or unsatisfactory.

01:560:305,306. ADVANCED LANGUAGE AND INTRODUCTION TO LITERATURE (3,3)

Refinement of speaking and writing ability. Study of advanced grammar. Introduction to the study of Italian literature.

01:560:317,318. ITALIAN CULTURE TODAY (1.5,1.5)

Contemporary cultural, social, and political life in Italy with emphasis on daily experience. Field trips.

01:560:321,322. ADVANCED CONVERSATION: CIVILIZATION (3,3)

Development of conversational ability through discussion of significant historical, social, and cultural movements in Italy.

01:560:341,342. ITALIAN LITERATURE OF THE 19TH CENTURY (3,3)

Neoclassicism, romanticism, and *verismo*. Readings from Foscolo, Manzoni, Leopardi, Carducci, Pascoli, Verga, D'Annunzio, and others.

01:560:347,348. ITALIAN CINEMA AND LITERATURE (3,3)

Comparative study of selected films and their literary sources and counterparts.

01:560:351,352. ITALIAN LITERATURE OF THE 20TH CENTURY (3,3)

Particular attention to the contemporary period. Readings from Pirandello, Saba, Ungaretti, Montale, Quasimodo, Silone, Pavese, Moravia, Vittorini, and others.

01:560:360. PRACTICAL COMMERCIAL ITALIAN (3)

Pre- or corequisite: Any 300-level course in Italian.

Study of Italian commercial organizations in Italy. Practice in business correspondence. Comparison of financial and commercial terms in English and Italian.

01:560:371. ITALIAN THEATER (3)

Prerequisite: 01:560:250 or 251.

A survey of Italian theatrical masterpieces combined with the creative component of writing and performing a play in Italian by the class.

01:560:381,382. THE CIVILIZATION OF ITALY (3,3)

Prerequisites: 01:560:250, 251.

Interdisciplinary approach to Italy's culture, medieval to contemporary; readings and multimedia lectures highlighting masterpieces of literature, drama, music, and art.

01:959:383,384. JUNIOR YEAR IN ITALY (BA,BA)**01:560:393,394. INDEPENDENT STUDY IN ITALIAN (3,3)**

Independent study and guided research on a topic selected by the student and approved by a faculty member. Individual conferences.

01:560:401,402. ITALIAN LITERATURE OF THE 13TH AND 14TH CENTURIES (3,3)

Intensive study of the most important representatives of the Sicilian and Tuscan schools, with particular attention to the *Dolce Stil Novo* and the works of Dante.

01:560:405. THE THREE CROWNS OF FLORENCE: DANTE, PETRARCH, AND BOCCACCIO (3)

Prerequisite: 01:560:250 or 251.

A course on the three main authors of the 14th century. Readings from the *Divine Comedy*, Petrarch's *Lyrics*, and the *Decameron*.

01:560:409,410. ITALIAN WOMEN WRITERS IN THE 19TH AND 20TH CENTURIES (3,3)

Explores the foremost issues concerning women's writing in the Italian context. Analysis of the historically specific sense of difference in women's literature.

01:560:415,416. DANTE (3,3)

Critical study of Dante's *Divine Comedy* and other works in their medieval context.

01:560:421,422. ITALIAN LITERATURE OF THE RENAISSANCE (3,3)

Italian writers most relevant to the development of the humanistic viewpoint and representative of the creative achievements of the Renaissance: Petrarca, Boccaccio, Poliziano, Machiavelli, Ariosto, Michelangelo, and others.

01:560:431,432. ITALIAN LITERATURE OF THE 17TH AND 18TH CENTURIES (3,3)

Readings from the works of Campanella, Marino, Galileo, Goldoni, Alfieri, Parini, and others.

01:560:491,492. TOPICS IN ITALIAN LITERATURE (3,3)

Directed independent study of a topic selected in consultation with the instructor.

01:560:495,496. HONORS IN ITALIAN (3,3)

Special readings and honors paper prepared under the direction of the departmental honors committee.

JAPANESE 565

(See also Asian Studies 098 and East Asian Languages and Area Studies 214)

Department of Asian Languages and Cultures, Faculty of Arts and Sciences

Program Adviser: Senko Maynard

Professor:

Senko Maynard, B.A., *Tokyo Gaikokugo Daigaku (Tokyo University of Foreign Studies)*; M.A., *Illinois (Chicago Circle)*; Ph.D., *Northwestern*

Associate Professor:

Paul Schalow, B.A., *Hampshire College*; M.A., Ph.D., *Harvard*

An interdisciplinary major with a concentration on Japan is available through the program in East Asian Languages and Area Studies 214.

Minor in Japanese

A minor in Japanese consists of six courses in Japanese beyond the elementary level. Of the six, at least three courses must be at the 300 level or above. Courses taught in English generally are not counted toward the minor requirement.

Courses in English**01:565:241. JAPANESE LITERATURE IN TRANSLATION (3)**

Selected poetry and fiction from 700 to 1885. Major concerns of the Japanese literary tradition and ideas and images of man, love, nature, and time that have continued to influence Japanese culture.

01:565:242. MODERN JAPANESE LITERATURE IN TRANSLATION (3)

Japanese literature from 1885 to the present. The influence of Western cultural ideals on modern Japanese literature. Emphasis on the novel as a literary form. Readings from Kawabata, Sōseki, Mishima, Akutagawa, and Tanizaki.

01:565:250. LANGUAGE AND SOCIETY IN JAPAN (3)

How language and society interact in contemporary Japan. Sociolinguistic methods applied to various issues: honorific/humble forms, language and gender, conversation strategies.

01:565:315. JAPANESE LITERATURE AND THE ATOMIC BOMB (3)

The atomic bomb in Japanese poetry, fiction, art, and film. Emphasis on problems of memory and representation of the bombings at Hiroshima and Nagasaki.

01:565:317. LOVE, HONOR, AND SUICIDE IN JAPANESE LITERATURE (3)

Credit not given for both this course and 01:195:332.

Suicide as a theme in Japanese literature from the eighth century to the present, with comparisons to the theme of suicide in Western literature. Selected texts from Western literature read to gain a comparative perspective. Films shown as well.

01:565:320. THE SAMURAI TRADITION IN JAPANESE LITERATURE AND FILM (3)

The samurai warrior as a focus of cultural and political expression in Japanese literature and cinema. Supplementary readings of secondary sources on samurai culture and thought.

01:565:350. JAPANESE FILM (3)

Japanese film in its cultural and historic contexts and as a Japanese art form. Viewing and analysis of films by Kurosawa, Mizoguchi, Ozu, and others.

01:565:360. JAPANESE WOMEN WRITERS (3)

Fiction and poetry by Japanese women from the ninth century to the present. Focus on women's early role in inventing and shaping literary genres, and the reemergence of a feminine tradition in the 20th century.

01:565:370. COMMUNITY AND DIFFERENCE IN JAPANESE LITERATURE AND FILM (3)

Charting and analyzing 20th-century filmic and literary portrayals of what is "foreign" and "Japanese." Racism, ethnicity, sexuality, and gender in the Japanese arts.

01:565:460. SEMINAR IN JAPANESE FILM (3)

Prerequisite: 01:565:350 or permission of instructor.

Major directors, development of Japanese film genres, Japanese film studies in English-language scholarship, relationship between film and national identity.

01:565:483. FROM TEXT TO IMAGE IN JAPANESE ART (3)

Credit not given for both this course and 01:082:483.

Explores the profound influence of classical literature on the arts of Japan, especially painting. Analysis of the historical and literary meaning of the literary works; investigation of the fusion of text and image.

Courses in Japanese

01:565:101,102. ELEMENTARY JAPANESE (4,4)

Introduction to grammar and writing systems; practice in speaking, reading, and writing.

01:565:103. INTRODUCTION TO JAPANESE WRITING (3)

Corequisite: 01:565:101.

History, types, and styles of Japanese writing systems: *hiragana*, *katakana*, and *kanji*. Pen and brush (calligraphy) practices. Some basic creative writing.

01:565:104. SPEAKING ELEMENTARY JAPANESE (3)

Prerequisite: 01:565:101.

Elementary speaking and communicating skills based on limited vocabulary and grammar. Conversational phrases and idiomatic expressions associated with various social situations and interpersonal relationships.

01:565:201,202. INTERMEDIATE JAPANESE (4,4)

Prerequisite: 01:565:102 or equivalent.

Study of grammar, development of fluency in speaking; practice in reading and composition.

01:565:213,214. JAPANESE CONVERSATION AND CULTURE (3,3)

Prerequisite: 01:565:202 or permission of instructor.

Develops speaking skills; guided conversation practice, vocabulary building, oral reports. Texts and discussion topics relating to Japanese everyday life, language, culture, and society.

01:565:301,302. ADVANCED JAPANESE (3,3)

Prerequisite: 01:565:202 or permission of instructor.

Refinement of reading, writing, speaking, and listening skills. Advanced grammar and extensive vocabulary. Reading written text from various genres.

01:565:303,304. ADVANCED JAPANESE FOR BUSINESS (3,3)

Prerequisite: 01:565:202 or permission of department.

Principles of interpersonal communication in Japanese business and international negotiation. Specialized vocabulary, social skills, and business correspondence. Reading and discussion of business, culture, and society.

01:565:313,314. ADVANCED JAPANESE CONVERSATION AND CONTEMPORARY ISSUES (3,3)

Prerequisite: 01:565:302 or 304 or permission of department.

Development of conversational skills and strategies. Class discussion, oral presentation, and debate based on cultural/social materials taken from books, journals, newspapers, and audio and videotapes.

01:565:325. ADVANCED JAPANESE GRAMMAR AND RHETORIC (3)

Prerequisite: 01:565:301 or permission of instructor.

Analysis and study of complex sentence structures, rhetorical strategies and principles, paragraph and text structures of a variety of genres. Reading assignments to appreciate different styles of written Japanese—essays, narrative, newspaper text, etc.

01:565:361,362. JAPANESE POPULAR CULTURE (3,3)

Prerequisite: 01:565:302 or permission of instructor.

Critical approaches to Japanese popular culture and advanced discussion in Japanese of a broad range of popular genres, including manga, anime, film, commercials, and music.

01:565:401,402. ADVANCED READINGS IN JAPANESE (3,3)

Prerequisite: 01:565:302 or permission of instructor.

Selected readings from modern Japanese. Materials from literature, humanities, and social sciences. Discussion and some writing exercises.

01:565:411. READINGS IN CLASSICAL JAPANESE: BUNGO (3)

Prerequisite: 01:565:301 or permission of instructor.

Introduction to classical literary Japanese. Study of verbal and adjectival suffixes and particles through sample sentences. Selected readings in classical prose. Some translation exercises.

01:565:451,452. TRANSLATING JAPANESE POPULAR MEDIA (3,3)

Prerequisite: 01:565:302 or equivalent.

Theory and practical techniques of translation from Japanese to English, with particular focus on monthly news and literary magazines, film, anime, manga, and song.

01:565:470. SEMINAR IN JAPANESE LANGUAGE AND LITERATURE (3)

Prerequisite: 01:565:402 or permission of instructor.

Readings and research on topics in Japanese language and literature.

01:565:495,496. INDEPENDENT STUDY (3,3)

Prerequisites: Permission of instructor and department.

Independent reading under supervision of a member of the department.

01:565:497,498. HONORS IN JAPANESE (6,6)

Both terms must be completed to receive credit.

JEWISH STUDIES 563

Department of Jewish Studies, Faculty of Arts and Sciences

Web Site: <http://jewishstudies.rutgers.edu>

Chairperson: Gary A. Rendsburg, *Jewish Studies and History*; Ph.D., New York

Professors:

Myron J. Aronoff, *Political Science and Anthropology*; Ph.D., California (Los Angeles)

Maurice Elias, *Psychology*; Ph.D., Connecticut

Ziva Galili, *History*; Ph.D., Columbia

Phyllis Mack, *History*; Ph.D., Cornell

Alicia Ostriker, *English*; Ph.D., Wisconsin

Chaim I. Waxman, *Sociology*; Ph.D., New School for Social Research

Yael Zerubavel, *Jewish Studies and History*; Ph.D., Pennsylvania

Associate Professors:

William Donahue, *German*; Ph.D., Harvard

Leslie E. Fishbein, *American Studies*; Ph.D., Harvard

Judith Gerson, *Sociology*; Ph.D., Cornell

Barbara Reed, *Journalism*; Ph.D., Ohio

Nancy Sinkoff, *Jewish Studies and History*; Ph.D., Columbia

Assistant Professors:

Dina LeGall, *History*; Ph.D., Princeton

Jeffrey Shandler, *Jewish Studies*; Ph.D., Columbia

Azzan Yadin, *Jewish Studies*; Ph.D., California (Berkeley)

Part-Time Faculty:

Edna Bryn-Norman, M.A., Tel Aviv and Johns Hopkins

Lily Levy, M.Sc., Tel Aviv

Orly Moshenberg, M.A., Rutgers

The Department of Jewish Studies offers a comprehensive examination of all aspects of Jewish experience from an interdisciplinary perspective. The department addresses the historical, social, cultural, religious, and political life of Jews in the modern period and throughout the ages. Jewish studies courses are open to all students.

Jewish studies offers a combination of courses, both those which originate in the department and cross-listed courses that originate in other departments. Courses of both types may be counted toward the Jewish studies major or minor. Credit is not given for both a Jewish studies course (01:563:___) and its corresponding cross-listed course.

For further information about the Department of Jewish Studies, contact the office housed at the Allen and Joan Bildner Center for the Study of Jewish Life, Rutgers, The State University of New Jersey, 12 College Avenue, New Brunswick, NJ 08901-1282, 732/932-2033, or send email to jsdept@rci.rutgers.edu. Information also is posted on the department's web site.

Major Requirements

Jewish studies majors must complete 12 3-credit courses in Jewish studies with a grade of C or better in each course. Out of the 12 courses, 6 3-credit courses must be at the 300 level or above. The major requirements include:

1. 01:563:201 Jewish Society and Culture I: From Antiquity to the Middle Ages (3);
01:563:202 Jewish Society and Culture II: The Modern Experience (3);
2. Two courses in one Jewish language or literature (either Hebrew or Yiddish) (6–8). See further details below under Jewish languages;
3. 01:563:464 Jewish Studies Seminar (3), normally taken the second term of the junior year;

4. Seven courses, of which at least four must be in one of the areas of concentration (see 1–5, below). At least two of the seven courses must be outside the selected area of concentration (21). For the Jewish literature area of concentration, two courses in Jewish language must be above the elementary level. At least four courses must be in literature, at least two of which must be in the original language. Students who place above the intermediate level in a Jewish language will be required to take a total of four literature courses in the original language.

Language Courses

- 01:563:101,102 Elementary Modern Hebrew (4,4)
- 01:563:103,104 Elementary Modern Yiddish (4,4)
- 01:563:131,132 Intermediate Modern Hebrew (4,4)
- 01:563:133,134 Intermediate Modern Yiddish (4,4)
- 01:563:210,211 Advanced Modern Hebrew (3,3)
- 01:563:371 Contemporary Hebrew Literature and Media (3)

Areas of Concentration

1. Jewish History and Society

- 01:470:370 (563:370) Germany Confronts the Holocaust (3)
- 01:506:373 (563:373) History of Jewish Women (3)
- 01:506:375 (563:375) Jewish Immigrant Experience (3)
- 01:508:300 (563:300) The Arab-Israeli Conflict (3)
- 01:508:316 (563:316) Israeli Women: Historical and Literary Perspectives (3)
- 01:510:261 (563:261) History of the Holocaust (3)
- 01:510:385 (563:385) The History of Eastern European Jewry (3)
- 01:510:386 (563:343) History of Zionism (3)
- 01:512:359 (563:359) Blacks and Jews in American History (3)
- 01:563:260 (510:260) Remembering the Shtetl (3)
- 01:563:306 (050:306) American Jews and the Media (3)
- 01:563:345 (512:345) American Jewish History and Culture (3)
- 01:563:389 (510:389) Jewish Power, Jewish Politics (3)
- 01:563:390 (510:390) Jewish Memory (3)
- 01:790:351 (563:351) Contemporary Politics in the Middle East (3)
- 01:790:352 (563:352) Israeli Politics (3)
- 01:920:408 (563:408) Sociology of American Jewish Religious Movements (3)

2. Jewish Literature

Literature in the Original Language

- 01:563:315 Topics in Rabbinic Literature (3)
- 01:563:371 Contemporary Hebrew Literature and Media (3)
- 01:563:372 Introduction to Modern Hebrew Literature (3)
- 01:563:431 Hebrew Bible (in Hebrew) (3)
- 01:563:433,434 Biblical Literature (3,3)
- 01:563:437 Rabbinic Literature (in Hebrew / Aramaic) (3)
- 01:563:471 Readings in Modern Hebrew Literature (3)
- 01:563:472 The Hebrew Novel (3)
- 01:563:484 Love and Desire in Hebrew Prose and Poetry (3)
- 01:563:485 Israeli Literature and Society (3)

Literature in Translation

- 01:050:332 (563:332) The American Jewish Experience in Literature (3)
- 01:563:241 Introduction to Rabbinic Literature (3)
- 01:563:243,244 Modern Jewish Literature (3,3)
- 01:563:254 Hasidic Tales (3)
- 01:563:320 The Hebrew Bible (3)
- 01:563:365,366 Holocaust Literature in Translation (3,3)
- 01:563:367 American Jewish Writers of the 20th Century (3)
- 01:685:490 (563:480) Modern Middle Eastern Literature in Translation (3)

3. Jewish Culture

- 01:050:332 (563:332) The American Jewish Experience in Literature (3)
- 01:050:335 (563:335) Jewish-American Women: Contested Lives (3)
- 01:082:380 (563:383) Modern Jewish Art (3)
- 01:195:393 (563:393) Israeli Theater and Film (3)
- 01:470:380 (563:380) German-Jewish Literature and Culture (3)
- 01:563:225 Jewish Music (3)
- 01:563:226 History of Jewish Art (3)
- 01:563:254 Hasidic Tales (3)
- 01:563:260 (510:260) Remembering the Shtetl (3)
- 01:563:304 Jewish Cinema and Fiction (3)
- 01:563:306 American Jews and the Media (3)
- 01:563:310 (508:310) Israeli Culture (3)
- 01:563:345 (512:345) American Jewish History and Culture (3)
- 01:563:367 American Jewish Writers of the 20th Century (3)
- 01:563:375 Jewish Immigrant Experience (3)
- 01:563:386 Modern Yiddish Literature and Culture (3)
- 01:563:390 (510:390) Jewish Memory (3)

4. Religion and Thought

- 01:351:321 (563:321) Studies in Literature and Spirituality (3)
- 01:563:241 Introduction to Rabbinic Literature (3)
- 01:563:250 Jewish Mysticism and Kabbalah (3)
- 01:563:254 Hasidic Tales (3)
- 01:563:315 Topics in Rabbinic Literature (3)
- 01:563:340 The Dead Sea Scrolls (3)
- 01:563:431 Hebrew Bible (in Hebrew) (3)
- 01:563:433,434 Biblical Literature (3,3)
- 01:563:437 Rabbinic Literature (in Hebrew/Aramaic) (3)
- 01:730:311 (563:311) Classical Jewish Philosophy (3)
- 01:730:312 (563:312) Modern Jewish Philosophy (3)
- 01:730:404 (563:404) Spinoza (3)
- 01:920:408 (563:408) Sociology of American Jewish Religious Movements (3)

5. Israel Studies

- 01:195:393 (563:393) Israeli Theater and Film (3)
- 01:506:375 (563:375) Jewish Immigrant Experience (3)
- 01:508:300 (563:300) The Arab-Israeli Conflict (3)
- 01:508:316 (563:316) Israeli Women: Historical and Literary Perspectives (3)
- 01:510:386 (563:343) History of Zionism (3)
- 01:563:310 (508:310) Israeli Culture (3)
- 01:563:371 Contemporary Hebrew Literature and Media (3)
- 01:563:471 Readings in Modern Hebrew Literature (3)

- 01:563:472 The Hebrew Novel (3)
- 01:563:484 Love and Desire in Hebrew Prose and Poetry (3)
- 01:563:485 Israeli Literature and Society (3)
- 01:685:490 (563:480) Modern Middle Eastern Literature in Translation (3)
- 01:790:351 (563:351) Contemporary Politics in the Middle East (3)
- 01:790:352 (563:352) Israeli Politics (3)

Minor Requirements

The minor in Jewish studies consists of six 3-credit courses (18 credits), including the two Jewish studies core courses—01:563:201 Jewish Society and Culture I: From Antiquity to the Middle Ages (3) and 01:563:202 Jewish Society and Culture II: The Modern Experience (3). Of the four remaining courses, three must be at the 300 level or above. Elementary- and intermediate-level language courses may not be counted toward the minor. A grade of C or better is required in all courses that count toward the minor.

Departmental Honors Program

Jewish studies majors may apply for admission to the Jewish studies honors program at the end of their junior year. To be considered, students must have a cumulative grade-point average of 3.0 or better, and 3.4 or better in Jewish studies courses. The honors program offers qualified students the opportunity to pursue a research project in depth for the entire senior year under the supervision of a faculty adviser. Approval of the honors project is required for admission to the honors program. Honor students enroll in 01:563:496 and 497 Jewish studies honors courses, and upon the completion of their honors project must pass an oral examination given by their adviser and a second reader.

Jewish Languages

Jewish studies majors are required to take two courses in one Jewish language or literature (either Hebrew or Yiddish) at Rutgers (this holds for transfer students as well). All students entering the department with prior Hebrew or Yiddish language experience are required to take a language placement test. Students who place out of the elementary language level will take courses based on their placement, or they may choose to study another Jewish language for two terms. Those students placing into higher level courses must take courses taught in the original language (and not, for example, literature in translation courses). Please note special language requirements in the Jewish literature area of concentration.

Courses**Core Courses****01:563:201. JEWISH SOCIETY AND CULTURE I: FROM ANTIQUITY TO THE MIDDLE AGES (3)**

Credit not given for both this course and 01:506:271.

Examines the social, economic, religious, and political experiences of the Jewish people, from the Biblical world of the ancient Near East until the Middle Ages.

01:563:202. JEWISH SOCIETY AND CULTURE II: THE MODERN EXPERIENCE (3)

Credit not given for both this course and 01:506:272.

Examination of Jewish life from the breakdown of traditional society in Europe in the 1700s until the rise of the modern state of Israel in the 20th century.

01:563:464. JEWISH STUDIES SEMINAR (3)

Prerequisite: 01:563:201 or 202 or permission of instructor. Credit not given for both this course and 01:506:464.

Explores a major theme in Jewish studies and allows students to pursue their own research project, culminating in a paper.

Courses in Hebrew**01:563:101,102. ELEMENTARY MODERN HEBREW (4,4)**

Prerequisite: Placement test to determine level of language competence. Not open for credit to students who have had two or more years of secondary school Hebrew. Credit not given for both this course and 01:685:101,102.

Speaking, reading, and writing; oral-aural and written exercises.

01:563:131,132. INTERMEDIATE MODERN HEBREW (4,4)

Prerequisite: 01:563:102 or placement test. Credit not given for both courses and 01:685:131,132.

Development of language skills; selected readings.

01:563:210,211. ADVANCED MODERN HEBREW (3,3)

Prerequisite: 01:563:132 or placement test. Credit not given for both this course and 01:685:210,211.

Intensive training in Hebrew grammar and reinforcement of already acquired higher-level language skills: speaking, listening, comprehension, reading, and writing. Text analysis includes newspaper articles and essays.

01:563:371. CONTEMPORARY HEBREW LITERATURE AND MEDIA (3)

Prerequisite: 01:563:211 or placement test. Credit not given for both this course and 01:685:371.

Addresses current issues facing Israeli society as reflected in Israeli literature and press. Texts include poetry, songs, essays, newspaper articles, and films.

01:563:372. INTRODUCTION TO MODERN HEBREW LITERATURE (3)

Prerequisite: 01:563:211 or placement test. Credit not given for both this course and 01:685:372.

Introduces students to major writers of modern Hebrew literature with the goal of developing their own critical reading and writing skills. Readings include modern Hebrew poetry, prose, and plays.

01:563:431. HEBREW BIBLE (3)

Prerequisite: 01:563:211, placement test, or permission of instructor.

Introduces students to issues of biblical translation and analysis of linguistic and literary aspects of the Bible. Text in Hebrew.

01:563:433,434. BIBLICAL LITERATURE (3,3)

Prerequisite: 01:563:211 or placement test.

Study of selective narrative portions from the Prophets, Psalms, and other Biblical writings; comparing Hebrew and English texts and utilizing classical and modern commentaries.

01:563:437. RABBINIC LITERATURE (3)

Prerequisite: 01:563:211 or placement test.

Study of selected portions of the Mishnah, Midrash, and Talmud; comparing Hebrew / Aramaic and English texts.

01:563:471. READINGS IN MODERN HEBREW LITERATURE (3)

Prerequisite: 01:563:372 or placement test. Credit not given for both this course and 01:685:471.

Reading and analysis of modern Hebrew poetry and short prose, with an emphasis on major Israeli authors.

01:563:472. THE HEBREW NOVEL (3)

Prerequisite: 01:563:372 or placement test. Credit not given for both this course and 01:685:472.

Reading and analysis of the modern Hebrew novel, with an emphasis on major Israeli authors.

01:563:484. LOVE AND DESIRE IN HEBREW PROSE AND POETRY (3)

Prerequisite: 01:563:372 or placement. Course taught in Hebrew. Credit not given for both this course and 01:685:484.

Explores the themes of love and desire in modern Hebrew prose, poetry, and film. Special attention paid to how the literature and films handle the issues of love, desire, and personal relationships in contemporary Israeli culture.

01:563:485. ISRAELI LITERATURE AND SOCIETY (3)

Prerequisite: 01:563:372 or placement. Course taught in Hebrew. Credit not given for both this course and 01:685:485.

Traces the development of modern Israeli literature, from the establishment of the State of Israel in 1948 to the present day. Of special interest will be the manner in which these stories define the quintessential Israeli hero and contend with the question of Israeli identity.

Courses in Yiddish**01:563:103,104. ELEMENTARY MODERN YIDDISH (4,4)**

Not open for credit to students who have had two or more years of secondary school Yiddish or equivalent.

Speaking, reading, and writing; oral-aural and written exercises.

01:563:133,134. INTERMEDIATE MODERN YIDDISH (4,4)

Prerequisite: 01:563:104 or placement test.

Practice in oral and written composition and selected readings in Yiddish prose and poetry.

Courses in English**01:563:225. JEWISH MUSIC (3)**

Introduction to biblical cantillation, medieval Jewish music, liturgical and Hasidic melodies, Yiddish folk songs, and the music of modern Israel.

01:563:226. HISTORY OF JEWISH ART (3)

Synagogue frescoes and architecture, medieval illuminations, Jewish ritual art, and Israeli art.

01:563:241. INTRODUCTION TO RABBINIC LITERATURE (3)

Introduces students to the Rabbinic period and rabbinic texts, including the Mishnah, the Talmud, and midrashic literature.

01:563:243,244. MODERN JEWISH LITERATURE (3,3)

Works of great Jewish writers from Russia, Germany, France, Italy, and America, from late 19th century to date, in translation.

01:563:250. JEWISH MYSTICISM AND KABBALAH (3)

Credit not given for this course and 01:840:250.

Survey of Jewish mystical traditions from the early rabbinic traditions to the central text of kabbalistic literature, the Zohar, in 13th-century Spain.

01:563:254. HASIDIC TALES (3)

Legends and stories; a study of the ideals and values of the Ba'al Shem Tov and other Hasidic masters from the 18th century to the present.

01:563:260. REMEMBERING THE SHTETL (3)

Credit not given for both this course and 01:510:260.

How Jewish life in eastern European small towns has been documented and recalled from the 19th century to the present in fiction, art, ethnography, film, and memoir.

01:563:304. JEWISH CINEMA AND FICTION (3)

Comparative study of Jewish themes in Yiddish, Israeli, American, and European films (with English subtitles) and their literary sources; discussions and readings in English.

01:563:306. AMERICAN JEWS AND THE MEDIA (3)

Credit not given for both this course and 01:050:300.

Examines the roles that news media (film, recordings, radio, television, computers) plays in American Jewish life throughout the 20th century.

01:563:310. ISRAELI CULTURE (3)

Credit not given for both this course and 01:508:310 or 01:685:310.

Formation of modern Israeli culture since the beginning of Zionist immigration to Palestine; its historical, social, literary, and artistic expressions.

KOREAN

01:563:315. TOPIC IN RABBINIC LITERATURE (3)

Examines a wide array of topics in classical Rabbinic literature.

01:563:320. THE HEBREW BIBLE (3)

Study of selected narrative and prophetic portions of the Bible in English.

01:563:340. THE DEAD SEA SCROLLS (3)

Introduction to the history and scholarship surrounding the Dead Sea Scrolls.

01:563:345. AMERICAN JEWISH HISTORY AND CULTURE (3)

Credit not given for both this course and 01:512:345.

History of the Jews in the New World, beginning in the middle of the 17th century, and then focusing on the United States until the present.

01:563:365,366. HOLOCAUST LITERATURE IN TRANSLATION (3,3)

Interpretation of works dealing with the Holocaust by leading Hebrew, Yiddish, and European writers. Appropriate films used.

01:563:367. AMERICAN JEWISH WRITERS OF THE 20TH CENTURY (3)

Cultural, literary, attitudinal aspects of American Jewish fiction: Abe Cahan, Henry Roth, Daniel Fuchs, Saul Bellow, Bernard Malamud, and others.

01:563:381,382. TOPICS IN JEWISH STUDIES (1.5,1.5)

Seven-week courses; may be taken consecutively or separately.

Topics vary. Topics announced when course is offered.

01:563:384. YIDDISH LITERATURE AND CULTURE FROM TRADITION TO ENLIGHTENMENT (3)

Prerequisites: 01:563:202, 260, or permission of instructor. Credit not given for this course and 01:470:384.

Traces the cultural dynamics of Ashkenazic Jews in 16th- to 19th-century Europe through Yiddish religious writing, folktales, fiction, memoirs, and poetry. All readings in translation.

01:563:386. MODERN YIDDISH LITERATURE AND CULTURE (3)

Yiddish prose, poetry, folklore, theater, and film in Europe and America from the late 19th century to the Holocaust. Knowledge of Yiddish not required.

01:563:389. JEWISH POWER, JEWISH POLITICS (3)

Prerequisite: At least one course in Jewish or European history after 1500.

Credit not given for both this course and 01:510:389.

Political relationship of the Jewish community to the Gentile authorities among whom they lived, from Rome in 70 C.E. to the contemporary period. Continuities and discontinuities of traditional conceptions of Jewish political behavior and rebellion and accommodation to structures of power in varying historical contexts.

01:563:390. JEWISH MEMORY (3)

Credit not given for both this course and 01:510:390.

Explores various forms of Jewish memory shaped in response to major events, including myths, holidays, monuments, pilgrimages, testimonies, museums, literature, and film.

01:563:395,396. TOPICS IN JEWISH STUDIES (3,3)

Selected themes in Jewish studies. Topics announced when course offered.

01:563:460. JEWISH STUDIES INTERNSHIP (3)

Special note: Open only to junior and senior Jewish studies majors and minors.

Supervised work in historical society, archive, museum, communal agency, etc.; 112 hours required. Assigned faculty member supervises and evaluates student's project/paper and sponsor's assessment.

01:563:482,483. ADVANCED TOPICS IN JEWISH STUDIES (1.5,1.5)

Seven-week courses; may be taken consecutively or separately.

Highly specialized advanced courses open to both undergraduate and graduate students. Specific titles available at registration.

01:563:490. STUDIES IN JEWISH HISTORY (3)

In-depth study of selected issues and problems in Jewish history and culture.

01:563:491,492. INDEPENDENT STUDY AND RESEARCH (3,3)

Individual reading research project under the guidance of a Jewish studies faculty member on a topic of interest to the student. Final written report required.

01:563:495. SPECIAL TOPICS IN LITERATURE (3)

Selected themes in Hebrew, Yiddish, or other Jewish literature. Topics announced when course offered.

01:563:496,497. SENIOR HONORS (3,3)

Prerequisite: Permission of department director.

Independent research project under supervision of a faculty member, culminating in an honors thesis that must be approved by the program.

Student Awards

Leonard and Adele Blumberg Student Award
Andrew Feinerman Memorial Scholarship Fund
Louis Fishman Memorial Student Support Fund
Betty and Julius Gillman Memorial Student Support Fund
Sandra and Stephen M. Greenberg Student Award
Gertrude and Jacob Henoch Memorial Student Support Fund
Herbert and Jacqueline Klein Fund
Rudolph and Mary Solomon Klein Undergraduate Scholarship
Norma U. and David M. Levitt Student Award
Bernice and Milton I. Luxemburg Student Award Fund
Margolin Family Student Award for Study in Israel
Maurice Meyer III and Irma Meyer Endowed Student Support Fund
Harold and Betty Perl Endowed Scholarship
Reitman Family Student Award Fund
Ruth Feller Rosenberg Endowed Student Award Fund
Baruch S. and Pearl W. Seidman Scholarship Fund

JOURNALISM AND MEDIA STUDIES 567

(See the School of Communication, Information and Library Studies section)

JUNIOR YEAR ABROAD

(See Study Abroad 959)

KOREAN 574

(See also Asian Studies 098, East Asian Languages and Area Studies 214)

Department of Asian Languages and Cultures, Faculty of Arts and Sciences

Associate Professor:

Young-mee Yu Cho, B.A., Seoul National; Ph.D., Stanford

Assistant Professor:

Ann Choi, B.A., Smith; Ph.D., California (Los Angeles)

An interdisciplinary major with a concentration on Korea is available through the program in East Asian Languages and Area Studies 214.

Minor Requirements

The minor in Korean requires six language courses in Korean beyond the elementary level, of which at least three courses must be at the 300 level or above.

Courses in English

01:574:210. INTRODUCTION TO KOREAN CULTURE (3)

Survey of Korean culture and society in a historical context. Exploration into the connection between language and culture. Examination of modern Korean novels and their social and historical relevances.

01:574:220. KOREAN LITERATURE IN TRANSLATION I (3)

Introduction to Korean literature in English translation from the early times to the 19th century, emphasis on historical and cultural contexts of major works.

01:574:221. KOREAN LITERATURE IN TRANSLATION II (3)

Prerequisite: 01:574:220.

An overview of Korean literature of the 20th century. Explorations of historical backgrounds and cultural contexts of major works of various genres.

01:574:250. KOREAN LANGUAGE IN CULTURE AND SOCIETY (3)

No prior knowledge of Korean language is required.

Survey of Korean language in relation to its culture and society. Examination of language use (diglossia, language and gender, metaphors, the writing system).

Courses in Korean

01:574:101,102. ELEMENTARY KOREAN (4,4)

Introduction to sound, grammar, and writing system of modern Korean; practice and exercises in speaking, reading, and writing.

01:574:201,202. INTERMEDIATE KOREAN (4,4)

Prerequisite: 01:574:102 or equivalent.

Development of oral proficiency, practice in reading comprehension, composition, study of grammar, and vocabulary building.

01:574:301,302. ADVANCED KOREAN (3,3)

Prerequisite: 01:574:202 or equivalent.

Study of advanced vocabulary and grammar through reading texts in various styles. Practice in composition and refinement of oral proficiency.

01:574:303. ADVANCED KOREAN FOR BUSINESS I (3)

Prerequisite: 01:574:202 or equivalent.

Reading and discussion of business, culture, and society; specialized vocabulary, social skills, and practice in business correspondence.

01:574:304. ADVANCED KOREAN FOR BUSINESS II (3)

Prerequisite: 01:574:303 or equivalent.

Continuation of 01:574:303 with further reading and discussion of business, culture, and society.

01:574:401,402. ADVANCED READINGS IN KOREAN (3,3)

Pre- or corequisite: 01:574:302 or equivalent.

Selected readings from modern Korean materials, including fiction, essays, newspapers, and journal articles. Discussion and some writing exercises.

01:574:410,411. READINGS IN KOREAN LITERATURE (3,3)

Prerequisite: 01:574:302 or equivalent.

Selections from representative literary works from premodern to the contemporary period. Exploration of major poetry, drama, and fictional narratives in the context of the historical and cultural changes.

01:574:450. KOREA IN TRANSLATIONS: MODERN LITERATURE AND FILM (3)

Prerequisite: 01:574:302 or equivalent.

Translations as a generative process. Korean literary fiction and poetry of the 20th century and their versions in English translations. Films as another mode of translation with its own language and grammar.

01:574:471. KOREA IN TRANSLATIONS: CONTEMPORARY MEDIA (3)

Prerequisite: 01:574:302 or equivalent.

Expository and journalistic writings with attention to contemporary language of the mass media. Broadcast news, documentary films, as well as newspaper and magazine articles studied and translated into English.

01:574:495,496. INDEPENDENT STUDY IN KOREAN (3,3)

Prerequisites: Permission of instructor and department.

Independent reading under supervision of a member of the department.

01:574:497,498. HONORS IN KOREAN (6,6)

Both terms must be completed to receive credit.

Individualized honors projects for students who have fulfilled all requirements for minor in Korean or major in East Asian Languages and Area Studies.

LABOR STUDIES 575

Department of Labor Studies and Employment Relations,
School of Management and Labor Relations

Web Site: <http://www.smlr.rutgers.edu/BALER/bach.html>

Director: David Bensman

Dean: Barbara Lee

Professors:

Eileen Appelbaum, B.A., Temple; M.A., Ph.D., Pennsylvania

David Bensman, B.A., Chicago; Ph.D., Columbia

Joseph Blasi, B.S., Pittsburgh; Ed.D., Harvard

Dorothy Sue Cobble, B.A., California (Berkeley); M.A., San Francisco State; Ph.D., Stanford

Adrienne Eaton, B.A., Michigan; M.A., Ohio State; Ph.D., Wisconsin

Charles Heckscher, B.A., M.A., Ph.D., Harvard

Douglas Kruse, B.A., Harvard; M.A., Nebraska; Ph.D., Harvard

Paula B. Voos, B.A., Whitman; M.A., Portland State; Ph.D., Harvard

Associate Professors:

Carola Frege, B.A., Freiburg; M.Sc., Ph.D., London School of Economics

Jeffrey Keefe, B.A., Villanova; Ph.D., Cornell

Saul Rubinstein, B.A., Swarthmore; M.B.A., Ed.M., Harvard; Ph.D., Massachusetts Institute of Technology

Lisa Schur, B.A., Harvard; J.D., Northeastern; Ph.D., California (Berkeley)

Assistant Professor:

Niki Dickerson, B.A., Trinity; M.A., Ph.D., Michigan

The undergraduate labor studies program aims to provide students with an opportunity to learn more about the nature of work, the problems of working people, and what workers have done, both individually and collectively, to address those problems. Its introductory courses offer anyone interested in the world of work (or likely to have a job) the opportunities to develop a realistic view of the dominant institutions, practices, and values of the workforce and to think about how the work world can change to meet the challenge of a new century. Intermediate courses enable students to acquire a range of specific competencies useful to employment, labor relations, and human resource

specialists. They also allow students to participate in a series of cultural and disciplinary dialogues providing alternative perspectives on work and the wider society. Advanced courses provide students majoring in labor studies with an opportunity to consolidate what they have learned about the nature of work through more in-depth study of a particular topic or topics through either independent work or the senior seminar. The B.A. in Labor Studies is offered jointly with the School of Management and Labor Relations and the New Brunswick/Piscataway undergraduate colleges. Labor studies majors are eligible to apply for a five-year bachelor of arts/master of labor and industrial relations degree program.

Major Requirements

The major consists of 36 credits in labor studies. In place of 6 of these credits, students may substitute related courses from other programs. (A list of these courses is available from the department.) The following three courses are required: either 37:575:100 or 101 Introduction to Labor Studies and Employment Relations; 37:575:395 Perspectives on Labor Studies; one advanced course taken in the senior year, chosen from 37:575:450, 490, 494, 495, 496, 497, 498, or 499.

Admission

Students seeking to major in labor studies and employment relations must apply for admission to the School of Management and Labor Relations through a separate procedure from the one through which they apply to the university.

Students must be admitted to Douglass College, Livingston College, Rutgers College, or University College to be accepted into the School of Management and Labor Relations. Students are required to write a personal statement as part of their application and to have earned both a 2.0 grade-point average or better in their college work taken to date and a C or better in Introduction to Labor Studies and Employment Relations (either 575:100 or 101). For information on the application process, contact the Department of Labor Studies and Employment Relations, 50 Labor Center Way, New Brunswick, NJ 08901.

Minor Requirements

The minor consists of 18 credits in labor studies and must include either 37:575:100 or 101 Introduction to Labor Studies and Employment Relations.

Departmental Honors Program

To qualify, a student must have completed 18 credits in labor studies. The student also must have attained a cumulative grade-point average of 3.0 or better and a grade-point average of 3.4 or better in the major at the end of the junior year. At that time, the student should formally apply to the director. Candidates who are accepted are required to complete a research project under the direction of a faculty member, culminating in a written honors paper, and are examined orally on their project by a faculty honors committee.

Courses

37:575:100. INTRODUCTION TO LABOR STUDIES AND EMPLOYMENT RELATIONS (3)

Credit not given for both this course and 37:575:101.

Work, workers, and organizations that represent employees; class, race, gender, and work; legal, labor market, and human resource issues.

37:575:101. INTRODUCTION TO LABOR STUDIES AND EMPLOYMENT RELATIONS (4)

Credit not given for both this course and 37:575:100.

Same as 100 but with special emphasis on skill development through role-playing.

37:575:201,202. DEVELOPMENT OF THE LABOR MOVEMENT (3,3)

Each of these courses may be taken separately in any order, or together during the same term.

Two-term overview of the history, philosophy, structure, and activities of trade unions and other worker organizations and their impact on the American economic, political, and social fabric.

37:575:230. HUMAN RESOURCE ISSUES IN THE WORKPLACE (3)

Introduction to various human resource issues in the context of HR decisions; compensation staffing, benefits, employee motivation, performance appraisal, equal opportunity, and other concerns.

37:575:301. COMPARATIVE LABOR MOVEMENTS (3)

Introduction to the study of unionism as a worldwide phenomenon, with emphasis upon the similarities and differences between the American labor movement and foreign labor movements; the major problems confronting unions in selected European, Asian, Latin American, and African nations.

37:575:302. COMPARATIVE SOCIAL AND LABOR LEGISLATION (3)

Comparative study of social and labor legislation in foreign countries. Emphasis on the content of labor laws, their administration, the economic and social conditions that promoted them, the economy of nations, and effects of the laws on the relationship of labor and industry.

37:575:303. BLACK WORKERS IN AMERICAN SOCIETY (3)

Examination of the historical relationships between black workers and the American labor movement; analysis of problems facing black workers at the workplace.

37:575:305. THEORIES OF THE LABOR MOVEMENT (3)

Various theories that influenced the development of labor unions; focus on the works of Marx, Lenin, Commons, Perlman, Gompers, Sorel, and the Webbs.

37:575:307. LATINO WORKERS IN THE UNITED STATES (3)

Role of Latino workers in U.S. society and the U.S. economy; impact of the new migration on the U.S. labor market and social policy.

37:575:308. DYNAMICS OF WORK AND WORK ORGANIZATIONS (3)

Examination of the social dynamics of economic institutions and their corresponding work relations; corporate organization and trade union structure; selected problems of technological change and industrialization; human relations in industry and the changing bases of managerial authority.

37:575:309. WORKING WOMEN IN AMERICAN SOCIETY (3)

Focus on the contemporary experience of working women, including an exploration of current legal strategies and social policies created to address their concerns.

37:575:310. LABOR RELATIONS IN PROFESSIONAL SPORTS (3)

Labor relations systems in professional sports in the United States; unique institutional aspects and common features of union-management and employee relations.

37:575:312. CONFLICT AND CONFLICT RESOLUTION IN THE WORKPLACE (3)

How people resolve work-related grievances: bargaining, grievance procedures, mediation, arbitration, demonstrations, strikes, and industrial violence. Examines union and nonunion workplaces.

37:575:313. TECHNOLOGICAL CHANGE AND THE WORLD OF WORK (3)

Application of computer and microchip technologies coupled with enormous range and flexibility of developing telecommunication systems and their effect on workers, labor unions, industry, and labor-management relations.

37:575:314. COLLECTIVE BARGAINING (3)

Comprehensive study of the development of collective bargaining; the nature and scope of contracts; the changing character of collective bargaining processes through negotiation, legislation, the courts, and arbitration; the substantive issues in bargaining, including the implications for public policy.

37:575:315. EMPLOYMENT LAW (3)

Analysis of legislation designed to protect working and living standards of American workers and its implementation by government agencies. Examination of pensions, occupational safety and health, fair employment practices, social security, and unemployment insurance.

37:575:317. CONTINGENT AND NONSTANDARD WORK (3)

Issues arising from employment and relationships that have nonstandard aspects; temporary, leased, or part-time employees; independent contractors and owner-operators.

37:575:319. LABOR UNION STRUCTURE AND ADMINISTRATION (3)

Structure, government, and internal administration of national unions, confederations of unions, and regional and local unions in the United States. Discussion of problems of union democracy.

37:575:320. IMMIGRANT WORKERS AND THEIR RIGHTS (3)

Immigration and immigrant workers in American society; history; current legal rights; related public policy issues; immigrants in unions and community organizations.

37:575:322. AMERICAN LABOR UNIONS IN POLITICS (3)

Role of the labor movement in the political process from the New Deal to the present, including an analysis of its ideology, its legislative agenda, its political action, and its impact on public policy.

37:575:325. ECONOMICS OF THE EMPLOYMENT RELATIONSHIP (3)

Fundamentals of labor economics presented. Economic dimensions of public policies and human resource administration.

37:575:335. WOMEN AND THE LABOR MOVEMENT (3)

Relation between women and unions, historically and in the present; how unions can and have addressed issues such as pay equity, equal opportunity, sexual and racial harassment, organizing women workers, and moving women into union leadership.

37:575:338. OCCUPATIONAL SAFETY AND HEALTH (3)

Federal and state regulatory laws and enforcement; the basic issues involved in safety and health at the workplace; and worker, union, and employer response to the issues.

37:575:340. AMERICAN LABOR LAW (3)

Examination of the present legal arrangements governing the conduct of labor relations in the United States; historical development and impact of common law, legislative statutes, and court decisions on the growth of the labor movement.

37:575:345. ORGANIZATIONAL BEHAVIOR AND WORK (3)

Behavior by individuals and groups in the workplace; group and intergroup dynamics; organizational culture, structure, and change; leadership, employee motivation, job performance, and feedback.

37:575:350. PUBLIC SECTOR COLLECTIVE BARGAINING (3)

Study of employer-employee relations in the public sector; federal executive orders and state and municipal legislation regulating public employers and employee organizations; procedures for bargaining unit certification, representation, and recognition; dispute resolution techniques.

37:575:355. CURRENT LABOR PROBLEMS (3)

Selected number of labor issues that have particular relevance in contemporary society.

37:575:360. UNION ORGANIZING (3)

Introduction to and critical analysis of union-organizing strategies and tactics.

37:575:361. LABOR AND CORPORATE RESTRUCTURING (3)

Study of how management efforts to decentralize organizational structures and reduce employment levels affect industrial relations, work and workers, skill levels and training needs, and productivity and the macroeconomy.

37:575:362. THE WORK-EDUCATION CONNECTION (3)

What do workers need to know to be prepared for the jobs being generated by the global economy? How do the American secondary- and higher-education systems prepare workers for changing jobs?

37:575:363. LABOR UNIONS AND THE GLOBAL ECONOMY (3)

Changes in the global economy and their effects on the living standards and bargaining power of American workers and their unions. Alternative strategies for dealing with globalization.

37:575:364. DIVERSITY IN THE WORKPLACE (3)

Focuses on how the increasing demographic diversity of American workplaces affects social relations, cultural dynamics, and organizational effectiveness.

37:575:395. PERSPECTIVES ON LABOR STUDIES (3)

Open only to labor studies majors who have completed at least 15 credits of labor studies course work.

In-depth study of the classic works on the nature of labor, the relationship of work to other social functions, and the relationship between workers and management.

37:575:401. RESEARCH METHODS IN LABOR STUDIES (3)

Nature and sources of labor statistics; alternative research methods used in the study of labor problems.

37:575:407. WORKERS' MOVEMENT IN NEW JERSEY (3)

Examination of workers' movements at state and local levels in New Jersey, using library resources, interviews, participant observations, and movement archives. Research results document the development of the New Jersey labor movement.

37:575:450. SENIOR SEMINAR IN LABOR STUDIES (3)

Open only to labor studies majors who have completed at least 21 credits of labor studies course work.

In-depth study of a labor studies topic. Intensive reading and discussion designed to integrate student experiences in the labor studies major.

37:575:490. INTERNSHIP IN LABOR EDUCATION (BA)

Prerequisite: Permission of instructor.

Students work under the supervision of individual faculty members and other experienced labor educators to develop and/or teach courses and workshops.

37:575:491,492,493. TOPICS IN LABOR STUDIES (3,3,3)

In-depth examination of particular topics concerning work organization, worker problems, or worker organizations.

LATIN AMERICAN STUDIES

37:575:494,495. INDEPENDENT STUDY AND RESEARCH (BA,BA)

Prerequisite: Permission of instructor.

Individual reading and research project under the guidance of a labor studies faculty member on a topic of interest to the student.

37:575:496,497. INTERNSHIP IN LABOR STUDIES (BA,BA)

Prerequisite: Permission of instructor.

Students work as staff members in a labor union or labor-related organization (public or private), in an industrial relations unit in private industry, or as employees in a position that permits observation of and participation in a labor union at the grassroots level. Allows students to apply conceptual knowledge learned in the classroom to actual situations and to acquire new skills and knowledge.

37:575:498,499. HONORS IN LABOR STUDIES (BA,BA)

Prerequisite: Permission of department. Open only to honors students.

Individual research and reading project under the guidance of a member of the department.

LATIN 580 (See Classics)

LATIN AMERICAN STUDIES 590

Department of Spanish and Portuguese, Faculty of Arts and Sciences

Web Site: <http://rulas.rutgers.edu>

Director: Tomás Eloy Martínez, Spanish and Portuguese; Ph.D. (Honoris Causa), John F. Kennedy (Buenos Aires), Universidad Nacional de Tucumán (Argentina)

Academic Director: Marcy Schwartz, Spanish and Portuguese; Ph.D., Johns Hopkins

Affiliated Faculty:

Robert J. Alexander, *Economics (Emeritus); Ph.D., Columbia*

Herman L. Bennett, *History; Ph.D., Duke*

César Braga-Pinto, *Spanish and Portuguese; Ph.D., California (Berkeley)*

Kim D. Butler, *Africana Studies; Ph.D., Johns Hopkins*

José Camacho, *Spanish and Portuguese, Linguistics; Ph.D., Southern California*

Nancy G. Diaz, *Spanish (Newark); Ph.D., Rutgers*

Carla Giaudrone, *Foreign Languages and Literatures (Camden); Ph.D., New York*

Peter Guarnaccia, *Human Ecology; Ph.D., Connecticut*

Robert R. Kaufman, *Political Science; Ph.D., Harvard*

Elpidio Laguna-Díaz, *Classical and Modern Languages (Newark); Ph.D., CUNY (Graduate Center)*

Jorge Marcone, *Spanish and Portuguese; Ph.D., Texas*

Carlos Raúl Narváez, *Spanish and Portuguese; Ph.D., Columbia*

Isabel Nazario, *Associate Vice President for Academic and Public Partnership in the Arts and Humanities; M.F.A., CUNY (Queens College)*

Julio Nazario, *Assistant Dean for Academic Programs, Livingston College; M.F.A., Rutgers (Mason Gross School of the Arts)*

Margaret H. Persin, *Spanish and Portuguese; Ph.D., Indiana*

Ana Yolanda Ramos, *Anthropology and Puerto Rican and Hispanic Caribbean Studies; Ph.D., Columbia*

Asela Rodríguez de Laguna, *Classical and Modern Languages (Newark); Ph.D., Illinois*

Phillip Rothwell, *Spanish and Portuguese, Linguistics; Ph.D., Cambridge*

Thomas Rudel, *Human Ecology; Ph.D., Yale*

Josefina Saldaña Portillo, *English; Ph.D., Stanford*

Liliana Sanchez, *Spanish and Portuguese, Linguistics; Ph.D., Southern California*

Marcy Schwartz, *Spanish and Portuguese; Ph.D., Johns Hopkins*

Benigno Sifuentes-Jáuregui, *Comparative Literature and American Studies; Ph.D., Yale*

Adolfo Snaidas, *Spanish and Portuguese; Ph.D., Rutgers*

Thomas M. Stephens, *Spanish and Portuguese; Ph.D., Michigan*

Camilla Stevens, *Spanish and Portuguese; Ph.D., Kansas*

Lorrian Reed Thomas, *History (Camden); Ph.D., Pennsylvania*

Jonathan Tittler, *Foreign Languages and Literatures; Ph.D., Cornell*

Gail Triner-Besosa, *History; Ph.D., Columbia*

Lourdes Vázquez, *Latin America, Africa, and Anthropology Librarian; M.A., New York*

Silvio Waisbord, *Communications; Ph.D., California (San Diego)*

Mark Wasserman, *History; Ph.D., Chicago*

Eugene N. White, *Economics; Ph.D., Illinois*

The program in Latin American studies of the Department of Spanish and Portuguese is dedicated to academic preparation in the areas of literature, political science, social sciences, history, art, and economics. In these domains, the program encourages consideration of philosophies through which Latin America and the United States can maintain a two-way dialogue that contributes to the mutual enrichment of each. Issues of importance include diversity among Latin American countries; the resurgence of violence; and other themes of interest to future intellectuals, politicians, economists, academicians, and specialists in the humanities.

Major Requirements

The interdisciplinary major in Latin American studies consists of 36 credits, of which 18 credits must be at the 300 level or above, completed with a grade of C or better. The program's core course is 01:590:201 Introduction to Latin American Civilization and Culture. There are four other required courses: 01:508:262 Modern Latin America, 01:836:301 Hispanic Communities in the United States, 01:790:312 Change in Latin America, and 01:590:401 or 402 Seminar in Latin American Studies. Majors must take a minimum of 6 credits from each of the following three areas: history, social sciences, and Spanish-American or Brazilian literature not in translation. Majors also must demonstrate language proficiency in Spanish equivalent to 01:940:325 or above and in Portuguese equivalent to 01:810:201 or 203 or above; majors may substitute proficiency in French equivalent to 01:420:213 for that of Portuguese with the permission of the program director. Course selections for the major must be approved by the program director or a program adviser.

Minor Requirements

The interdisciplinary minor in Latin American studies consists of 18 credits, of which 9 must be at the 300 level or above, completed with a grade of C or better. The required courses are 01:590:201 Introduction to Latin American Civilization and Culture, 01:508:262 Modern Latin America, 01:836:301 Hispanic Communities in the United States, and 01:790:312 Change in Latin America. The minor must include at least 6 credits from two of the following three areas: history, social sciences, and Spanish-American or Brazilian literature not in translation. Minors also must demonstrate language proficiency in Spanish equivalent to 01:940:325 or above or in Portuguese equivalent to 01:810:201 or 203 or above. Course selections for the minor must be approved by the program director or a program adviser.

Departmental Honors Program

To be eligible for honors work, students must have a cumulative grade-point average of 3.25 or higher and an average of 3.5 or higher in Latin American studies courses. Students are admitted to the departmental honors program by recommendation of a faculty adviser and permission of the director. Students must write an honors thesis. Departmental honors also are awarded to those students maintaining a grade-point average of 3.5 in the major and who complete the requirements for the Henry Rutgers Honors Thesis, the Mabel Smith Douglass Honors Project, the Paul Robeson Project, or the University College Honors Program. Interested students are encouraged to apply at the department toward the end of their junior year. More detailed information is available in the departmental office.

For additional information about the program, consult the department's web site.

Courses

01:590:101. LATIN AMERICA: A BRIEF INTRODUCTION (1,5)

Introduction to the construct called Latin America: geography, peoples and groups, cultures, history, languages, music, art, and literature. Focus may vary, according to instructor interest.

01:590:201. INTRODUCTION TO LATIN AMERICAN CIVILIZATION AND CULTURE (3)

Survey of Latin American culture from the colonial period to the present day. Consideration of chronicles of the Indies, documents on independence and nation formation, and canonical texts of modern literature and thought.

01:590:367. THE AFRO LATIN AMERICAN EXPERIENCE (3)

Credit not given for both this course and 01:508:367.

Examines profound impact of African diaspora on Latin American societies where persons of African descent represent significant minorities and numerical majorities. Explores how Afro-Latin Americans remember the past and experience the present.

01:590:393. ARCHITECTURE AND SOCIETY IN LATIN AMERICA (3)

Prerequisites: 01:082:105,106 or 276 or 391, 392 or permission of instructor.

Credit not given for both this course and 01:082:393.

Architecture in Latin America after the Conquest; emphasis on urban development from the Laws of the Indies to Brasilia in social and historical contexts.

01:590:401,402. SEMINAR IN LATIN AMERICAN STUDIES (3,3)

Credit not given for both these courses and 01:940:403,404.

Correlation of studies through analysis of particular problems or periods in Latin American civilization. Reading, reports, discussions.

01:590:410. AFRICAN-BRAZILIAN HISTORY (3)

Credit not given for both this course and 01:014:410.

Overview of history of largest African diaspora community in the world. Encourages critical analysis of major issues in African-Atlantic diaspora studies. Principal scholarship supplemented with selected readings in literature, oral history, African-Brazilian movement documents, and iconography.

01:590:460. RACE, CLASS, AND ETHNICITY IN LATIN AMERICA (3)

Prerequisite: One term of 01:940:300-level of Spanish literature or permission of department. Credit not given for both this course and 01:940:460.

Investigation of racioethnic conflicts and racial formation and renegotiation in Latin America through literary and nonliterary sources. Consideration of class, racism, miscegenation, marginalization, and ethnonym.

01:590:497,498. HONORS IN LATIN AMERICAN STUDIES (BA,BA)

Prerequisites: 01:940:394 or equivalent, and permission of Latin American Studies Program Committee. Open only to seniors.

Preparation for comprehensive examination in Latin American studies and research paper prepared under direction of honors committee.

01:590:499. READINGS IN LATIN AMERICAN STUDIES (3)

Prerequisites: Permission of Latin American Studies Program Committee and instructor. May not be taken for more than one term.

Independent readings under faculty supervision. Project must be one not already treated in a formal course.

LAW

Since law schools do not require that any special undergraduate curriculum be followed, no one program can be described as the best preparation for law school. Students should seek a broad foundation in the liberal arts. Many students preparing for law school choose majors in political

science, history, English, modern languages, philosophy, or programs in mathematics and the sciences. In selecting a course of study, students should consult a prelaw adviser at their college.

LIFE SCIENCES

The following majors are available in the Division of Life Sciences:

Biological Sciences 119

Cell Biology and Neuroscience 146

Genetics 447

Molecular Biology and Biochemistry 694

Students interested in the life sciences also may consider related tracks within major programs offered by the Department of Chemistry (biological option), the Department of Exercise Science and Sport Studies, and the Department of Psychology (specialization in behavioral neuroscience).

Division of Life Sciences, Faculty of Arts and Sciences

Web Site: <http://lifesci.rutgers.edu>

Dean: Kenneth J. Breslauer

Director, Office of Undergraduate Instruction: Jamshid Rabii

Acting Chairperson, Department of Cell Biology and Neuroscience: Wise Young

Chairperson, Department of Genetics: Jay A. Tischfield

Chairperson, Department of Molecular Biology and Biochemistry: Vincent Pirrotta

The Division of Life Sciences coordinates, fosters, and integrates the instructional and research activities of a broad range of faculty with interests in the biological sciences. The principal units of the division include three departments: Cell Biology and Neuroscience, Genetics, and Molecular Biology and Biochemistry, as well as two sections, the biological chemistry section of the Department of Chemistry and Chemical Biology, and the biopsychology and behavioral neuroscience section of the Department of Psychology. The division's primary goal is to provide a high caliber of interdisciplinary teaching and research in the life sciences as it trains the next generation of teachers, researchers, and future health professionals.

Instruction in the life sciences has undergone enormous changes over the past 10 to 15 years. These changes reflect the intellectual revolution of the last two decades, as well as technical advances that have expanded greatly the tools available to life scientists. Today, students majoring in the life sciences at Rutgers–New Brunswick/Piscataway experience an exciting atmosphere of learning that exposes them to the concepts and methods of these intellectual and technological advances. The students have open to them a plethora of learning avenues, ranging from thought-provoking lecture presentations to original and cutting-edge research opportunities in state-of-the-art laboratories. A first-class faculty, modern laboratory equipment, and powerful computers used in teaching reflect the division's commitment to provide its students with the best learning environment.

The division offers a wide spectrum of majors for students interested in the life sciences. These options range from a division-based major in biological sciences, designed to provide a general life sciences education, to department-

based majors in cell biology and neuroscience, genetics and microbiology, and molecular biology and biochemistry, aimed at providing specialized training, with a strong emphasis on research. Graduates of the division will be highly competitive for a range of postbaccalaureate opportunities, including graduate education and research, health-professions training, and biomedical and biotechnological research positions, as well as teaching careers in the sciences.

The first two years of the student's tenure at Rutgers is expected to revolve around the life sciences core curriculum, a series of basic offerings designed to provide the general background required for pursuing upper-division courses in any of the individual majors. Regardless of the major chosen, students are encouraged to participate in independent study within a research laboratory in order to take advantage of the rich expertise of the many life sciences faculty in New Brunswick/Piscataway. The division also has a highly developed advising system, with many faculty advisers available to work with individual students in their selection of courses and completion of their major requirements.

Students may not major in more than one of the following majors in the Division of Life Sciences: Biological Sciences (119), Cell Biology and Neuroscience (146), Genetics (447), or Molecular Biology and Biochemistry (694). Furthermore, students majoring in one of these four majors may not minor in Biological Sciences (119).

For additional information and announcements about the Division of Life Sciences, please visit the division's web site.

Life Sciences Core Curriculum

The life sciences core curriculum is a set of courses required for all majors in the division of life sciences listed here. The core includes a series of introductory- and intermediate-level courses in the physical and life sciences forming a foundation of knowledge necessary to understand modern biology and to prepare for the more advanced courses required for each major. Following are core courses:

1. 01:119:101-102 General Biology (4,4)
2. 01:160:161-162 General Chemistry (4,4) or 01:160:163-164 Honors General Chemistry (4,4)
3. 01:160:171 Introduction to Experimentation (1)
4. 01:160:307-308 Organic Chemistry (4,4) or 01:160:315-316 Principles of Organic Chemistry (4,4)
5. 01:160:311 Organic Chemistry Laboratory (2)
6. 01:447:380 Genetics (4)
7. 01:640:135, 138 Calculus for the Biological Sciences (4,4) or 01:640:151-152 Calculus for Mathematical and Physical Sciences (4,4)
8. 01:750:203-204 General Physics (3,3) *
9. 01:750:205-206 General Physics Laboratory (1,1) *

Biological Sciences 119

Web Site: <http://lifesci.rutgers.edu/~ougi>

Director: Jamshid Rabii

Director of Advising: Martha Haviland

* 01:750:193-194 (4,4) or 01:750:201-202 (5,5) may be substituted for 203-204 (3,3) plus 205-206 (1,1).

Lecturers:

Christopher W. Brey, B.S., Wisconsin (Milwaukee); M.S., Dakota State; Ph.D., Montana State

Frank H. Deis, B.A., Rice; Ph.D., Medical College of Virginia

Martha B. Haviland, B.A., Rutgers; M.S., A.M., Ph.D., Michigan

Anne Keating, B.S., M.S., Ph.D., Rutgers

Diana W. Martin, B.S., Florida Atlantic; M.S., Florida; Ph.D., Texas (Austin)

Joanne Siu Stolen, B.S., Michigan; M.S., Seton Hall; Ph.D., Rutgers

Gregg Transue, B.S., Pennsylvania State; M.S., Ph.D., Rutgers

Anthony J. Uzwiak, B.A., Ph.D., Rutgers

Entry Requirements of the Major

Students wishing to major in biological sciences must have completed two terms of general biology, including laboratory, with a grade of C or better in each course (or have the permission of the department). Both terms of general biology must have been completed at the same institution or on the same campus at Rutgers. No more than two courses with a grade of D may be used to fulfill the requirements of the major.

Majors Requirements

The program in biological sciences, administered through the Division of Life Sciences Office of Undergraduate Instruction, is intended to provide a broad and comprehensive training in modern biology. This course of study is recommended for those who wish to study biology as part of their liberal arts education, preparing them for a career in one of the health professions, graduate studies in biology, a teaching career in secondary schools (courses in education also are required), as well as employment in various areas of the life sciences. If a student wishes to concentrate his or her studies in a specific area of biology, he or she should consider a major offered by one of the departments in the Division of Life Sciences or in Cook College. Faculty advisers are available to assist each student with course selection and program requirements.

A minimum of 20 credits of course work from among general biology, genetics, and life sciences electives must be completed in residence. In other words, no more than 16 credits in this part of the major requirements may be transferred from any institution outside of Rutgers–New Brunswick/Piscataway. This rule is intended to assure that students receiving degrees from Rutgers–New Brunswick/Piscataway have taken a minimum number of courses in their major with this faculty. Please keep in mind that although a course may transfer from another institution into one of the Rutgers–New Brunswick/Piscataway colleges, it will not necessarily be accepted toward the major in biological sciences. Therefore, all transfer courses must be evaluated and accepted by the Advising Office of the Office of Undergraduate Instruction in order to count toward the major. As indicated earlier, students must complete both terms of general biology at the same institution or on the same campus of Rutgers before becoming eligible to declare the biological sciences major.

The course requirements for the biological sciences major are divided into two sections, the life sciences core courses and the life sciences electives.

Required Life Sciences Core Courses (47 credits)

01:119:101-102 General Biology (4,4)

01:160:161-162 General Chemistry (4,4) or 01:160:163-164 Honors General Chemistry (4,4)

01:160:171 Introduction to Experimentation (1)

- 01:160:307-308 Organic Chemistry (4,4) or
 01:160:315-316 Principles of Organic
 Chemistry (4,4)
 01:160:311 Organic Chemistry Laboratory (2)
 01:447:380 Genetics (4)
 01:640:135, 138 *Calculus for the Biological Sciences (4,4)
 or 01:640:151-152 Calculus for Mathematical
 and Physical Sciences (4,4)
 01:750:203-204 General Physics (3,3) †
 01:750:205-206 General Physics Laboratory (1,1) †

Life Sciences Electives (24 credits)

It is highly recommended that students meet with life sciences adviser in the Division of Life Sciences Office of Undergraduate Instruction when planning their elective courses. It is important that the courses taken complement each other as much as possible and are not merely a collection of unrelated topics.

The electives must include at least three laboratory courses, only one of which may be satisfied by research work. General biology laboratory and “library research” do not qualify for this requirement. A minimum of six courses (18 credits) must be at the 300 or 400 level, including at least three separate laboratory courses or three courses with a laboratory component. The laboratory associated with genetics (382 or equivalent), if taken, may be used to satisfy one of the three laboratory requirements.

No course at the 100 level may be used to satisfy the life sciences elective requirements. A maximum of 6 credits of independent study/research/honors research may be used toward the 24 elective credits. Please keep in mind that a minimum grade-point average of 2.8 is required to enroll in an independent study/research course in biological sciences. Research courses can satisfy only one of the three laboratory requirements, regardless of number of credits. Courses taken on a *Pass/Fail* basis may not be used to satisfy requirements for the major in biological sciences.

The elective courses must include at least one course each from the Cell Biology and Neuroscience 146, Genetics 447, Molecular Biology and Biochemistry 694, and Natural Resource Management 704 subject areas. A list of approved courses in subject areas in addition to those in the Division of Life Sciences (Biological Sciences 119, Cell Biology and Neuroscience 146, Genetics 447, and Molecular Biology and Biochemistry 694) will be published by the Advising Office of the Office of Undergraduate Instruction. It is recommended strongly that students consult this list, which is available on the web site, prior to registering for their courses. Generally, acceptable courses from other departments on any campus of Rutgers University have a year of general biology as a prerequisite; however, there are exceptions. It is imperative for students to consult the published list and/or meet with an adviser. Cooperative education credits may not be used to satisfy requirements for the major in biological sciences, unless prior approval has been obtained from the Office of Undergraduate Instruction.

Minor Requirements

The minor requires six courses of at least 3 credits each in life sciences subjects, including general biology. Both terms of general biology must be completed at the same institu-

tion or on the same campus at Rutgers. No other course at the 100 level may be used to satisfy the minor. Three of the six required courses must be taken at Rutgers–New Brunswick/Piscataway. A maximum of 3 credits of research in a life sciences subject may be used toward the minor. A minimum of three courses at the 300 level or above is required. Only life sciences courses acceptable for the biological sciences major may be used for the minor. Courses in chemistry, mathematics, or physics do not count toward the minor. A grade-point average of 2.0 or better in courses credited toward the minor is required. No more than one course with a grade of *D* may be used to fulfill the requirements of the minor.

Independent Study and Research in Biology

A minimum cumulative grade-point average of 2.8 is required for a student to register for an independent study/research course in biological sciences. A maximum of 6 credits of laboratory-based independent study, research, or honors projects may be used to fulfill the elective credits requirement in biology. The independent study/research form, available from the Advising Office of the Office of Undergraduate Instruction, must be completed and signed by the professor in whose laboratory the student will study, prior to initiating the research project. A special permission number from the Advising Office of the Office of Undergraduate Instruction is necessary for registration. Students may not earn academic credit for laboratory projects for which they are being paid. Students wishing to apply research credits from other departments toward the major in biological sciences must get approval from the Advising Office of the Office of Undergraduate Instruction, Division of Life Sciences, prior to beginning their research project.

Rutgers University/University of Medicine and Dentistry of New Jersey–Robert Wood Johnson Medical School Joint Bachelor of Art/Medical Degree (B.A./M.D.) Program

The purpose of this joint program is to permit integration of basic medical sciences into advanced natural science courses in preparing students for the clinical portion of their professional education. Specially selected students will obtain bachelor's and medical degrees in an eight-year program of study taken at Rutgers University and Robert Wood Johnson Medical School (RWJMS). Completion of the program in seven years is possible through accelerated study.

This program is open to all students enrolled at Rutgers University who are U.S. citizens or permanent residents of the United States. It is not directly associated with any one college within the university. Admission is a two-stage and highly competitive process. In the first stage, undergraduate students are admitted into the program by an executive committee consisting of Rutgers and RWJMS faculty. Eligible applicants are sophomores at any of the undergraduate colleges of Rutgers University. Applicants from the Newark and Camden campuses, if admitted, are required to transfer to a college on the New Brunswick/Piscataway campus. The executive committee reviews applications and selects those students who are deemed most qualified for the program. The second stage occurs typically after the fourth year of study. It is the responsibility of the RWJMS Admissions Committee to review the credentials of students recommended by the Joint Program Executive Committee.

* With permission, 01:640:138 (4) may be substituted by 01:960:379 Basic Probability and Statistics (3) or 401 Basic Statistics for Research (3).

† 01:750:193-194 (4,4) or 01:750:201-202 (5,5) may be substituted for 203-204 (3,3) plus 205-206 (1,1).

Students who are deemed to have met the academic and nonacademic standards of the program will be recommended to the RWJMS Admissions Committee. The purpose of this second, noncompetitive review is to ascertain that the student has maintained adequate academic and nonacademic qualities appropriate for retention in the medical school. It is expected that students will have grades of *A* or *B* (*Honors* or *High Pass*) in courses taken at both universities. The final decision rests with the RWJMS Admissions Committee. Upon approval by this admissions committee, the student will be permitted to continue into the fifth year of study and will be matriculated formally as a candidate for the M.D. degree in RWJMS.

Applicants to the B.A./M.D. program must be in their fourth term at Rutgers University. Applications will not be accepted until April 1 in order to allow time for as much information as possible to be transmitted. Applications will not be accepted after May 25. Decisions are expected to be made by July 1. Applicants must have completed a minimum of 40 credits of which 30 credits must be at Rutgers, must have been in residence at Rutgers a minimum of one year, and must have a minimum cumulative grade-point average of 3.5 by the end of the third term. The applicant must have completed, or be in the process of completing by the end of the fourth term, two terms of biology with lab, two terms of general chemistry with lab, two terms of organic chemistry with lab, one term of college-level mathematics, and one term of English. Advanced placement credits and transfer credits are not considered in the evaluation of college courses taken. Applicants who have not taken General Biology I and II at Rutgers University, either because they have been awarded advanced placement biology credits or because they have transferred equivalent courses from another institution, must have at least one year of upper-division biology courses at Rutgers–New Brunswick/Piscataway. The MCAT is not required for either the first or second stage of admission. An application form has been developed that allows the student to provide the executive committee with information it deems useful for its deliberations.

The bachelor's degree will be awarded upon completion of the undergraduate college and major requirements, usually by end of year four or five, but no later than the end of year six, before clerkships begin. Upon satisfactory completion of year eight and all RWJMS requirements, the student will receive the medical degree.

Students enrolled in the joint program may choose any major available to them at Rutgers–New Brunswick/Piscataway. Those students who wish to pursue a major other than biological sciences, must discuss their plans with the appropriate department in order to establish the requirements they need to complete for their major. Except as stipulated below, students enrolled in the joint program with a major in biological sciences are expected to fulfill all requirements of the major.

Although all courses taught at RWJMS are related to health care and medicine, some are more basic than others and broader in scope. Those which are the least specialized, like medical physiology, microbiology, and biochemistry, could be considered for credit by the undergraduate major. The number of credits, however, is not directly translated between the two universities; no more than 4 credits per laboratory course and 3 credits per nonlaboratory course taken at RWJMS may be used toward the bachelor's degree at Rutgers.

A student enrolled in the joint program with a major in biological sciences is required to take General Biology 01:119:101-102, Genetics 01:447:380, and three approved biology electives (3- or 4-credit courses) at Rutgers–New Brunswick/Piscataway. A maximum of 15 credits from among the following RWJMS courses, each shown with its Rutgers equivalent credit value, can be accepted toward the biological sciences major: Systems Histology (2), Gross and Developmental Anatomy (4), Microbiology and Immunology (4), Physiology (4), Biochemistry (4), Neuroscience (4), and Cellular and Genetic Mechanisms (4).

A student may not receive biological sciences credits for RWJMS Systems Histology and Rutgers Animal Histology 01:146:322; RWJMS Gross Anatomy and Rutgers Functional Human Anatomy 01:377:213 or Human Anatomy 01:377:424; RWJMS Microbiology and Immunology and Rutgers General Microbiology (01:447:390 or 11:680:390) or Pathogenic Microbiology 01:447:392 or Immunology 01:146:474; RWJMS Physiology and Rutgers Systems Physiology 01:146:356, 357; RWJMS Neural Science and Rutgers Advanced Neurobiology 01:146:445, 446; RWJMS Biochemistry and Rutgers Introduction to Biochemistry and Molecular Biology 01:694:301, 313 or Introduction to Biochemistry (11:115:301, 313) or Molecular Biology and Biochemistry 01:694:407-408 or General Biochemistry 11:115:403, 404; RWJMS Cellular and Genetic Mechanisms and Rutgers Advanced Cell Biology 01:146:470 or Topics in Human Genetics 01:447:481.

In addition to general biology and genetics, students will have to take three approved life science electives at Rutgers–New Brunswick/Piscataway to complete the major in biological sciences. It is highly recommended that students in the joint program meet with an adviser when planning their elective courses. No more than one independent study/research course may be applied toward the biological sciences major for students in the B.A./M.D. program.

Departmental Honors Program

To qualify, a student must have a cumulative grade-point average of 3.0 or better and an average of 3.4 or better in courses credited toward the biological sciences major at the end of the junior year. At that time, the student should apply formally to the Advising Office of the Office of Undergraduate Instruction. Accepted students are expected to complete at least 6 credits in an independent research project, resulting in a thesis, and to pass an oral examination before a faculty committee in the general field of the student's program of emphasis. If the research is done in a laboratory outside of Rutgers–New Brunswick/Piscataway, the examination committee must include at least one individual from the Division of Life Sciences faculty.

Honors students must register either for an honors course sequence in life sciences or for a course sequence in a college honors program. These decisions should be discussed with an adviser. An approval form available in the advising office must be completed.

Courses

With the exception of 01:119:101-102 General Biology, courses numbered at the 100 level may not be used for major credit.

01:119:098. FOUNDATIONS FOR BIOLOGICAL SCIENCE (E2)

Preparation for college-level general biology.

Selected topics in general biology: introduction to cellular organization, metabolism, genetics, reproduction, and organ systems. Development of analytical reasoning and science-oriented study techniques.

01:119:100. CONCEPTS IN BIOLOGY (4)

Lec./rec. 3 hrs., lab. 3 hrs.

One-term course covering major biological principles and developing laboratory and problem-solving skills.

01:119:101-102. GENERAL BIOLOGY (4,4)

Lec./rec. 3 hrs., lab. 3 hrs. Pre- or corequisites: 01:350:101; 01:640:111-112, or 115. Designed for science majors.

Broad principles of cell biology, genetics, and evolution; physiology, ecology, and population dynamics of plant and animal systems.

01:119:103. PRINCIPLES OF BIOLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Designed for students who must take a one-term laboratory course in introductory biology to meet major requirements. Credit not given for both this course and 01:119:101-102. Not for life sciences major credit.

Selected topics in general biology, including cell structure, genetics, plant and animal diversity, basic plant and animal biology, ecology, and evolution.

01:119:104. OUTREACH IN BIOLOGY (1)

Pre- or corequisites: Must be enrolled in second term of 01:119:102 or have taken this course during the spring term or Summer Session of the previous year. Student must have received a grade of C or better in 01:119:101-102. By special permission.

Service-learning component of General Biology. Students organize and integrate material learned in 01:119:101-102 and practice communicating their knowledge to the seventh- or eighth-grade science classes at a local school.

01:119:109,110. RECITATION IN BIOLOGY (1,1)

Corequisite for 109 is 01:119:101; corequisite for 110 is 01:119:102.

Discussion of the basic methods and principles.

01:119:111,112. READING IN GENERAL BIOLOGY (1,1)

Corequisite for 111 is 01:119:101; corequisite for 112 is 01:119:102.

Discussion and reading providing extensive and advanced coverage of selected topics.

01:119:127-128. ANATOMY AND PHYSIOLOGY: HEALTH SCIENCES (4,4)

Lec. 3 hrs., lab. 3 hrs. For nursing, medical technology, physical therapy, and other professional students.

Structure and function of human organ systems. Some micro-anatomy and biochemical aspects of physiology included.

01:119:131. MICROBIOLOGY FOR THE HEALTH SCIENCES (3)

Lec. 3 hrs. Not open to students who have taken 01:447:390.

For nursing and other professional students.

Introduction to microbes with emphasis on the nature and behavior of microorganisms, the interrelationships between microbes and the human host in health and disease, and the principles of prevention and control of infectious disease.

01:119:132. MICROBIOLOGY FOR THE HEALTH SCIENCES LABORATORY (1)

Lab. 3 hrs. Pre- or corequisite: 01:119:131.

Laboratory to accompany 01:119:131.

01:119:140. THE DNA REVOLUTION (3)

Not open to students in a life sciences or related major.

Introduction to the molecular basis of life and the biotechnological revolution. How this information is used in medicine and agriculture.

01:119:148. MOVING BODIES: THE BIOLOGY OF MOVEMENT (3)

Credit not given for both this course and 01:119:100, 101-102, 103, or 127-128.

Not for life sciences major credit.

Considers fundamental processes that allow humans and other animals to move, including structural basis (bones and muscles), control (brain and nervous system), conversion of food into energy (digestion and nutrition), movement of food and oxygen to muscles (circulation), and some common and familiar injuries and illnesses and their treatments.

01:119:150. BIOLOGY, SOCIETY, AND BIOMEDICAL ISSUES (3)

Not open to students in a life sciences or related major.

Discussion of current topics and issues in human health and medicine, from a biological perspective.

01:119:152. BIOMEDICAL ISSUES OF AIDS (3)

Fundamentals of infectious disease, immunology, and virology as they apply to the HIV disease. The impact of this epidemic examined in a variety of psychological and social arenas.

01:119:154. GENETICS, LAW, AND SOCIAL POLICY (3)

Prerequisite: Sophomore standing. Not open to students in a life sciences or related major.

Principles of human and behavior genetics and their legal, ethical, and social implications. Topics include genetic screening, counseling, and engineering; reproductive regulation; human behavior genetics.

01:119:160. BIOLOGY, SOCIETY, AND ECOLOGICAL ISSUES (3)

Not open to students in a life sciences or related major.

Ecological and evolutionary ideas affecting space ecology; population increase, food supply, air and water pollution, war, and nuclear energy.

01:119:171. DRUGS AND PLANT HALLUCINOGENS (3)

Not open to students in a life sciences or related major.

Biological basis for the effects of drugs on the brain and body.

01:119:182. HUMAN SEXUALITY (3)

Not open to students in a life sciences or related major.

Anatomical and physiological bases of human sexuality; biological and cultural aspects of sexual differentiation and psychosexual development, contraception, venereal disease, and sexual lifestyles.

01:119:195. BRAIN, MIND, AND BEHAVIOR (3)

Open to students in a college honors program. Not open to students in a life sciences or related major.

Honors course discussing the interrelationship between the brain, the mind, and behavior.

01:119:197. MICROBES AND PEOPLE IN A RAPIDLY CHANGING WORLD (3)

Open to students in a college honors program. Not open to students in a life sciences or related major.

How microbes have changed and will change the course of human history. Discussion of emerging and reemerging infectious diseases as major issues to be faced by humanity in the new millennium. Lectures, student presentations, and roundtable discussions.

01:119:201-202. INDEPENDENT STUDY IN BIOLOGY (1-3,1-3)

Prerequisites: Declared biological sciences major or minor. Permission of the Office of Undergraduate Instruction; cumulative grade-point average of 2.8 or better. May not be used to fulfill a laboratory requirement.

Independent study under the direction of a member of the faculty. Written report required.

01:119:307-308. RESEARCH IN BIOLOGY (1-3,1-3)

Prerequisites: Declared biological sciences major. Permission of the Office of Undergraduate Instruction; cumulative grade-point average of 2.8 or better.

Open only to juniors and seniors majoring in biological sciences.

Laboratory / field research on original problem under the direction of a member of the faculty. Written report required.

01:119:406-407. RESEARCH IN BIOLOGY (1-4,1-4)

Prerequisites: Declared biological sciences major. Permission of the Office of Undergraduate Instruction; cumulative grade-point average of 2.8 or better.

Open only to seniors majoring in biological sciences.

Laboratory / field research on original problem under the direction of a member of the faculty. Written report is required.

01:119:408-409. HONORS IN BIOLOGY (3-6,3-6)

Prerequisites: Declared biological sciences major. Permission of the Office of Undergraduate Instruction. Open only to seniors majoring in biological sciences who meet the requirements for departmental honors.

Laboratory / field research on original problem under the direction of a member of the faculty. Written thesis, oral presentation, and defense are required.

Cell Biology and Neuroscience 146

Department of Cell Biology and Neuroscience, Faculty of Arts and Sciences

Web Site: <http://lifesci.rutgers.edu/~cbn>

Acting Chairperson: Wise Young

Professors:

Bruce Babiarz, B.A., SUNY (Oswego); M.A., Miami (Ohio); Ph.D., Cincinnati
 Joanna Burger, B.S., SUNY (Albany); M.S., Cornell; Ph.D., Minnesota
 David T. Denhardt, B.A., Swarthmore; Ph.D., California Institute of Technology
 Emmet A. Dennis, B.S., Cuttington College (Liberia); M.A., Indiana;
 Ph.D., Connecticut

Francine B. Essien, A.B., Temple; Ph.D., Yeshiva (Einstein College of Medicine)
 A. Farmanfarman (Emeritus), B.A., Reed College; M.A., Ph.D., Stanford
 Martin Grumet, B.S., Cooper Union; Ph.D., Johns Hopkins
 Nathan H. Hart, B.A., Clark; M.A., Ph.D., Harvard
 Ronald P. Hart, B.S., Connecticut; Ph.D., Michigan
 Robert B. Herman (Emeritus), A.B., M.A., M.S., New York; Ph.D., Rutgers
 Arnold G. Hyndman, A.B., Princeton; Ph.D., California (Los Angeles)
 W. Robert Jenkins (Emeritus), B.S., College of William and Mary; M.S., Virginia;
 Ph.D., Maryland

Alice Y.-C. Liu, B.S., Chinese University of Hong Kong; Ph.D., Mount Sinai
 School of Medicine

Charles E. Martin, B.S., Illinois; Ph.D., Florida
 Gary F. Merrill, B.S., Weber State; Ph.D., Michigan State
 Charles H. Page, B.S., Allegheny College; M.S., Ph.D., Illinois
 Jamshid Rabii, A.B., California (Berkeley); Ph.D., California (San Francisco)
 Melitta Schachner, Diploma in Biochemistry, Tübingen; Ph.D., Max-Planck-
 Institut für Biochemie (Munich)

Kathleen M. Scott, B.A., Brown; Ph.D., Yale
 Richard E. Triemer (Emeritus), B.A., Bloomfield College; Ph.D., North Carolina
 Aurea C. Vasconcelos (Emerita), B.S., Puerto Rico; M.S., George Washington;
 Ph.D., Chicago

Guy Werlen, B.S., Rousseau College; M.S., Ph.D., Geneva (Switzerland)

Wise Young, B.A., Reed; Ph.D., Iowa; M.D., Stanford

Edward J. Zambraski (Emeritus), B.S.E., Cortland State; Ph.D., Iowa

Associate Professors:

Morad A. Abou-Sabe (Emeritus), B.S., Alexandria (Egypt); M.S., California
 (Berkeley); Ph.D., Pittsburgh
 Sidney Auerbach, B.A., Oberlin College; Ph.D., Wisconsin
 Lori R. Covey, B.S., California (Riverside); Ph.D., Columbia
 Robin L. Davis, B.S., Pennsylvania State; M.A., San Diego State; Ph.D., Stanford
 Dunne Fong, B.S., Massachusetts; M.A., Ph.D., Princeton
 Shu-Chan Hsu, B.S., Ph.D., British Columbia
 Megerditch Kiledjian, B.A., Rutgers; Ph.D., Pennsylvania
 Mark R. Plummer, B.S., Cornell; Ph.D., Stanford

Assistant Professors:

Bonnie Firestein-Miller, B.S., Michigan; M.S., Ph.D., California (San Diego)
 Gutian Xiao, B.S., Hubei (China); M.S., Wuhan (China); Ph.D., Fudan (China)

Lecturer:

Anne Keating, B.S., M.S., Ph.D., Rutgers

The Department of Cell Biology and Neuroscience offers a course of study that provides fundamental and comprehensive training in the areas of cell biology and neuroscience. The major objective of this program is to prepare students for graduate studies in cell biology and neuroscience; entry into professional schools in medicine, dentistry, or other health-related fields; or employment in industrial and pharmaceutical companies.

Entry Requirements of the Major

The major in the Department of Cell Biology and Neuroscience is open to students beyond their first year who have received grades of C or better in courses taken toward the major, except by special permission of the departmental chairperson. A grade of C or better in courses credited toward the major is required for graduation. Each student must file a Declaration of Major form with the department.

Major Requirements

The Department of Cell Biology and Neuroscience offers a program of study from which students can select one of two options (tracks), depending upon particular interests and career goals: option A (general track) and option B (honors research track). Normally, each student would select a track in consultation with a departmental adviser in the term that the major is declared. A number of core courses are required of all students in the cell biology and neuroscience major, regardless of the chosen option.

Required Core Courses (59 credits)

- 01:119:101-102 General Biology (4,4) *
- 01:146:245 Fundamentals of Neurobiology (3)
- 01:146:270 Fundamentals of Cell and Developmental Biology (3)
- 01:160:161-162 or 01:160:163-164 General Chemistry (4,4) *
- 01:160:171 Introduction to Experimentation (1) *
- 01:160:307-308 or 01:160:315-316 Organic Chemistry (4,4) *
- 01:160:311 Organic Chemistry Laboratory (2) *
- 01:447:380 Genetics (4) *
- 01:640:135, 138† or 01:640:151-152 Calculus (4,4) *
- 01:694:407-408 Molecular Biology and Biochemistry (3,3) or one course in biochemistry (3) plus one course in molecular biology (3)
- 01:750:203-204 General Physics (3,3) * ‡
- 01:750:205-206 General Physics Laboratory (1,1) * ‡

Options

Option A (General Track; 12–13 credits)

This area of concentration is for students who, upon graduation, seek immediate employment or plan to attend professional schools in health-related fields. In addition to the required core courses, students must take the following courses:

1. Two of the following courses:
 - 01:146:445 Advanced Neurobiology I (4)
 - 01:146:470 Advanced Cell Biology (3)
 - 01:146:472 Advanced Developmental Biology (3)

* Life sciences core course.

† 01:640:138 may be substituted by 01:960:379 Basic Probability and Statistics (3) or 401 Basic Statistics for Research (3).

‡ 01:750:193-194 (4,4) or 01:750:201-202 (5,5) may be substituted for 203-204 (3,3) plus 205-206 (1,1).

- Two elective courses in the life sciences area, at the 300 to 400 level, one of which must have an associated laboratory (6 or more credits). These electives must be selected in consultation with a faculty adviser.

Option B (Honors Research Track; 18–19 credits)

This area of concentration is for students who, upon graduation, plan to attend graduate school in cell biology or neuroscience or professional schools in health-related fields. A student must qualify for admission into the honors research track. See departmental honors program for student qualifications. In addition to the required core courses, students must complete the following courses:

- Two of the following courses:
 - 01:146:445 Advanced Neurobiology I (4)
 - 01:146:470 Advanced Cell Biology (3)
 - 01:146:472 Advanced Developmental Biology (3)
- One of the following courses:
 - 01:146:446 Advanced Neurobiology Laboratory I (3)
 - 01:146:448 Advanced Neurobiology Laboratory II (3)
 - 01:146:471 Advanced Cell Biology Laboratory (3)
- 01:146:405 Honors Seminar (3)
- 01:146:408-409 Honors Research (3,3) *

Departmental Honors Program

Honors in cell biology and neuroscience are awarded to students who have completed successfully the honors research track. To qualify for the honors research track (option B), a student must have attained a minimum cumulative grade-point average of 3.0 and a grade-point average of 3.5 or better in courses required for the major. The student should apply formally to the department for acceptance into the honors program by the end of the first term of the junior year.

Courses

01:146:245. FUNDAMENTALS OF NEUROBIOLOGY (3)

Prerequisites: 01:119:101-102.

Introduction to the biology of the nervous system. Topics covered include nerve cell signaling, sensory and motor systems, and higher brain processes.

01:146:270. FUNDAMENTALS OF CELL AND DEVELOPMENTAL BIOLOGY (3)

Prerequisites: 01:119:101-102. *Credit not given for both this course and 01:119:370 or 378 or 460.*

Principles of cell biology. Structure, function, and macromolecular organization of cellular organelles.

01:146:302. COMPUTERS IN BIOLOGY (3)

Prerequisites: 01:119:101-102; 01:160:161-162; and 01:640:135, 138.

Application of the computer in analysis of biological data. Includes programming techniques and simulations of biochemical, physiological, genetic, ecological, medical, and evolutionary phenomena.

01:146:312. HUMAN PRENATAL DEVELOPMENT (3)

Prerequisites: 01:119:101-102.

Morphological, physiological, and biochemical phenomena in human embryonic and fetal development. Human birth defects and manipulation of gametes and embryos.

01:146:322. ANIMAL HISTOLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisite: 01:146:270.

Structure of the tissues and organs of the animal body.

01:146:328. HUMAN PARASITOLOGY (3)

Lec. 3 hrs. Prerequisites: 01:119:101-102. *Credit not given for both this course and 01:146:327.*

Discussion of the cell biology, epidemiology, pathogenesis, and clinical manifestations of human parasitic diseases.

01:146:329. HUMAN PARASITOLOGY LABORATORY (1)

Lab. 3 hrs. Pre- or corequisite: 01:146:328. *Credit not given for both this course and 01:146:327.*

Laboratory to accompany 01:146:328.

01:146:356. SYSTEMS PHYSIOLOGY (3)

Prerequisites: 01:119:101-102 and 01:160:161-162, 171.

Comprehensive study of the principal organ systems of laboratory animals and man.

01:146:357. SYSTEMS PHYSIOLOGY LABORATORY (1)

Lab. 3 hrs. Pre- or corequisite: 01:146:356.

Laboratory to accompany 01:146:356.

01:146:405. HONORS SEMINAR (3)

Prerequisite: Permission of department. Open only to senior honors students.

Development of communication and written skills needed by professionals in cell biology and neuroscience. Oral reports, written papers, and discussion of topics of current interest in the field.

01:146:406-407. RESEARCH IN CELL BIOLOGY AND NEUROSCIENCE (1-4,1-4)

Prerequisite: Permission of instructor. Open only to students majoring in cell biology and neuroscience.

Research under the direction of a member of the departmental faculty. Written report required.

01:146:408-409. HONORS RESEARCH (3-6,3-6)

Prerequisite: Permission of department. Open only to senior honors students.

Research project under the direction of a departmental faculty member. Written report and oral presentation required.

01:146:445. ADVANCED NEUROBIOLOGY I (4)

Prerequisite: 01:146:245.

Advanced concepts in neurobiology focusing on cellular and molecular aspects of neuronal signaling, including ion channel gating, sensory transduction, and transmission across chemical and electrical synapses.

01:146:446. ADVANCED NEUROBIOLOGY LABORATORY I (3)

Prerequisites: 01:146:445 and permission of instructor.

Advanced laboratory methods in neurobiology. Electrophysiological and immunochemical techniques to explore the structural and functional features of nerve cells.

01:146:448. ADVANCED NEUROBIOLOGY LABORATORY II (3)

Prerequisites: 01:146:447 and permission of instructor.

01:146:450. ENDOCRINOLOGY (3)

Prerequisites: 01:119:101-102. *Recommended:* Courses in physiology and organic chemistry. Open to juniors and seniors only. *Credit not given for both this course and 11:067:450.*

Endocrinology and neuroendocrinology of animals, including man. The structure and function of the endocrine glands, including the hypothalamus, and the biosynthesis and chemistry of hormones.

01:146:464. TOPICS IN CELL BIOLOGY AND NEUROSCIENCE (3)

Prerequisites: 01:146:245 and 270.

Directed readings and discussion of selected topics in cell biology and neuroscience.

01:146:470. ADVANCED CELL BIOLOGY (3)

Prerequisite: 01:146:270. *Credit not given for both this course and 01:119:370 or 378 or 01:146:370.*

Advanced concepts of cell biology focusing on the molecular organization of cells, including internal membranes and synthesis of macromolecules, the cell nucleus, the cell cycle, cytoskeleton, cell-cell adhesion and the extracellular matrix, and signal transduction.

* Upon departmental approval, 01:146:408-409 (3,3) may be substituted by one of the "college honors project" sequences (BA,BA).

01:146:471. ADVANCED CELL BIOLOGY LABORATORY (3)*Prerequisites: 01:146:470 and permission of instructor.*

Advanced laboratory methods in cell biology. Emphasis on light and electron microscopy, imaging, immunochemical techniques, tissue culture, and methods of identifying and separating macromolecules.

01:146:472. ADVANCED DEVELOPMENTAL BIOLOGY (3)*Prerequisite: 01:146:270.*

Molecular biology of early development, morphogenesis, organogenesis, tissue interactions, and genetic control of cellular differentiation.

01:146:473. ADVANCED DEVELOPMENTAL BIOLOGY LABORATORY (3)*Prerequisites: 01:146:472 and permission of instructor.*

Advanced laboratory methods in developmental biology. Designed to introduce students to techniques of obtaining and handling gametes and experimental manipulation of embryos. Focus on sea urchin, frog, zebra fish, and chick.

01:146:474. IMMUNOLOGY (3)*Prerequisites: 01:119:101-102 and 01:447:380 or 384. Recommended: 01:447:390.*

Fundamental principles of immunology with emphasis on antibody formation, immunoglobulin molecules and genes, hypersensitivity reactions, and the cellular basis for the immune response.

01:146:475. LABORATORY IN IMMUNOLOGY (1)*Pre- or corequisite: 01:146:474.*

Biochemical and molecular analysis of immune cell function. Application of immunological techniques to the examination of normal and diseased states.

01:146:478. MOLECULAR BIOLOGY (3)*Prerequisites: 01:160:307-308. For juniors and seniors only.*

Structure and function of macromolecules, recombinant DNA technology, and study of genes and their regulation at the molecular and cellular levels.

Genetics 447

Department of Genetics, Faculty of Arts and Sciences

Web Site: <http://lifesci.rutgers.edu/~genetics>

Chairperson: Jay A. Tischfield

Professors:

David E. Axelrod, B.S., Chicago; Ph.D., Tennessee
 Emanuel B. Hey III, B.A., Colgate; Ph.D., SUNY (Stony Brook)
 Howard C. Passmore, A.B., Franklin and Marshall College; Ph.D., Michigan
 Amrik S. Sahota, B.S., Bath (UK); M.S., Loughborough (UK); Ph.D., London (UK)
 William H. Sofer, B.S., Brooklyn College; Ph.D., Miami
 Jay A. Tischfield, B.S., CUNY (Brooklyn); M.Ph., Ph.D., Yale

Associate Professors:

Linda M. Brzustowicz, A.B., Harvard (Radcliffe); M.D., Columbia
 Douglas Fugman, B.S., Ph.D., Cincinnati
 Mary Konsolaki, B.Sc., Athens (Greece); Ph.D., University of Crete and Institute of Molecular Biology and Biotechnology (Greece)
 Tara C. Matise, B.S., Cornell; M.S., Ph.D., Pittsburgh
 Terry R. McGuire, B.S., Ohio State; Ph.D., Illinois
 Kim S. McKim, B.S., Simon Fraser; Ph.D., British Columbia
 Susan Rittling, B.A., Rice; Ph.D., Vermont
 Lee D. Simon, B.A., Wesleyan; M.S., Ph.D., Rochester
 Navin K. Sinha, B.S., M.S., Patna (India); Ph.D., Minnesota
 Ann C. St. John, B.S., Pennsylvania State; M.S., Ph.D., Wisconsin (Madison)

Assistant Professors:

Mark Brennenman, B.A., Washington; Ph.D., Baylor College of Medicine
 Xuemi Chen, B.Sc., Beijing; Ph.D., Cornell
 Chi-hua Chiu, B.A., Colorado; Ph.D., Wayne State
 Eric Cunqi Cui, B.S., Nakai (China); M.S., Chinese Academy of Sciences (China); Ph.D., Cincinnati
 Neda Gharani, B.Sc., Imperial College of Science, Technology, and Medicine (UK); M.Sc., Ph.D., Imperial College School of Medicine at St. Mary's (UK)
 Christopher G. Rongo, B.A., California (San Diego); Ph.D., Massachusetts Institute of Technology

Lourdes Serrano, B.S., Ph.D., Universidad Autónoma de Madrid (Spain)
 Changshun Shao, B.S., Qufu Normal; M.M., Shandong Medical; Ph.D., Indiana
 Gleb Shumyatsky, B.A., Moscow State; Ph.D., USSR Academy of Sciences (Russia)

Andrew W. Singson, B.S., California (Davis); Ph.D., California (San Diego)
 David A. Toke, B.S., M.S., Ph.D., Rutgers

Lecturers:

Martha B. Haviland, B.A., Rutgers; M.S., A.M., Ph.D., Michigan
 Anne Keating, B.S., Cornell; M.S., Ph.D., Rutgers
 Joanne Siu Stolen, B.S., M.A., Ph.D., Rutgers

The Department of Genetics encourages and fosters research, dissemination of knowledge, and public service aimed at understanding and contributing to advances in the genetics of humans and model organisms. Faculty members conduct research and prepare undergraduate and graduate students for diverse careers in science and education. Students in the undergraduate major have the opportunity to participate in research and learn how discoveries in science are made. Courses in the department cover a wide variety of topics from molecular genetics to human genetics. These course offerings prepare students for careers in biological research, biotechnology, and the health professions.

Entry Requirements of the Major

Students wishing to major in this department must have been enrolled at Rutgers for at least one term and have earned a C or better in introductory biology, general chemistry, and calculus (or have permission from the department chair). A grade of C or better in courses credited toward the major is required for graduation.

Major Requirements

The department offers two options (tracks). Students interested in any of the departmental options will be required to take 01:447:315 Introduction to Research in Genetics. The aim of the course is to introduce students to both the theory and practice of research, so that they may be prepared to conduct a research project in genetics. A minimum of 20 credits of course work in the life sciences must be completed in residence.

Required Core Courses (59 credits)

01:119:101-102 General Biology (4,4) *
 01:160:161-162 or 01:160:163-164 General Chemistry (4,4) *
 01:160:171 Introduction to Experimentation (1) *
 01:160:307-308 or 01:160:315-316 Organic Chemistry (4,4) *
 01:160:311 Organic Chemistry Laboratory (2) *
 01:447:315 Introduction to Research in Genetics (3)
 01:447:384-385 Genetic Analysis I,II (4,4)
 01:447:403,404 Seminar in Genetics (1,1)
 01:640:135, 138 or 01:640:151-152 Calculus (4,4) * †
 01:694:301 Introductory Biochemistry and Molecular Biology (3)
 01:750:203-204 General Physics (3,3) * ‡
 01:750:205-206 General Physics Laboratory (1,1) * ‡

* Life sciences core course.

† 01:960:401 Basic Statistics for Research (3) may substitute for the second term of calculus.

‡ 01:750:193-194 (4,4) or 01:750:201-202 (5,5) may be substituted for 203-204 (3,3) plus 205-206 (1,1).

Option A (Genetics Laboratory Research Track; 18 credits)

- 01:447:406-407 Research in Genetics (3-6,3-6) or
01:447:408-409 Honors in Genetics (6,6) *

A minimum of 12 credits is required in research courses. In addition, students must take at least two electives (3 or more credits each) from the list of Genetics Electives below.

Option B (Genetics Nonlaboratory Research Track; 19 credits)

- 01:447:382 Genetics Laboratory (1)
01:447:489,490 Literature Research in Genetics and Microbiology (3,3)

In addition, students must take at least 10 credits of electives from the genetics electives list below. Substitutions are permitted only with the approval of the student's adviser.

Elective Courses

In addition to the undergraduate courses listed below, highly qualified students will be encouraged to choose courses, in consultation with departmental advisers, from Graduate School–New Brunswick offerings.

Genetics Electives

- 11:126:427 Methods in Recombinant DNA Technology (4)
01:447:245 Introduction to Cancer (3) †
01:447:307-308 Research in Genetics (1-3,1-3) ‡
01:447:390 General Microbiology (4)
01:447:398 Electron Microscopy (4)
01:447:406-407 Research in Genetics (3-6,3-6) ‡
01:447:420 Evolutionary Genetics: Humans and Other Primates (3)
01:447:480 Topics in Molecular Genetics (3)
01:447:481 Topics in Human Genetics (3)
01:447:484 Behavioral and Neural Genetics (3)
01:447:486 Evolutionary Genetics (3)
01:447:495 Cancer (3) †
01:447:498 Bacterial Physiology (3)
01:694:411 Molecular Pathways and Signal Transduction (3)
01:694:492 Molecular Biology of Gene Regulation and Development (3)

Departmental Honors Program

To qualify, a student must have, by the end of the junior year, a cumulative grade-point average of 3.0 or better and an average of 3.4 or better in courses credited toward one of the departmental majors. At that time, the student should apply formally to the department. Accepted students are expected to complete at least 6 credits in an independent research project, resulting in a thesis, and to pass an oral examination before a faculty committee in the general field of the student's program of emphasis. If the research is done in a laboratory outside of Rutgers–New Brunswick / Piscataway, the examination committee must include at least one individual from the Rutgers–New Brunswick / Piscataway faculty.

Honors students must register either for an honors course sequence in genetics or for a course sequence in a college

honors program. These decisions should be discussed with an adviser. An approval form is available in the departmental office and on the departmental web site.

Courses**01:447:201-202. INDEPENDENT STUDY IN GENETICS (1-3,1-3)**

Prerequisites: Permission of department; cumulative grade-point average of 2.8 or better. May not be used to fulfill a laboratory requirement.

Independent study under the direction of a member of the departmental faculty. Written report is required.

01:447:245. INTRODUCTION TO CANCER (3)

Prerequisites: 01:119:101-102. Credit not given for both this course and 01:447:495.

Introduction to the biological and medical aspects of malignancy.

01:447:302. COMPUTERS IN BIOLOGY (3)

Prerequisites: 01:119:101-102; 01:160:161-162; and 01:640:135, 138.

Application of the computer in analysis of biological data. Includes programming techniques and simulations of biochemical, physiological, genetic, ecological, medical, and evolutionary phenomena.

01:447:307-308. RESEARCH IN GENETICS (1-3,1-3)

Prerequisites: 01:447:380 or 384, permission of department, and cumulative grade-point average of 2.8 or better.

Laboratory research on original problem under the direction of a professor.

01:447:315. INTRODUCTION TO RESEARCH IN GENETICS (3)

Prerequisites: 01:160:307-308 or 315-316. Pre- or corequisite: 01:447:380 or 384. Open only to genetics majors.

Basic principles and methods of research with microbial model systems used in the analysis and manipulation of genes, followed by a research project in molecular genetics.

01:447:380. GENETICS (4)

Lec. 3 hrs., rec. 1 hr. Prerequisites: 01:119:101-102 and 01:160:161-162, 171. Credit not given for both this course and 01:447:384-385, or 11:067:328 or 11:776:305.

Introduction to the mechanisms of heredity and evolution. Mechanisms of Mendelian inheritance, meiosis, recombination, gene mutation, and mapping. An introduction to modern biochemical, molecular, and population genetics.

01:447:382. GENETICS LABORATORY (1)

Lab. 3 hrs. Pre- or corequisite: 01:447:380 or 384.

Laboratory to accompany 01:447:380.

01:447:384-385. GENETIC ANALYSIS I,II (4,4)

Prerequisites for 447:384: 01:119:101-102, 01:160:161-162, and 171. *Prerequisites for 447:385:* 01:447:384. Open only to majors in genetics or by permission of instructor. Credit not given for both this course and 01:447:380 or 11:067:328 or 11:776:305.

Experimental methods and concepts in genetics, with emphasis on their application to genetic research. Part I covers transmission genetics and breeding analyses, basic molecular genetics, isolation and characterization of mutations, and chromosome structure and function. Part II covers mathematical genetics, recombinant DNA, genomics, and special topics relevant to modern genetic research.

01:447:390. GENERAL MICROBIOLOGY (4)

Lec. 3 hrs., lab. 3 hrs. Prerequisites: 01:119:101-102; 01:160:161-162, 171, and 307. Credit not given for both this course and 11:680:390.

Basic principles of microbiology. An introduction to the physiology, morphology, pathogenicity, and genetics of groups of microorganisms and their applications.

01:447:392. PATHOGENIC MICROBIOLOGY (3)

Prerequisite: 01:119:131 or 133 or 01:447:390.

Host / parasite interactions in diseases caused by microorganisms, including pathogenicity, virulence, and immunity. Principles of infection, transmission, and disease control also discussed.

* A grade-point average of 3.4 in courses required for the majors is a prerequisite for this course.

† Students may not receive credit for both 01:447:245 and 495.

‡ Only 6 credits of research may be used as elective credit in option B. Cannot be used for elective credit in option A.

01:447:398. ELECTRON MICROSCOPY (4)

Pre- or corequisites: 01:119:102, 01:750:203-204; permission of instructor (limited enrollment).

Theory, practice, and application of transmission electron microscopy and scanning electron microscopy; emphasis on material relevant to genetics.

01:447:403,404. SEMINAR IN GENETICS (1,1)

Open only to senior majors.

Student presentations based on special topics selected by the course instructor.

01:447:406-407. RESEARCH IN GENETICS (3-6,3-6)

Prerequisites: 01:447:315, permission of department, and cumulative grade-point average of 2.8 or better. Open only to seniors majoring in genetics.

Research project in the laboratory of a faculty member. Student research plans and results presented in 01:447:403,404.

01:447:408-409. HONORS IN GENETICS (6,6)

Prerequisites: 01:447:315, permission of department. Open only to seniors majoring in genetics who meet the requirements for the departmental honors program.

Laboratory research on original problem under the direction of a professor. Written thesis, oral presentation, and defense required.

01:447:420. EVOLUTIONARY GENETICS: HUMANS AND OTHER PRIMATES (3)

Prerequisites: 01:477:380 or 384 and 01:070:102, 212, or special permission of instructor. Credit not given for both this course and 01:070:420.

Molecular evolution of human and primate genomes; genetic and phenotypic evolution; the genetic basis of being human; primate phylogeny.

01:447:480. TOPICS IN MOLECULAR GENETICS (3)

Prerequisite: 01:447:380.

Current research topics in microbial and molecular genetics. Lectures, discussions, and critical analysis of journal articles.

01:447:481. TOPICS IN HUMAN GENETICS (3)

Prerequisite: 01:447:380 or 384.

Genetic aspects of human health and disease. Topics include birth defects, immunogenetics, cytogenetics, metabolic disorders, pattern of inheritance, and genetic counseling.

01:447:484. BEHAVIORAL AND NEURAL GENETICS (3)

Prerequisite: 01:447:380 or 384. Statistics highly recommended.

Discussion of historical and recent research in the application of genetic techniques to the understanding of behavioral and neural differences.

01:447:486. EVOLUTIONARY GENETICS (3)

Prerequisite: 01:447:380 or 384.

Principles of evolution as revealed in DNA sequences. The effects of natural selection, genetic drift, and speciation on DNA, and the inference of histories from comparative DNA sequence data.

01:447:489,490. LITERATURE RESEARCH IN GENETICS (3,3)

Pre- or corequisites: 01:447:380 or 384 and 403.

Literature or computer research projects on a selected subject under the direction of a faculty member. Students write a thesis and present it in 01:447:403,404.

01:447:495. CANCER (3)

Prerequisite: 01:447:380 or 384. Credit not give for both this course and 01:447:245.

Biological and medical aspects of malignancy. Oncogenic viruses, environmental chemical carcinogens, cell growth regulation, tumor immunology, genetics of cancer.

01:447:498. BACTERIAL PHYSIOLOGY (3)

Prerequisites: 01:160:307-308; 01:447:390; or permission of instructor.

Bacterial biochemistry with emphasis on integration of metabolic pathways at the level of gene expression and enzymatic activity.

Molecular Biology and Biochemistry 694

Department of Molecular Biology and Biochemistry,
Faculty of Arts and Sciences

Web Site: <http://www.rci.rutgers.edu/~molbio>

Chairperson: Vincent Pirrotta

Professors:

Steven J. Brill, B.S., Maryland; Ph.D., SUNY (Stony Brook)
Monica Driscoll, A.B., Rutgers; Ph.D., Harvard
Fumio Matsumura, B.A., Tokyo; Ph.D., Nagoya (Japan)
Gaetano T. Montelione, B.S., M.A., Ph.D., Cornell
Robert A. Niederman, B.S., M.S., Connecticut; D.V.M., Ph.D., Illinois
Richard W. Padgett, B.S., Ph.D., North Carolina
Vincent Pirrotta, B.A., Ph.D., Harvard
Ruth Steward, B.S., Ph.D., Basel (Switzerland)
Andrew K. Vershon, B.A., Bennington; Ph.D., Massachusetts Institute of Technology
Eileen P. White, B.S., Rensselaer Polytechnic Institute; Ph.D., SUNY (Stony Brook)

Associate Professors:

Stephen Anderson, A.B., Ph.D., Harvard
Isaac Edery, B.S., Ph.D., McGill
Abram Gabriel, B.A., Harvard; M.D., M.P.H., Johns Hopkins
Samuel I. Gunderson, B.S., Minnesota; Ph.D., Wisconsin
Kenneth D. Irvine, B.A., Williams College; Ph.D., Stanford
Konstantin V. Severinov, M.Sc., Moscow State; Ph.D., Russian Academy of Sciences
Shigeko Yamashiro, B.S., Saint Paul; Ph.D., Nagoya (Japan)

Assistant Professors:

Barth Grant, B.A., Virginia; Ph.D., Princeton
Garth Patterson, B.A., Northwestern; Ph.D., Oregon

Research Professors:

Thomas Acton, B.S., Trenton State; Ph.D., Rutgers
James Aramini, B.S., Simon Fraser; Ph.D., Calgary
Laura Bianchi, M.S., Milan (Italy); Ph.D., Florence (Italy)
Kurt R. Degenhardt, B.S., Kutztown; Ph.D., SUNY (Stony Brook)
Swapna V. Gurla, B.S., Osmania; Ph.D., Indian Institute of Chemical Technology
Yuanpeng Huang, B.S., Zhejiang (China); Ph.D., Rutgers
Janet Mullen, B.S., Michigan; Ph.D., SUNY (Stony Brook)
Bradley Nefsky, B.S., California (San Diego); Ph.D., Cornell
Catherine Phillips, B.S., Sydney (Australia); Ph.D., London School of Hygiene and Tropical Medicine (UK)
Cordelia Rauskolb, B.S., California (Santa Barbara); Ph.D., Princeton
Shigeko Yamashiro, B.S., Saint Paul; Ph.D., Nagoya (Japan)

Lecturer:

Frank H. Deis, B.A., Rice; Ph.D., Medical College of Virginia

The Department of Molecular Biology and Biochemistry offers a course of study in which traditional and modern biochemistry are integrated with studies in molecular biology. In addition, as described below, students are required to carry out undergraduate research work, and three research options in molecular biology and biochemistry are offered to majors. This course of study prepares students for graduate studies in molecular biology and biochemistry and related fields, entry into professional schools in medicine or other health professions, or employment in industries (e.g., biotechnology, pharmaceuticals) in which molecular biology and biochemistry skills are in demand.

Entry Requirements of the Major

The molecular biology and biochemistry major is open to students beyond their first year who have received grades of C or better in courses taken toward the major, except by special permission of the department chairperson. A grade of C or better in all courses credited toward the major is required for graduation.

Major Requirements

A core of courses is required for completion of the major in molecular biology and biochemistry. Students supplement the core with additional required and elective courses in one of three options. All students are required to write a senior thesis or honors thesis and present a seminar.

Required Core Courses (68 credits)

- 01:119:101-102 General Biology (4,4) *
- 01:160:161-162 or 01:160:163-164 General Chemistry (4,4) *
- 01:160:171 Introduction to Experimentation (1) *
- 01:160:309 Organic Chemistry Laboratory (2) (recommended) or 01:160:311 Organic Chemistry Laboratory (2) (acceptable) *
- 01:160:315-316 Principles of Organic Chemistry (4,4) (recommended) * or 01:160:307-308 Organic Chemistry (4,4) (acceptable) *
- 01:160:341-342 Physical Chemistry: Biochemical Systems (3,3) or 01:160:323-324 Physical Chemistry (3,3)
- 01:447:380 Genetics (4) *
- 01:640:151-152 Calculus for Mathematical and Physical Sciences (4,4) *
- 01:640:251 Multivariable Calculus (4)
- 01:694:315 Introduction to Molecular Biology and Biochemistry Research (3)
- 01:694:407-408 Molecular Biology and Biochemistry (3,3)
- 01:694:483,484 Seminar in Molecular Biology and Biochemistry (1,1)
- 01:750:203-204 General Physics (3,3) *†
- 01:750:205-206 General Physics Laboratory (1,1) *†

Options

The Department of Molecular Biology and Biochemistry offers two laboratory research options (laboratory option one and laboratory option two), as well as a nonlaboratory research option (nonlaboratory option). In all cases, students must take 01:694:315 Introduction to Molecular Biology and Biochemistry Research and 01:694:483,484 Seminar in Molecular Biology and Biochemistry. Course 01:694:315 is generally meant for junior students in the major, but sufficiently qualified sophomores may take the course, depending on available space, with the permission of the instructor.

Laboratory Option One (15 credits)

- 01:694:381,382 Undergraduate Laboratory Research (3-6,3-6)
- 01:694:481,482 Advanced Undergraduate Laboratory Research (3-6,3-6) or some form of “honors” laboratory research (6,6)

A minimum of 12 credits is required in research courses. Students are encouraged strongly to register for more than the minimum whenever possible. Students must take at least one approved elective to satisfy the requirements of this option.

Laboratory Option Two (12 credits)

- 01:694:381,382 Undergraduate Laboratory Research (3-6,3-6) or 01:694:481,482 Advanced Undergraduate Laboratory Research (3-6,3-6) or some form of “honors” laboratory research (6,6)

A minimum of 6 credits is required in research courses. Students are encouraged strongly to register for more than the minimum whenever possible. Students must take at least two approved electives to satisfy the requirements of this option. Note that students applying for honors must complete 6 credits of honors course work per term for two terms.

Nonlaboratory Option (12 credits)

- 01:694:489,490 Literature Research in Molecular Biology and Biochemistry (3,3)

Students must take at least two approved electives to satisfy the requirements of this option. Students taking this option may not apply for departmental honors.

Electives

Students are required to take one or more electives approved by their departmental faculty advisers. Because the list of approved electives is changing, students should discuss their elective options directly with their departmental faculty advisers. A list of currently approved electives can be found at the Department of Molecular Biology and Biochemistry web site.

In addition to the undergraduate courses listed, advanced students are encouraged to choose electives from the Graduate School–New Brunswick.

Departmental Honors Program

To qualify, a student must have attained, at the end of the junior year, a cumulative grade-point average of at least 3.0 and a grade-point average of 3.4 or better in courses required for the major. Exceptional students not meeting these criteria but wishing to apply for honors research may petition the department chairperson at the beginning of their senior year. Students accepted to the program are expected to complete two terms (6 credits per term) of honors course work. A written honors thesis and an oral thesis presentation are required. Students enrolled in 01:694:495,496 Honors Laboratory Research or any of the various college honors programs are eligible to receive departmental honors at the time of graduation.

Courses

01:694:281,282. SOPHOMORE LABORATORY RESEARCH (1-6,1-6)

Credits in this course cannot be used toward the required research credits for laboratory option.

Research project in the laboratory of a faculty member. Written report of research carried out during each term required.

01:694:301. INTRODUCTORY BIOCHEMISTRY AND MOLECULAR BIOLOGY (3)

Prerequisites: 01:160:209 or 307-308. Not for students majoring in molecular biology and biochemistry.

Chemistry and metabolism of proteins, carbohydrates, lipids, nucleic acids, and other biologically important compounds.

* Life sciences core course.

† 01:750:193-194 (4,4) or 01:750:201-202 (5,5) may be substituted for 203-204 (3,3) plus 205-206 (1,1).

LINGUISTICS

01:694:313. INTRODUCTORY BIOCHEMISTRY LABORATORY (1)

Lab. 3 hrs. Pre- or corequisite: 01:694:301. Not for students majoring in molecular biology and biochemistry.

Techniques used in research, clinical, and food laboratories, including tests of biological materials, methods of separation, and determination of enzyme activities.

01:694:315. INTRODUCTION TO MOLECULAR BIOLOGY AND BIOCHEMISTRY RESEARCH (3)

Pre- or corequisites: 01:119:101-102; 01:160:307-308 or 315-316.

Basic principles and methods of research, followed by a research project: analyses of molecular clones from eukaryotic cDNA libraries. Description of research opportunities at the university available to undergraduates.

01:694:381,382. UNDERGRADUATE LABORATORY RESEARCH (3-6,3-6)

Research project in the laboratory of a faculty member. Written report of research carried out during each term required.

01:694:407-408. MOLECULAR BIOLOGY AND BIOCHEMISTRY (3,3)

Pre- or corequisites: 01:160:307-308 or 315-316.

Disciplines of biochemistry and molecular biology as interlocking and mutually complementary fields of study. *First term:* protein structure and function, structure of DNA, RNA, lipids, membranes and carbohydrates, catalysis of biochemical reactions, intermediary metabolism, oxidative phosphorylation, recombinant DNA approaches, DNA replication, repair and recombination, mobile genetic elements. *Second term:* transcription and gene regulation, RNA splicing, translation, viral gene expression, membrane transport, lipid metabolism, signal transduction, photosynthesis, protein secretion, targeting and turnover, nitrogen, amino acid, and nucleotide metabolism.

01:694:411. MOLECULAR PATHWAYS AND SIGNAL TRANSDUCTION (3)

Prerequisites: 01:694:407-408 or 01:447:384-385 or 11:115:403-404 or 11:126:481.

Lectures and discussion of current research areas of advanced molecular and structural biology: transcription, posttranscriptional regulation, cell cycle, neurobiology, protein folding, macromolecular recognition, molecular virology.

01:694:412. PROTEOMICS AND FUNCTIONAL GENOMICS (3)

Prerequisites: 01:694:407 and 01:447:380 or permission of instructor. Corequisite: 01:694:408 or permission of instructor.

Survey of modern techniques of protein biochemistry, bioinformatics, proteomics, and functional genomics, including basic concepts of protein structure and function, protein folding, protein characterization and purification, enzyme kinetics, NMR and X-ray crystallography, mass spectrometry, and various techniques and approaches to functional and structural genomics.

01:694:481,482. ADVANCED UNDERGRADUATE LABORATORY RESEARCH (3-6,3-6)

Pre- or corequisites: 01:694:315, 407-408, and 483,484.

Research project in the laboratory of a faculty member. Written report of research carried out during the fall term required; senior thesis required in the spring term. Oral presentation of student research presented in 01:694:483,484.

01:694:483,484. SEMINAR IN MOLECULAR BIOLOGY AND BIOCHEMISTRY (1,1)

Pre- or corequisites: 01:694:315, 381,382, and 407-408; or 481,482, 489,490, or 495,496.

Oral presentation of student's own research results and the research interests of the laboratory with which the student is associated. Discussion of career options in the fall, and a required poster session of student research in the spring. Thesis required.

01:694:489,490. LITERATURE RESEARCH IN MOLECULAR BIOLOGY AND BIOCHEMISTRY (3,3)

Prerequisites: 01:694:315, 407-408, and 483,484.

Literature research projects on a selected subject under the direction of a faculty member. Students write a thesis and present their research results in 01:694:483,484.

01:694:492. GENE REGULATION IN CANCER AND DEVELOPMENT (3)

Pre- or corequisite: 01:694:407-408 or 01:447:384-385 or 11:115:403-404 or 11:126:481.

Advanced molecular studies of modern eukaryotic genetic and developmental issues. Experimental approaches focusing on current research questions, including control of gene expression in yeast, *Drosophila* and *C. elegans* developmental genetics, and molecular biology of cancer and oncogenesis.

01:694:495,496. HONORS LABORATORY RESEARCH (6,6)

Pre- or corequisites: 01:694:315, 407-408, and 483,484.

Honors research project in the laboratory of a faculty member. Oral presentation of student research presented in 01:694:483,484. Honors thesis and oral presentation required.

LINGUISTICS 615

Department of Linguistics, Faculty of Arts and Sciences

Web Site: <http://ling.rutgers.edu>

Chairperson: Veneeta Dayal

Professors:

Mark Baker, B.S., Ph.D., Massachusetts Institute of Technology

Maria Bittner, B.A., M.A., Oxford; Ph.D., Texas

Veneeta Dayal, B.A., M.A., Delhi (India); Ph.D., Cornell

Jane Grimshaw, B.A., University College (London); Ph.D., Massachusetts

Alan Prince, B.A., McGill; Ph.D., Massachusetts Institute of Technology

Kenneth Safir, B.A., Massachusetts; Ph.D., Massachusetts Institute of Technology

Associate Professors:

Akinbiyi Akinlabi, B.A., M.A., Ph.D., Ibadan (Nigeria)

Viviane Déprez, Licence, Strasbourg (France); M.A., Syracuse; Ph.D.,

Massachusetts Institute of Technology

Roger Schwarzschild, A.B., Columbia; Ph.D., Massachusetts

Bruce Tesar, M.A., Ph.D., Colorado

Assistant Professors:

José Camacho, M.A., Ph.D., Southern California

Paul de Lacy, B.A., M.A., Auckland; Ph.D., Massachusetts

Linguists in Other Departments:

Laura Ahearn, Anthropology; Ph.D., Michigan

Ousseina Alidou, Africana Studies, Hausa; Ph.D., Indiana

Young-Mee Yu Cho, Asian Languages and Cultures; Ph.D., Stanford

Jerry Fodor, Philosophy; Ph.D., Princeton

John Hawthorne, Philosophy; Ph.D., Syracuse

Carl Kirschner, Spanish and Portuguese; Ph.D., Massachusetts

Ernest LePore, Philosophy; Ph.D., Minnesota

Robert Matthews, Philosophy; Ph.D., Cornell

Senko Maynard, East Asian, Linguistics; Ph.D., Northwestern

Liliana Sanchez, Spanish and Portuguese; Ph.D., Southern California

Jason Stanley, Philosophy, Ph.D., Massachusetts Institute of Technology

Thomas Stephens, Spanish and Portuguese; Ph.D., Michigan

Stephen Stich, Philosophy; Ph.D., Princeton

Matthew Stone, Computer Science; Ph.D., Pennsylvania

Karin Stromswold, Psychology; Ph.D., Massachusetts Institute of Technology

Major Requirements

A major in linguistics consists of 10 courses of 3 credits each, distributed as follows: (1) the four core courses: 01:615:201, 305, 315, and 325; (2) three additional courses at the 300 level or above in linguistics (615); and (3) three courses at the 300 level or above in linguistics (615) or

chosen from the list of approved courses below. Grades of C or better must be earned in all course work that is to be applied to the major.

Minor Requirements

A minor in linguistics consists of six courses of 3 credits each, distributed as follows: 01:615:201; any two courses from among 01:615:305, 315, and 325; two additional courses at the 300 level or above in linguistics (615); and one additional course at the 300 level or above in linguistics (615) or chosen from the approved courses listed below. Grades of C or better must be earned in all course work that is to be applied to the minor.

Departmental Honors Program

Students wishing to participate in the honors program in the senior year must make written application to the departmental major adviser no later than May 15 of the junior year. To be considered, a student must have a cumulative grade-point average of 3.0 or better and a grade-point average of 3.4 or better in courses counting toward the linguistics major. Students selected to participate in the program enroll in 01:615:495,496 and spend two terms researching and writing an honors thesis under the supervision of a faculty member from the linguistics department. After the thesis is submitted, an oral examination on the thesis is given by a committee consisting of the student's honors program supervisor and two other linguistics department faculty members selected with the approval of the major adviser. On the basis of the committee's report on the thesis and the examination, the department determines whether the student is to be recommended for departmental honors.

Approved Courses

Advanced courses in other disciplines appropriate for satisfaction of major or minor requirements include the following:

- 01:013:301 African Linguistics (3)
- 01:070:312 Language and Social Diversity (3)
- 01:070:313 Culture, Language, and Cognition (3)
- 01:165:325 Advanced Chinese Grammar (3)
- 01:190:421 Indo-European Origins of the Classical Languages (3)
- 01:198:452 Formal Languages and Automata (3)
- 01:350:411, 412 Old English Language and Literature (3,3)
- 01:351:310,311 History of the English Language (3,3)
- 01:420:332 French Phonetics and Applied Linguistics (3)
- 01:420:333 Introduction to French Syntax (3)
- 01:420:403 History of the French Language (3)
- 01:420:407 Advanced French Syntax (3)
- 01:420:490 Advanced Topics in French and Francophone Linguistics (3)
- 01:560:304 Introduction to Italian Linguistics (3)
- 01:565:325 Advanced Japanese Grammar and Rhetoric (3)
- 01:730:315 Applied Symbolic Logic (3)
- 01:730:420 Philosophy of Language (3)
- 01:830:352 Psychology of Language Laboratory (1)
- 01:860:351,352 Structure of the Russian Language (3,3)
- 01:860:451 Introduction to Slavic Linguistics (3)
- 01:860:452 Seminar in Slavic Linguistics (3)
- 01:940:362 Spanish Phonetics and Phonology (3)
- 01:940:363 Bilingualism in the Spanish-Speaking World (3)

- 01:940:364 Contrastive Analysis in Spanish and English (3)
- 01:940:417 History of the Spanish Language (3)
- 01:940:419 Dialectology of the Spanish-Speaking World (3)

Other courses, including courses offered through the Graduate School–New Brunswick, may be selected in consultation with the director of the linguistics program.

Certificate Program

The certificate in Romance linguistics is an interdisciplinary curriculum designed for students in any major who wish to gain expertise in the structure of the Romance languages, which are historically derived from Latin and are currently spoken across Europe and the Americas. The program provides a grounding in linguistic theory coordinated with the study of the structure, history, and/or social context of French, Italian, Latin, and Spanish.

Requirements

The Romance linguistics certificate requires the completion of seven courses (21 credits) with a grade of C or better in each course, chosen with appropriate distribution from the course list below. In addition, students must demonstrate knowledge of at least two Romance languages by the completion of the program.

Course Requirements

1. 01:615:201 Introduction to Linguistic Theory (3)
2. 01:615:340 Romance Linguistics (3)
3. One course from among:
 - 01:615:305 Syntax (3)
 - 01:615:315 Phonology (3)
 - 01:615:325 Semantics (3)
4. Four courses from among:
 - 01:190:421 Indo-European Origins of the Classical Languages (3)
 - 01:420:332 French Phonetics and Applied Linguistics (3)
 - 01:420:333 Introduction to French Syntax (3)
 - 01:420:403 History of the French Language (3)
 - 01:420:407 Advanced French Syntax (3)
 - 01:560:304 Introduction to Italian Linguistics (3)
 - 01:940:362 Spanish Phonetics and Phonology (3)
 - 01:940:363 Bilingualism in the Spanish-Speaking World (3)
 - 01:940:364 Contrastive Analysis in Spanish and English (3)
 - 01:940:417 History of the Spanish Language (3)
 - 01:940:419 Dialectology of the Spanish-Speaking World (3)

Other Requirements

Knowledge of two Romance languages must be established *either* by completing at least one course at the 200 level or higher in each language with a grade of C or better, *or* by placement in the 200 level or higher (proof required). For the purpose of this certificate, the Romance languages are considered to be Latin, Catalan, French, Provençal / Occitan, Italian, Portuguese / Galician, Romanian, any Rhaeto-Romance variety, Spanish / Castilian, or Sardinian. Certificate students who are native speakers of Romance varieties for which there is no placement test or no course available at Rutgers–New Brunswick / Piscataway may submit other proof of their language abilities for validation by a certificate adviser.

Candidates must have their program approved by a Romance linguistics certificate adviser, who is appointed by the chair of the Department of Linguistics. Majors from any field are welcome to enroll in the certificate program. Substitutions for the above courses may be made only with the approval of a certificate adviser.

Candidates for the certificate are encouraged to study abroad, with either the Rutgers Study Abroad programs in France, Italy, Mexico, Spain, among others, or another accredited university program. Courses taken abroad may be offered in substitution for those in the above course list; their suitability must be evaluated by a certificate adviser on a case-by-case basis. Candidates will be required to show documentation (catalog/brochure description, syllabus, texts, exams, etc.) of the type and content of the course being evaluated. Senior candidates who take a seminar or pursue an honors thesis project that relates to Romance linguistics may, with permission of the certificate adviser, offer one such course as a substitute for one of those required above.

Most upper-level courses have prerequisites, and in the language departments, these prerequisite courses are typically taught in the target language.

Courses

01:615:101. INTRODUCTION TO THE STUDY OF LANGUAGE (3)

May not be used for major credit.

Wide-ranging examination of human language as a social, cultural, cognitive, historical, and formal phenomenon.

01:615:201. INTRODUCTION TO LINGUISTIC THEORY (3)

Required for majors.

Structural properties of human language as illuminated by modern linguistic theory. Sentence structure, sound patterns, word form, aspects of meaning. Principles of Universal Grammar.

01:615:305. SYNTAX (3)

Prerequisite: 01:615:201.

Structure of phrases and sentences in natural language. Universal Grammar and interlinguistic variation. X-bar theory. Case, NP- and Wh-movement, anaphora, binding, government. Lexical representation. Logical form.

01:615:315. PHONOLOGY (3)

Prerequisite: 01:615:201.

Sound structure of language. Phonetic underpinnings, phonological representation, rule systems, constraint interaction. Syllable structure; feature geometry; vowel harmony; stress, accent, and tone.

01:615:325. SEMANTICS (3)

Prerequisite: 01:615:201.

Meaning in natural language. Construction of the meaning of the whole from the meaning of the parts. Syntactic structure and semantic interpretation. Model theoretic semantics.

01:615:330. HISTORICAL LINGUISTICS (3)

Prerequisite: 01:615:201.

Change of language structure through time. Methods of reconstructing dead languages. Syntactic and phonological rule systems as locus of change. Language families; the deep reconstruction controversy.

01:615:340. ROMANCE LINGUISTICS (3)

Prerequisite: 01:615:201.

Comparison of principal syntactic and phonological structures of French, Spanish, Italian, and other Romance languages. Stress patterns, vowel and consonant shifts. Pro-drop, inflection, inversion. Contrast with English.

01:615:350. LANGUAGE AND CONTEXT (3)

Prerequisite: 01:615:201.

Linguistic structure above the sentence level, relating language to context of use. Speech acts, conversational maxims, presupposition and implicature, deixis.

01:615:360. THEORIES OF LANGUAGE (3)

Prerequisite: 01:615:201.

Major 20th-century approaches to scientific investigation of language. Impact of linguistic theory on psychology, philosophy, literary theory, and anthropology.

01:615:371. PSYCHOLOGY OF LANGUAGE (3)

Prerequisite: 01:615:201. Credit not given for both this course and 01:830:351.

Production, perception, and acquisition of language at the level of sound (phonology), words (morphology and the lexicon), and grammar (syntax).

01:615:373. LANGUAGE ACQUISITION (3)

Prerequisite: 01:615:201. Recommended: 01:615:441 or 371. Credit not given for both this course and 01:830:353.

Empirical and theoretical studies of the acquisition of syntax, morphology, and phonology; word learning, the neural bases of language acquisition, language disorders, and learnability theory.

01:615:411. MORPHOLOGY (3)

Prerequisite: 01:615:305, 315, or 325.

Structure of words in natural language. Word formation and syntax. Effects of word structure on sound patterning. Inflection, derivation, compounding, headedness, scope of affixes.

01:615:421. LANGUAGE TYPOLOGY (3)

Prerequisite: 01:615:305.

Similarities and differences between grammatical systems, with focus on syntax. Role of principled variation in Universal Grammar. Overt and nonovert movement, pro-drop, case marking, anaphora. Markedness.

01:615:431. INVESTIGATIONS INTO AN UNFAMILIAR LANGUAGE (3)

Prerequisite: 01:615:305, 315, or 325.

Study of the linguistic structure of an unfamiliar language, based on in-class work with a native-speaker consultant.

01:615:441. LINGUISTICS AND COGNITIVE SCIENCE (3)

Prerequisite: 01:615:305, 315, or 325.

Linguistic theory and the human mind/brain. Acquisition and processing of natural language. Parsing. Formal learning. Language deficits. Symbolic and connectionist approaches to language.

01:615:451. PHONETICS (3)

Prerequisite: 01:615:305, 315, or 325.

Articulatory mechanisms of speech. Physical characteristics of speech sounds; interpretation of spectrograms. Description and transcription of the sounds of the world's languages.

01:615:471. SELECTED TOPICS IN LINGUISTICS (3)

Prerequisite: 01:615:305, 315, or 325.

Study of selected areas in linguistics.

01:615:493,494. INDEPENDENT STUDY (3,3)

Prerequisites: Permission of major adviser and instructor.

Independent research carried out under supervision of linguistics faculty member.

01:615:495,496. HONORS IN LINGUISTICS (3,3)

Prerequisites: Senior status; permission of major adviser and instructor.

Supervised research and writing of an honors thesis.

LIVINGSTON COLLEGE COURSES

(See Arts and Science 090)

MANAGEMENT 620

(See Rutgers Business School:
Undergraduate—New Brunswick section)

MARINE SCIENCES 628

Department of Marine and Coastal Sciences / Cook College

Web Site: <http://marine.rutgers.edu>

Chairperson: Gary L. Taghon

Undergraduate Director: Judith P. Grassle

Professors:

Kenneth W. Able, B.S., *Marian*; Ph.D., *William and Mary*
John Dighton, B.Sc., *London Polytechnic*; M.Sc., *Durham*; Ph.D.,
Queen Elizabeth (London)
Paul G. Falkowski, B.S., M.A., *CUNY (City College)*; Ph.D., *British Columbia*
Susan E. Ford (Emeritus), B.A., *Rutgers*; Ph.D., *Duke*
Scott M. Glenn, B.S., *Rochester*; Sc.D., *Massachusetts Institute of*
Technology/Woods Hole Oceanographic Institution
J. Frederick Grassle, B.S., *Yale*; Ph.D., *Duke*
Judith P. Grassle, B.S., *Queensland*; Ph.D., *Duke*
Dale B. Haidvogel, B.S., *Massachusetts Institute of Technology*; Ph.D., *Massachu-*
setts Institute of Technology/Woods Hole Oceanographic Institution
Richard A. Lutz, B.A., *Virginia*; Ph.D., *Maine*
James R. Miller, B.S., *Massachusetts Institute of Technology*; M.A.,
Ph.D., Maryland
Karl F. Nordstrom, B.A., M.S., Ph.D., *Rutgers*
Eric N. Powell, B.S., *Washington*; M.S., Ph.D., *North Carolina*
Norbert P. Psuty (Emeritus), B.S., *Wayne State*; M.S., *Miami*; Ph.D., *Louisiana*
Peter A. Rona, B.A., *Brown*; M.S., Ph.D., *Yale*
Sybil P. Seitzinger, B.S., *Boston*; Ph.D., *Rhode Island*

Associate Professors:

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Uwe Kils, Ph.D., *Christian Albrechts (Kiel)*
Yair Rosenthal, B.Sc., M.S., *Hebrew (Israel)*; Ph.D., *Massachusetts Institute of*
Technology/Woods Hole Oceanographic Institution
Oscar M. Schofield, B.A., Ph.D., *California (Santa Barbara)*
Robert M. Sherrell, B.A., *Oberlin*; Ph.D., *Massachusetts Institute of Technology/*
Woods Hole Oceanographic Institution
Gary L. Taghon, B.S., *Purdue*; M.S., Ph.D., *Washington*

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Jennifer A. Francis, B.A., *San Jose State*; Ph.D., *Washington*
Michael Kennish, B.A., M.S., Ph.D., *Rutgers*
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Yunqing Zhang, B.S., *Peking*; Ph.D., *Princeton*

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Woods Hole Oceanographic Institution; Ph.D., *Rutgers*
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Daniel M. Grzebyk, Ph.D., *Aix-Marseille II (France)*
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Liping Wei, B.S., M.S., *Nanjing (China)*; Ph.D., *Cornell*

Marine science is the study of the marine environment and its interactions with the earth, the biosphere, and the atmosphere. It is therefore an interdisciplinary science requiring a knowledge of the principles of physics, geology and geophysics, mathematics, chemistry, and biology. A major in marine sciences provides students with a broad curriculum in the sciences, which shows how the different scientific disciplines can be brought to bear on understanding marine processes and managing ocean resources wisely. The major prepares a student for many future paths: further study in graduate school in oceanography or in one of the basic disciplines; employment in one of the many applied marine science or environmental fields; a career in environmental management in the civil service; or teaching in secondary schools.

The marine sciences courses emphasize improvement of oral and written communication skills, and facility in accessing, reading, and understanding the current primary literature in marine sciences. Many of the courses include hands-on, experiential learning in the laboratory or in the field. Students also are required to have 3 credits of experience-based education, by completing at least one term or summer of supervised, independent research.

Entry to the major requires a grade-point average of at least 2.0 in the basic required mathematics and science courses (i.e., Calculus I and II, General Biology I and II, General Chemistry I and II, General Physics I and II) completed by the time of declaration. This is a credit-intensive major, and students are advised to contact the undergraduate director during their second term.

The curriculum includes the following options: Option A, Marine Biology/Biological Oceanography; Option B, Marine Chemistry; Option C, Marine Geology; and Option D, Physical Oceanography. The required core courses are listed below. For course descriptions, see Cook College section of this catalog, Marine Science 628.

Required Core Courses (30 credits)

- | | |
|----------------|--|
| 01:119:101-102 | General Biology (4,4) |
| 01:160:161-162 | General Chemistry (4,4) or 01:160:163-164 Honors General Chemistry (4,4) |
| 01:160:171 | Introduction to Experimentation (1) |
| 11:628:200 | Marine Sciences (4) or 01/11:628:320 Dynamics of Marine Ecosystems (4) |
| 11:628:364 | Oceanographic Methods and Data Analysis (3) |
| 11:628:497,498 | Special Problems in Marine and Coastal Sciences (BA,BA) or an equivalent experience in independent research, which includes both oral and written presentation of the scientific results (3 credits). Ethical issues in marine sciences are addressed within the framework of this experience. |
| 01:960:401 | Basic Statistics for Research (3) |

Options

Option A, Marine Biology/Biological Oceanography. This option prepares students for professional opportunities or graduate study in oceanography or the biological sciences. Concentrations within this option permit students to focus their studies at different levels of organization; e.g., at the molecular, cellular, organismic, community, or ecosystem level. Students fulfilling the requirements for this major

option also may fulfill the requirements for a major in the biological sciences or natural resource management (see the Cook College chapter), depending on their choice of electives.

In addition to the core courses, the following courses are required.

Required Courses (51–58)

- 01:146:356-357 Systems Physiology and Systems Physiology Laboratory (3,1) or 01:447:498 Bacterial Physiology (3) or 11:704:360 Animal Physiological Ecology (3) or 11:776:382 Plant Physiology (4)
- 01:160:307-308 Organic Chemistry (4,4) or 01:160:315-316 Principles of Organic Chemistry (4,4) or 01:160:209 Elementary Organic Chemistry (3) and 11:115:301, 313 Introductory Biochemistry and Introductory Biochemistry Laboratory (3,1)
- 14:440:127 Introduction to Computers for Engineers (3) or equivalent
- 01:447:380 Genetics (4) or 11:776:305 Plant Genetics (4)
- 01:447:390 General Microbiology (4) or 11:628:321 Ichthyology (4) or 11:704:323 Ornithology (4) or 11:704:324 Invertebrate Zoology (4) or 11:704:325 Vertebrate Zoology (4) or 11:770:402 Mycology: Fungi in the Environment (3)
- 01:460:476 History of the Earth System (3) or 11:670:451 Remote Sensing of the Ocean and Atmosphere (3) or 11:704:240 Behavioral Biology (4) or 11:704:486 Principles of Evolution (3)
- 11:628:462 Ocean Ecology (4)
- 01:640:1 __,1__ Two terms of calculus (4,4)
- 11:704:351 Principles of Applied Ecology (4)
- 01:750:193-194 Physics for the Sciences (4,4) or 01:750:203-204 General Physics (3,3) and 01:750:205-206 General Physics Laboratory (1,1)

At least four credits from the following (4-6):

- 11:628:302 Marine Ecosystems Research (3)
- 11:628:303 Oceanographic Scientific Inquiry (3)
- 11:628:305 Field Course: Coral Reefs (3)
- 11:628:309 Molecular Oceanography (3)
- 11:628:317 Aquaculture (3)
- 11:628:340 Identification of Marine Invertebrates (2)
- 11:628:341 Hydrothermal Vents (3)
- 11:628:342 Marine Conservation (3)
- 01/11:628:451 Physical Oceanography (4)
- 01/11:628:472 Chemical Oceanography (4)

Option B, Marine Chemistry. This option prepares students for professional opportunities or graduate study in oceanography or chemistry. Students fulfilling the requirements for this major option can fulfill the requirements for a major in chemistry with 6.5 additional credits of specific chemistry courses and 3 additional credits in mathematics. Beginning with the class of 2005, chemistry majors in options B, C, and D also must take a biochemistry class for ACS certification [01:694:407 Molecular Biology and Biochemistry (3) or 11:115:403 General Biochemistry (3)].

Required Courses (52–58)

- 01:160:251 Analytical Chemistry (2,5)
- 01:160:307-308 Organic Chemistry (4,4) or 01:160:315-316 Principles of Organic Chemistry (4,4)
- 01:160:311 Organic Chemistry Laboratory (2)
- 01:160:323-324 Physical Chemistry (3,3) or 01:160:341-342 Physical Chemistry: Biochemical Systems (3,3)
- 01:160:329 Experimental Physical Chemistry (2,5)
- 01:160:348 Instrumental Analysis (3)
- 11:628:472 Chemical Oceanography (4)
- 01:640:151-152 Calculus for Mathematical and Physical Sciences (4,4)
- 01:640:251 Multivariable Calculus (4)
- 01:750:201-202 Extended General Physics (5,5) or 01:750:203-204 General Physics (3,3) or 01:750:271,272,273 Honors Physics (3,3,3)
- 01:750:205-206 General Physics Laboratory (1,1) or 01:750:275,276 Classical Physics Laboratory (1,1)

At least four credits from the following (4-6):

- 01:160:439 Physical Chemistry of the Environment (3)
- 11:375:416 Chemical Reactions in the Environment (3)
- 11:375:444 Water Chemistry (3)
- 11:375:451 Soil Chemistry (4)
- 01:460:401 Introduction to Geochemistry (4)
- 01:460:417 Environmental Geochemistry (3)
- 01/11:628:451 Physical Oceanography (4)
- 01/11:628:462 Ocean Ecology (4)
- 11:670:323 Thermodynamics of the Atmosphere (3)
- 11:670:451 Remote Sensing of the Ocean and Atmosphere (4)

Option C, Marine Geology. This option prepares students for graduate study in oceanography, geology, environmental science or an allied field, and for employment directly following the B.S. Students fulfilling the requirements for this major option can fulfill the requirements for a geology major by taking three additional courses in geology: 01:460:303 Paleontology, 01:460:307 Structural Geology, and 01:460:410 Field Geology.

Required Courses (42–51)

- 01:198:221 Numerical Problems and Computer Programming (4) or 14:440:127 Introduction to Computers for Engineers (3) or 01:460:418 Geological Modeling (3)
- 01:460:101 Introductory Geology (3)
- 01:460:103 Introductory Geology Laboratory (1)
- 01:460:301 Mineralogy (4) and
- 01:460:302 Petrology (4) or 01:460:331 Fundamentals of Mineralogy and Petrology (4)
- 01:460:340 Sedimentology (4) and
- 01:460:341 Stratigraphy (4) or 01:460:330 Sedimentary Geology (4)
- 01:460:412 Introduction to Geophysics (4)
- 01:460:451 Marine Geology (3)
- One of the following courses:
 - 11:628:451 Physical Oceanography (4)
 - 11:628:462 Ocean Ecology (4)
 - 11:628:472 Chemical Oceanography (4)
- 01:640:151-152 Calculus for Mathematical and Physical Sciences (4,4)
- 01:750:193-194 Physics for the Sciences (4,4) or 01:750:203-204 General Physics (3,3) and 01:750:205-206 General Physics Laboratory (1,1)

Option D, Physical Oceanography. This option prepares students for graduate study in physical oceanography, meteorology, fluid dynamics, or a related field; for employment within environmental agencies or consulting firms; and for technical positions within marine sciences.

Required Courses (46–52)

- 01:198:323 Numerical Analysis and Computing (4)
- 14:440:127 Introduction to Computers for Engineers (3)
- 11:628:451 Physical Oceanography (4)
- 01:640:151-152 Calculus for Mathematical and Physical Sciences (4,4)
- 01:640:244 Differential Equations for Engineering and Physics (4) or 01:640:252 Elementary Differential Equations (3)
- 01:640:251 Multivariable Calculus (4)
- 01:750:201-202 Extended General Physics (5,5) or 01:750:203-204 General Physics (3,3) or 01:750:271,272,273 Honors Physics (3,3,3)
- 01:750:205-206 General Physics Laboratory (1,1) or 01:750:275,276 Classical Physics Laboratory (1,1)

Four of the following courses with at least one course from each group:

Group A

- 01:640:250 Introductory Linear Algebra (3)
- 01:640:421 Advanced Calculus for Engineering (3)
- 14:650:312 Fluid Mechanics (3)

Group B

- 11:628:452 Geophysical Data Analysis (3)
- 01/11:628:462 Ocean Ecology (4) or 01/11:628:472 Chemical Oceanography (4)
- 11:670:323 Thermodynamics of the Atmosphere (3)
- 11:670:324 Dynamics of the Oceans and Atmosphere (3)
- 11:670:451 Remote Sensing of the Ocean and Atmosphere (3)

Minor Requirements (18 credits)

A minor in marine sciences is offered for students who wish to show that their studies have included a focus on some aspect of marine science. Two terms of biology, calculus, chemistry, physics, and an introductory geology course are recommended and/or required for many of the courses in the program.

Required Course (4)

- 11:628:320 Dynamics of Marine Ecosystems (4)

Electives (11–13)

- 11:015:401 Colloquium: Earth Systems Science (3)
- 11:374:308 Human Ecology of Maritime Regions (3)
- 11:375:445 Problems in Aquatic Environments (3)
- 01:450:417 Coastal Geomorphology (3)
- 01:460:120 (11:628:120) Introduction to Oceanography (3) or 01:460:209 Exploration of the Oceans (3)
- 01:460:303 Paleontology (4)
- 01:460:330 Sedimentary Geology (4)
- 01:460:340 Sedimentology (4)
- 01:460:341 Stratigraphy (4)
- 01:460:451 Marine Geology (3)
- 01:460:476 History of the Earth System (3)
- 11:628:300-310 Topics in Marine and Coastal Sciences (1-3)

- 11:628:317 Aquaculture (3)
- 11:628:321 Ichthyology (4)
- 11:628:340 Identification of Marine Invertebrates (2)
- 11:628:341 Hydrothermal Vents (3)
- 11:628:342 Marine Conservation (3)
- 11:628:352 Ocean, Coastal, and Estuarine Circulation (3)
- 01:628:364 Oceanographic Methods and Data Analysis (3)
- 11:628:401 Science in Shoreline Management (3)
- 11:628:404 Fungi and Ecosystems (3)
- 01/11:628:451 Physical Oceanography (4)
- 01:628:452 Geophysical Data Analysis (3)
- 01/11:628:462 Ocean Ecology (4)
- 01/11:628:472 Chemical Oceanography (4)
- 01:628:497,498 Special Problems in Marine and Coastal Sciences (BA,BA)
- 11:670:323 Thermodynamics of the Atmosphere (3)
- 11:670:324 Dynamics of the Oceans and Atmosphere (3)
- 11:670:451 Remote Sensing of the Ocean and Atmosphere (3)
- 11:670:458 Air-Sea Interactions (3)
- 11:704:324 Invertebrate Zoology (4)
- 11:704:406 Fishery Science (3)
- 11:704:407 Research Methods in Fishery Science (3)
- 11:704:421 Wetland Ecology (3)
- 11:704:451 Ecosystems, Ecology, and Global Change (3)

Topics (11:628:___)

- 11:628:302 Marine Ecosystems Research (3)
- 11:628:303 Oceanographic Scientific Inquiry (3)
- 11:628:305 Field Course—Coral Reefs (3)
- 11:628:306 Marine Geochemistry (1)
- 11:628:308 Marine Biogeochemistry (2)
- 11:628:309 Molecular Oceanography (3)

MARKETING 630

(See Rutgers Business School:
Undergraduate—New Brunswick section)

MATHEMATICS 640

Department of Mathematics, Faculty of Arts and Sciences

Web Site: <http://www.math.rutgers.edu>

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Director of Undergraduate Program: Eugene R. Speer

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MATHEMATICS

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Major Requirements

The Department of Mathematics annually publishes a *Brochure for Math Majors* which contains detailed information about the math major program; copies of this brochure may be obtained at the department offices and on the web.

The requirements for a math major are as follows:

1. Three terms of calculus (01:640:151-152, and 251, or equivalent), Introductory Linear Algebra (01:640:250), and Elementary Differential Equations (01:640:252). Courses 01:640:250, 251, and 252 must be passed with grades of C or better. Majors normally should take both 01:640:250 and 251 in the first term of their sophomore year.
2. 01:198:111 Introduction to Computer Science with a grade of C or better. (14:332:252 Electrical Engineering may be substituted for 01:198:111.) It is recommended strongly that this course be completed by the end of the second term of the sophomore year.
3. The completion of all the requirements in one of the mathematics major options listed below. (Students must notify the mathematics department in writing if they are not following the standard mathematics major option. Courses in other departments may not be substituted.)

Option A, Standard Mathematics (Curriculum Code 640).

In addition to the requirements above, to complete the standard mathematics major a student must pass eight 300- to 400-level mathematics courses, excluding 01:640:491,492. All but one of these courses (curriculum code 640) must be passed with a grade of C or better. At least four of the upper-level courses used to complete the major must be taken at Rutgers–New Brunswick/Piscataway, including one of 01:640:311, 312, 411, 412, and one of 01:640:350, 351, 352, 451, 452. An appropriate Rutgers graduate mathematics course may be substituted for the required analysis and/or algebra course, with departmental approval.

Recommended are probability (01:640:477), statistics (01:640:481), a course in mathematical modeling (01:640:321, 338, or 424), and a course in discrete mathematics (01:640:338, 354, 428, or 454). Also recommended is a two-term sequence of mathematically oriented courses in some other discipline; a list of suggested courses can be found in the *Brochure for Math Majors*.

Option B, Computer-Oriented Mathematics. Replace the eight courses at the 300 to 400 level with six mathematics courses at the 300 to 400 level, including 01:640:311 or 411, 350 or 351 or 451, 373, 477, and either 374 or 454 (but excluding 01:640:491,492); and four computer science courses, including 01:198:112, 211, 344, and one elective from the following: 01:198:314, 416, 424, 425, 436, and 452. At least four of the upper-level mathematics courses (curriculum code 640) must be taken at Rutgers–New Brunswick/Piscataway, including one of 01:640:311, 312, 411, or 412, and one of 01:640:350 or 351. Prerequisites for some computer science courses may be satisfied by appropriate math courses. Students should consult the head computer science adviser. (This option is not available to students who are majoring in both mathematics and computer science.)

Option C, Honors Track. The Department of Mathematics offers a special honors track to qualified students. Admission to the honors track is by application which is available from the mathematics undergraduate office or from the mathematics department web site. Students should normally apply no later than the end of the first term of their

sophomore year. Students in the honors track will have their progress reviewed by the Honors Committee, and are expected to earn Bs or better in their advanced math courses (300 level and above). Students who successfully complete the honors track with a GPA in their upper-level math courses of at least 3.4 will qualify for graduation with honors in mathematics.

Each student in the honors track will be assigned a faculty adviser. Together with the adviser, he or she will formulate a proposed course plan, subject to the approval of the mathematics Honors Committee. This course of study will normally include 01:640:192, 291, and 292 (01:640:151, 152, 251, and 252 may be accepted if approved by the Honors Committee); 01:198:111, 01:640:250, 300H, 411-412, and 451-452; two terms of 1-credit honors seminar, at least one at the junior/senior level; and four mathematics electives as approved by the Honors Committee.

Biomathematics Interdisciplinary Major (Curriculum Code 122)

The major in biomathematics requires 63–67 credits distributed as follows: mathematics 33 credits, and biology and cognate fields 30–34 credits. Students must earn a minimum grade-point average of 2.0 in courses credited toward the major. See *Brochure for Math Majors*.

Core Biology and Chemistry required courses:

- 01:119:101-102 General Biology I and II (4,4),
or equivalent
- 01:160:161-162 General Chemistry I and II (4,4),
or equivalent
- 01:160:171 Introduction to Experimentation (1)

Mathematics required courses:

- 01:640:151, 152, 251 Calculus I, II, and III (4,4,4)
- 01:640:250 Introductory Linear Algebra (3)
- 01:640:252 Elementary Differential Equations (3)
- 01:640:336 Differential Equations in Biology (3)
- 01:640:338 Discrete and Probabilistic Models in Biology (3)
- 01:640:477 Mathematical Theory of Probability (3)
- 01:640:481 Mathematical Theory of Statistics (3)

One of the following courses:

- 01:640:350 Linear Algebra (3)
- 01:640:373 Numerical Analysis (3)
- 01:640:423 Elementary Partial Differential Equations (3)
- 01:640:428 Graph Theory (3)
- 01:640:454 Combinatorics (3)
- 01:640:478 Probability II (3)

Required lab, one of the following:

- 01:119:382 (1); 14:125:315 (1); 01:146:357 (1); 01:146:475 (1)

Note: 01:447:390 is a 4-credit elective (see below) and includes a lab that satisfies this requirement.

Electives:

Four courses from the following list. 01:447:380 is highly recommended. No more than one course from 14:125 (biomedical engineering) can count as an elective.

- 01:146:245 Fundamentals of Neurobiology (3)
- 01:146:270 Fundamentals of Cell and Developmental Biology (3)
- 01:146:302 or 447:302 Computers in Biology (3)
- 01:146:356 Systems Physiology (3)
- 01:146:445 Advanced Neurobiology (3)
- 01:146:470 Advanced Cell Biology (3)

- 01:146:474 Immunology (3)
- 01:160:305 (3) or 307 (4) or 315 (4) Organic Chemistry
- 01:160:306 (3) or 308 (4) or 316 (4) Organic Chemistry
- 16:215:513 Population Genetics (447:380) (3)
- 01:447:380 Genetics (4)
- 01:447:384 Genetic Analysis (4)
- 01:447:390 General Microbiology (4)
- 01:447:480 Topics in Molecular Genetics (3)
- 01:447:486 Evolutionary Genetics (3)
- 11:704:351 Principles of Applied Ecology (4)
- 11:704:486 Principles of Evolution (3)

No more than one of:

- 01:146:478 Molecular Biology (3)
- 01:694:301 Introductory Biochemistry and Molecular Biology (3)
- 01:694:407 Molecular Biology and Biochemistry I (3)
- 01:694:408 Molecular Biology and Biochemistry II (3)

No more than one of:

- 14:125:403 Cardiovascular Engineering (3)
- 14:125:407 Fundamentals of Computer Tomography (3)
- 14:125:410 Sensory Processes, Mechanisms, and Computational Models (3)

Statistics-Mathematics Interdisciplinary Major (Curriculum Code 961)

See Statistics 960.

Grade Requirements for Mathematics Majors

To be admitted to the mathematics major program, a student normally must have completed three terms of calculus with a grade of C or better in each course. To continue as a mathematics major, a student must make satisfactory progress toward completing the program. Satisfactory progress for a full-time student normally means passing at least one mathematics course at an appropriate level each term with a grade of C or better. To complete the mathematics major program, or any of the options, a student must receive grades of C or better in 01:640:250, 251, and 252 and in all but one of the further mathematics courses. A student also must receive grades of C or better in the courses in other departments (e.g., computer science) used to fulfill the requirements of the program.

Minor Requirements

A minor in mathematics consists of three terms of calculus (ordinarily 01:640:151-152, 251), linear algebra (01:640:250), and four additional 3- or 4-credit courses, one of which may be either 01:640:244 or 252, and the rest of which must be 300- or 400-level mathematics courses (curriculum code 640). Three of the four courses beyond 01:640:251 must be taken at Rutgers–New Brunswick/Piscataway. Grades of C or better are required in 01:640:250 and 251; at most, one D is permitted in the four courses beyond 01:640:250.

Departmental Honors Programs

Eligible first-year students and sophomores may take 01:640:192, 291, and 292, which are honors courses in second-, third-, and fourth-term calculus, respectively. Entry into these courses is determined by the department and is based on the student's previous performance in mathematics. The department occasionally offers honors sections of other courses.

To graduate with departmental honors, a mathematics major must have a cumulative grade-point average of at least 3.4 or better in mathematics courses at the 300 level or above and an overall cumulative grade-point average of at least 3.0, and must complete successfully two courses that are either approved independent study courses, approved graduate courses, or approved sections of 300- or 400-level courses, or approved project. A student who would like to have a course count toward the two-course honors requirement must apply at the department office no later than the first week of classes of the term during which he or she takes the course. The determination of whether a candidate graduates with departmental honors depends on the student's total performance in mathematics (including the written exposition of mathematical ideas). A more detailed description of the honors program can be obtained at the departmental offices or on the web.

Preparation for Secondary School Teaching

There are several paths that Rutgers students can follow to prepare for a career in secondary school teaching.

1. The Five Year Mathematics Teacher Preparation Program in the Rutgers University Graduate School of Education (GSE) integrates the mathematics undergraduate program with teaching preparation, leading to a B.A. degree in mathematics, an M.Ed. degree, and New Jersey teacher certification. Students must apply for admission (usually in the junior year), complete a standard mathematics major, satisfy undergraduate requirements set by GSE as well as those set by the student's undergraduate college, and, in the fifth year, complete additional course work, including an additional mathematics elective, and do a student teaching internship. The nine required mathematics courses at the 300 to 400 level must include 01:640:300, 311, 351, 435, 436, 477, 481, and an applied math course.

2. After completing the mathematics major, students may obtain an M.Ed. and New Jersey teacher certification through the Rutgers GSE Postbaccalaureate Certification Program or through postbaccalaureate certification programs at other institutions. Application to the program may be made in the fall of a student's senior year or anytime after graduation. This 45-credit program requires course work in both mathematics and education as well as a student teaching internship, and may be pursued either full time or part time.

Other paths to secondary school mathematics teaching include (1) "alternate route" certification, which usually requires a period of apprenticeship in a high school and 200 hours of course work at a cooperating college or university, and (2) teaching without certification in a private independent or parochial school.

Prospective teachers should contact the mathematics department and/or the Office of Teacher Education in the Graduate School of Education as early as possible in their undergraduate careers and should stay informed about the rapidly evolving procedures and standards for certification. Further information on all Rutgers teaching programs can be obtained from GSE or from the web site <http://www.gse.rutgers.edu>.

Before Taking Mathematics Courses

Entering first-year students and most transfer students are required to take the mathematics placement test before registering for any mathematics course at Rutgers–New

Brunswick/Piscataway. Students will be informed by their college of the times for taking the test.

Courses

The following abbreviations are used in the course listing.

1. CALC1 indicates that the prerequisite is any one of 01:640:135, 151, 153, or 191.
2. CALC2 indicates that the prerequisite is any one of 01:640:152, 154, or 192.
3. CALC3 indicates that the prerequisite is any one of 01:640:251 or 291.
4. CALC4 indicates that the prerequisite is any one of 01:640:244, 252, or 292.
5. CR1 indicates that students may not receive credit for more than one of the first-term calculus courses 01:640:135, 151, 153, or 191.
6. CR2 indicates that students may not receive credit for more than one of the courses including second-term topics 01:640:136, 138, 152, 154, or 192.
7. CR3 indicates that students may not receive credit for more than one of the courses including third-term topics 01:640:251 or 291.
8. CR4 indicates that students may not receive credit for more than one of the fourth-term courses 01:640:244, 252, or 292.

01:640:011. PRECALCULUS I WORKSHOP (E2)

Corequisite: 01:640:111.

Workshop to accompany 01:640:111.

01:640:012. PRECALCULUS II WORKSHOP (E2)

Corequisite: 01:640:112.

Workshop to accompany 01:640:112.

01:640:025. ELEMENTARY ALGEBRA (E3)

Operations with polynomials, rational and square root expressions, exponents, solving linear and quadratic equations, basic applications and graphing.

01:640:026. INTERMEDIATE ALGEBRA (E3)

Prerequisite: 01:640:025 or appropriate performance on the placement test in mathematics.

Absolute value equations and inequalities, radical expressions, rational exponents, quadratic equations and inequalities, introduction to functions, and topics in analytic geometry.

01:640:027. ELEMENTS OF ALGEBRA (E3)

Prerequisites: Acceptable performance on placement test and permission of department. Not for students preparing for calculus.

Review of fundamentals of elementary and intermediate algebra. Exponents, polynomials, solution of linear and quadratic equations. Focus on mathematical translation of verbal statements.

01:640:103. TOPICS IN MATHEMATICS FOR THE LIBERAL ARTS (3)

An elementary course for liberal arts majors. Prerequisite: 01:640:026 or 027 or appropriate performance on the placement test in mathematics. May not be used as an elective for the math major or minor.

Topics emphasizing fundamental ideas of mathematics, selected from set theory, mathematical logic, game theory, number theory, algebra, and geometry.

01:640:104. ELEMENTARY COMBINATORICS AND PROBABILITY (3)

An elementary course for liberal arts majors. Prerequisite: 01:640:026 or appropriate performance on the placement test in mathematics. May not be used as an elective for the math major or minor.

Introduction to the basic concepts of combinatorial mathematics, probability, and statistics.

01:640:105. INTRODUCTION TO LINEAR MATHEMATICS (3)

An elementary course for liberal arts majors. Prerequisite: 01:640:026 or appropriate performance on the placement test in mathematics. May not be used as an elective for the math major or minor.

Systems of linear equations, matrices, linear algebra, and linear programming.

01:640:111-112. PRECALCULUS I,II (2,2)

Prerequisite: 01:640:026 or appropriate performance on the placement test in mathematics. Corequisites: 01:640:011 for 111; 01:640:012 for 112. These two courses cover the same material as 01:640:115, but at a slower pace. Students may not receive more than 4 normal credits for any combination of 01:640:111-112 and 115.

Math 111: Algebraic expressions, algebraic equations, inequalities, functions, and graphing. Math 112: Exponential, logarithmic, and trigonometric functions.

01:640:115. PRECALCULUS COLLEGE MATHEMATICS (4)

Prerequisite: 01:640:026 or appropriate performance on the placement test in mathematics. Students may not receive more than 4 normal credits for any combination of 01:640:111-112 and 115. Students who feel unprepared for this course (who have not had math for several years or whose mathematical background is weak) should consider taking 01:640:111-112, which covers the same material as 115 but at a slower pace and begins with an extensive review of intermediate algebra.

Algebraic expressions, algebraic equations, inequalities, functions, graphing. Exponential, logarithmic, and trigonometric functions.

01:640:131. CALCULUS I PRACTICUM (1)

Corequisite: 01:640:135.

Application of algorithms studied in 01:640:135 to problems.

01:640:132. CALCULUS II PRACTICUM (1)

Corequisite: 01:640:136.

Application of algorithms studied in 01:640:136 to problems.

01:640:135-136. CALCULUS I,II (4,4)

For liberal arts majors. Prerequisite for 135: 01:640:112 or 115 or appropriate performance on the placement test in mathematics. Prerequisite for 136: CALC1. Credit restrictions: CR1, CR2.

Math 135: Analytic geometry, differential calculus with applications, logarithmic and exponential functions, introduction to the integral. Math 136: Continuation of Calculus I for students who do not intend to continue beyond 01:640:250. Survey of techniques and applications of calculus. Taylor series, differential equations, multivariate calculus.

01:640:138. CALCULUS II FOR THE BIOLOGICAL SCIENCES (4)

For biological sciences majors. Prerequisite: CALC1. Credit restrictions: CR2.

Techniques of integration, elementary differential equations and their applications to biological sciences, and an introduction to linear algebra. For students who do not intend to continue beyond 01:640:250.

01:640:151-152. CALCULUS FOR MATHEMATICAL AND PHYSICAL SCIENCES (4,4)

For mathematics, physics, computer science, statistics, chemistry, or engineering majors. Prerequisite for 151: 01:640:112 or 115 or appropriate performance on the placement test in mathematics. Prerequisite for 152: CALC1. Credit restrictions: CR1, CR2.

Math 151: Same topics as 01:640:135, with additional theory and numerical applications. Math 152: Techniques of integration, elementary differential equations, sequences, infinite series, Taylor series, parametric equations, polar coordinates.

01:640:153-154. INTENSIVE CALCULUS I,II (6,6)

For students satisfying the prerequisites for first-term calculus who are invited by the department. Credit restrictions: CR1, CR2.

Math 153: Intensive study of analytic geometry, differential calculus of elementary functions, applications, and introductory integral calculus with emphasis on the analysis and solution of problems and on mathematical exposition. Math 154: Intensive study, techniques of integration, polar coordinates, and series, with emphasis on solution of problems and on mathematical exposition.

01:640:157. CALCULUS I FOR MATHEMATICAL AND PHYSICAL SCIENCES PRACTICUM (1)

Corequisite: 01:640:151.

Application of algorithms studied in 01:640:151 to problems.

01:640:158. CALCULUS II FOR MATHEMATICAL AND PHYSICAL SCIENCES PRACTICUM (1)

Corequisite: 01:640:152.

Application of algorithms studied in 01:640:152 to problems.

01:640:171. HONORS INTRODUCTION TO DISCRETE MATH (4)

Prerequisite: Permission of department.

Introduction to the principal elementary problems, methods, and proof techniques of discrete mathematics.

01:640:191-192. HONORS CALCULUS I,II (4,4)

For students with a serious interest in mathematics. Credit restrictions: CR1, CR2. Grades of B or better are required to continue in the honors sequence.

These courses cover the same material as 01:640:151-152 but in a more thorough and demanding fashion.

01:640:195,196. SEMINAR IN MATHEMATICS I,II (1,1)

Prerequisite: Permission of department. Corequisite: Enrollment in a calculus course.

Discussion of selected topics in mathematics. For first- and second-year students.

01:640:244. DIFFERENTIAL EQUATIONS FOR ENGINEERING AND PHYSICS (4)

Prerequisite: CALC3. Credit restriction: CR4.

First- and second-order ordinary differential equations; introduction to linear algebra and to systems of ordinary differential equations.

01:640:250. INTRODUCTORY LINEAR ALGEBRA (3)

Prerequisite: CALC2 or 01:640:136 or 138.

Systems of linear equations, Gaussian elimination, matrices and determinants, vectors in two- and three-dimensional Euclidean space, vector spaces, introduction to eigenvalues and eigenvectors. Possible additional topics: systems of linear inequalities and systems of differential equations.

01:640:251. MULTIVARIABLE CALCULUS (4)

Prerequisite: CALC2. Credit restriction: CR3.

Analytic geometry of three dimensions, partial derivatives, optimization techniques, multiple integrals, vectors in Euclidean space, and vector analysis.

01:640:252. ELEMENTARY DIFFERENTIAL EQUATIONS (3)

Prerequisites: 01:640:250 and CALC3. Credit restriction: CR4.

First- and second-order ordinary differential equations; systems of ordinary differential equations.

01:640:291-292. HONORS CALCULUS III,IV (4,4)

Prerequisites: 01:640:191-192 or permission of department. Prerequisite for 292: 01:640:250. Credit restrictions: CR3, CR4. Grades of B or better are required to continue in the honors sequence.

Covers the same material as 01:640:251 and 252 in a more thorough and demanding fashion.

01:640:293. HONORS MATHEMATICS FOR THE PHYSICAL SCIENCES I (4)

Prerequisites: CALC3 and 01:750:227 or 272, or permission of department. Primarily for students majoring in the physical sciences or engineering. Credit not given for this course and 01:640:244, 250, and 252.

Selected topics from linear algebra and ordinary differential equations with illustrations of their use in the physical sciences and engineering.

01:640:300. INTRODUCTION TO MATHEMATICAL REASONING (3)

Prerequisite: CALC2 or permission of department.

Fundamental abstract concepts common to all branches of mathematics. Special emphasis placed on ability to understand and construct rigorous proofs.

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01:640:311. ADVANCED CALCULUS I (4)

Prerequisites: CALC4 and 01:640:300 or permission of department.

Introduction to language and fundamental concepts of analysis. The real numbers, sequences, limits, continuity, differentiation in one variable.

01:640:312. ADVANCED CALCULUS II (3)

Prerequisite: 01:640:311.

Series of numbers and functions, integration of functions of one variable, pointwise and uniform convergence, differential calculus in several variables, implicit and inverse function theorems.

01:640:321. INTRODUCTION TO APPLIED MATHEMATICS (3)

Prerequisite: CALC4.

Mathematical models of mechanical vibrations, population dynamics, and traffic flow, involving ordinary differential equations and nonlinear first-order partial differential equations.

01:640:336. DIFFERENTIAL EQUATIONS IN BIOLOGY (3)

Prerequisites: CALC4 and 01:640:250.

Models for biological processes based on ordinary and partial differential equations. Topics selected from models of population growth, predator-prey dynamics, biological oscillators, reaction-diffusion systems, pattern formation, neuronal and blood flow physiology, neural networks, and biomechanics.

01:640:338. DISCRETE AND PROBABILISTIC MODELS IN BIOLOGY (3)

Prerequisites: 01:640:250, 251, and either 01:640:477, 01:960:381, 01:198:206, 14:540:210, or 14:332:321. Only one of 01:640:338 and 339 may count for credit toward any math major or minor option.

Models for biological processes based on discrete mathematics (graphs, combinatorics), probabilistic and optimization methods, Markov chains and Markov fields, Monte-Carlo simulation, maximum-likelihood estimation, entropy, and information. Applications selected from epidemiology, inheritance and genetic drift, combinatorics and sequence alignment of nucleic acids, energy optimization in protein structure prediction, and topology of biological molecules.

01:640:339. MATHEMATICAL MODELS IN THE SOCIAL SCIENCES (3)

Prerequisites: 01:640:250 and either 01:640:477, 01:198:206, or 01:960:381. Only one of 01:640:338 and 339 may count for credit toward any math major or minor option.

Introduction to the modeling process and survey of mathematical models from such areas as economics, sociology, psychology, and urban and policy science. Models dealing with energy use, air pollution, currency transfer, transportation, bargaining, voting, auctions, e-commerce, learning, and allocation of scarce resources. Models use graphs, signed graphs, Markov chains, n -person games, consensus functions, and differential equations.

01:640:348. CRYPTOGRAPHY (3)

Prerequisites: 01:640:250; one of 01:640:300, 356, or 477, or permission of department.

Applications of algebra and number theory to cryptography (encryption/decryption) and cryptanalysis (attacking encrypted messages). Topics include congruences, finite fields, finding large primes, pseudoprimes, and primality testing, as well as the Vigenere and Hill ciphers, the Data Encryption Standard, probabilistic, and trapdoor attacks on encrypted messages, and public key ciphers.

01:640:350. LINEAR ALGEBRA (3)

Prerequisites: CALC4, 01:640:250, and 300, or permission of department.

Continuation of 01:640:250. Abstract vector spaces and linear transformations, inner product spaces, diagonalization, and canonical forms. Possible additional topics: systems of ordinary differential equations and numerical techniques.

01:640:351-352. INTRODUCTION TO ABSTRACT ALGEBRA I,II (4,3)

Prerequisites: CALC3, 01:640:250, and 300, or permission of department.

Abstract algebraic systems, including groups, rings, fields, polynomials, and some Galois theory.

01:640:354. LINEAR OPTIMIZATION (3)

Prerequisite: 01:640:250. Credit not given for both this course and 01:640:453 or 01:711:453.

Linear programming problems, the simplex method, duality theory, sensitivity analysis, introduction to integer programming, the transportation problem, network flows, and other applications.

01:640:355. GAME THEORY (3)

Prerequisite: 01:640:354. Credit not given for both this course and 01:220:406.

Introduction to two-person and n -person game theory, with applications to economics, politics, strategic studies, and other areas. Pure and mixed strategies, the minimax theorem, cooperative and noncooperative games, and bargaining models.

01:640:356. THEORY OF NUMBERS (3)

Prerequisite: CALC3.

Properties of the natural numbers, congruences, diophantine equations, and elementary arithmetical functions.

01:640:357. TOPICS IN APPLIED ALGEBRA (3)

Prerequisites: CALC3 and 01:640:250.

Material relevant for various applications. Topics chosen from finite machines, languages, coding theory, Boolean algebras, graph theory, group-theoretic counting arguments, algebraic computational complexity.

01:640:361. SET THEORY (3)

Prerequisites: 01:640:300 and either 01:640:250 or CALC3, or permission of department.

Introduction to set theory. The set-theoretic foundations of mathematics, including the construction of the real number system, countable and uncountable sets, cardinal numbers, and ordinals, the axiom of choice.

01:640:373-374. NUMERICAL ANALYSIS I,II (3,3)

Prerequisites: CALC4 and familiarity with a computer language. Credit not given for both these courses and 01:198:323,324.

Analysis of numerical methods for the solution of linear and non-linear equations, approximation of functions, numerical differentiation and integration, and the numerical solution of initial and boundary value problems for ordinary differential equations.

01:640:393. HONORS MATHEMATICS FOR THE PHYSICAL SCIENCES II (4)

Prerequisites: 01:640:293, or 250 and 252, or permission of department.

Primarily for students majoring in the physical sciences or engineering. Credit not given for this course and 01:640:403, 421, and 423.

The important partial differential equations of mathematical physics and an introduction to the theory of functions of a complex variable.

01:640:395. STUDIES IN MATHEMATICS (3)

Topics vary from term to term. Details available at time of registration.

01:640:403. INTRODUCTORY THEORY OF FUNCTIONS OF A COMPLEX VARIABLE (3)

Prerequisite: CALC4.

First course in the theory of a complex variable. Cauchy's integral theorem and its applications. Taylor and Laurent expansions, singularities, conformal mapping.

01:640:411-412. MATHEMATICAL ANALYSIS I,II (3,3)

Prerequisites: Permission of department and instructor. For students preparing for graduate study in the mathematical sciences.

Rigorous analysis of the differential and integral calculus of one and several variables.

01:640:421. ADVANCED CALCULUS FOR ENGINEERING (3)

Primarily for mechanical engineering majors. Prerequisite: CALC4. Credit not given for both this course and 01:640:423.

Laplace transforms, numerical solution of ordinary differential equations, Fourier series, and separation of variables method applied to the linear partial differential equations of mathematical physics (heat, wave, and Laplace's equation).

01:640:423. ELEMENTARY PARTIAL DIFFERENTIAL EQUATIONS (3)

Prerequisite: CALC4. Credit not given for both this course and 01:640:421.

Linear partial differential equations of mathematical physics (heat, wave, and Laplace's equation), separation of variables, Fourier series.

01:640:424. STOCHASTIC MODELS IN OPERATIONS RESEARCH (3)

Prerequisites: CALC4 and 01:640:250 and 477.

Introduction to stochastic processes and their applications to problems in operations research: Poisson processes, birth-death processes, exponential models, continuous-time Markov chains, queuing theory, computer simulation of queuing models, and related topics in operations research.

01:640:426. TOPICS IN APPLIED MATHEMATICS (3)

Prerequisite: 01:640:421 or 423.

Topics selected from integral transforms, calculus of variations, integral equations, Green's functions; applications to mathematical physics.

01:640:428. GRAPH THEORY (3)

Prerequisites: CALC3 and 01:640:250.

Colorability, connectedness, tournaments, eulerian and hamiltonian paths, orientability, and other topics from the theory of finite linear graphs, with an emphasis on applications chosen from social, biological, computer science, and physical problems.

01:640:429. INDUSTRY-ORIENTED MATHEMATICS: CASE STUDIES (3)

Prerequisites: Announced each year (including one or more of the following: CALC4, 01:640:250, 373, 477, 481); proficiency in computer programming.

Introduces students to an actual industrial problem requiring mathematical techniques (including computer science and statistics) for its solution. Problem presented by an industry representative, who also discusses methodology; instructor covers relevant mathematical topics. Students expected to participate actively in discussion, research, bibliography search, and computer programming (if appropriate), and to prepare a detailed report describing the problem, approach, and conclusions.

01:640:432. INTRODUCTION TO DIFFERENTIAL GEOMETRY (3)

Prerequisite: 01:640:311.

Investigation of the properties of curves and surfaces using methods of analysis.

01:640:435. GEOMETRY (3)

Prerequisites: CALC3, 01:640:250, and 300, or permission of department.

Various geometries, including projective and non-Euclidean geometries, and geometric axiom systems.

01:640:436. HISTORY OF MATHEMATICS (3)

Prerequisites: 01:640:250, 251; recommended to be taken after Geometry (01:640:435).

Selected topics from the history of mathematics including number systems; Euclidean geometry; the development of algebra in India, Arabia, and the West; and calculus.

01:640:441-442. INTRODUCTORY TOPOLOGY I,II (3,3)

Prerequisites: CALC4 and either 01:640:300 or permission of department.

Math 441: Introduction to topology with emphasis on the foundations of analysis; Euclidean spaces, metric spaces, topological spaces, and their properties; applications to analysis. Math 442: Basic concepts of algebraic topology, including the fundamental group, plane curves, homotopy, and a brief introduction to homology.

01:640:451-452. ABSTRACT ALGEBRA I,II (3,3)

Prerequisites: Permission of department and instructor. For students preparing for graduate study in the mathematical sciences.

Rigorous study of abstract algebraic systems including groups, rings, and fields.

01:640:453. THEORY OF LINEAR OPTIMIZATION (3)

Prerequisite: 01:640:250. Credit not given for both this course and 01:640:354 or 01:711:453.

Emphasis on the theory of linear optimization. Topics include convex sets, polyhedra, Farkas lemma, canonical forms, simplex algorithm, duality theory, revised simplex method, primal-dual methods, complementary slackness theorem, maximal flows, transportation problems, 2-person game theory.

01:640:454. COMBINATORICS (3)

Prerequisites: CALC2 and 01:640:250.

Existence and enumeration of designs and patterns such as codes, graphs, and block designs, and extremal problems related to such objects. Emphasis on applications to computer, biological, physical, and social problems.

01:640:457-458. COMPUTATIONAL METHODS IN ABSTRACT ALGEBRA (1.5,1.5)

Pre- or corequisites: 01:640:351-352. No prior computing experience is assumed.

Computer techniques for the study of particular algebraic objects such as finite groups, finitely generated abelian groups, and vector spaces over finite fields. APL programming language used.

01:640:461. MATHEMATICAL LOGIC (3)

Prerequisite: CALC3 and either 01:640:300 or permission of department.

Intuitive and formal development of the sentential and predicate calculus. Special emphasis given to questions of consistency, completeness, and independence. Formal systems; incompleteness and undecidability; theorems of Gödel. Exploration of which properties of structures can be defined in the first-order language.

01:640:477. MATHEMATICAL THEORY OF PROBABILITY (3)

Prerequisite: CALC3. Credit not given for both this course and 01:198:206, 14:332:331, or 01:960:381.

Basic probability theory in both discrete and continuous sample spaces, combinations, random variables and their distribution functions, expectations, law of large numbers, central limit theorem.

01:640:478. PROBABILITY II (3)

Prerequisites: 01:640:250 and either 01:640:477 or both 01:640:251 and 01:960:381.

Sums of independent random variables, moments and moment-generating functions, characteristic functions, uniqueness and continuity theorems, law of large numbers, conditional expectations, Markov chains, random walks.

01:640:481. MATHEMATICAL THEORY OF STATISTICS (3)

Prerequisites: 01:640:250 and either 01:640:477 or both 01:640:251 and 01:960:381. Credit not given for both this course and 01:960:382.

Fundamental principles of mathematical statistics, sampling distributions, estimation, testing hypotheses, correlation analysis, regression, analysis of variance, nonparametric methods.

01:640:491,492. UNDERGRADUATE MATHEMATICS SEMINAR (1,1)

Reading, presentation, and discussion of mathematical topics.

01:640:493,494. INDIVIDUAL STUDY IN MATHEMATICS (1-3 BA,1-3 BA)

Prerequisite: Permission of department.

01:640:495. SELECTED TOPICS IN MATHEMATICS (3)

01:640:496. RESEARCH IN MATHEMATICS (3)

01:640:497,498. HONORS IN MATHEMATICS (3,3)

MEDICAL TECHNOLOGY 660

Douglass College

Adviser: Jacqueline D. Heads

Medical technology, also called clinical laboratory science, is a professional field for which the student prepares in chemistry, microbiology, hematology, and related disciplines. Certified medical technologists or clinical laboratory technicians may enter careers in teaching or may work in clinical laboratories, research institutions, and pharmaceutical firms. The program, which leads to a bachelor of science degree, includes a yearlong, full-time clinical internship that qualifies the student to take national certification exams. Internships are competitive; grade-point averages of 2.5 in the sciences and cumulatively are required to apply. Application is made during the fall term of the junior year.

Major Requirements

A major in medical technology consists of a total of 81.5 to 83.5 credits, distributed as follows:

1. English composition (3 credits)
2. Biological sciences (19 credits): 01:119:101-102; 01:447:390; 01:146:474, and a 4-credit elective above the 200 level (Genetics strongly recommended.)
3. Mathematics (8 credits): Minimum requirements are 01:640:115 and 135, or equivalent. Please note: a course in computing or statistics may be used as a substitute for 01:640:135 with prior approval. A two-term calculus sequence will meet the mathematics requirement.
4. Chemistry (19.5–21.5 credits): 01:160:161-162, 171, and 251; plus either Sequence 1: 01:160:307-308 and 311; or, with prior approval, Sequence 2: 01:160:209, 211, and 11:115:301, 313
5. 06:660:485-486 Clinical Practicum in Medical Technology (16,16)

Courses

06:660:485-486. CLINICAL PRACTICUM IN MEDICAL TECHNOLOGY (16,16)

Prerequisites: Permission of department and acceptance by an affiliated clinical program. Application to clinical program is made early in the preceding academic year.

Series of fieldwork experiences for the student of medical technology, in clinical settings. Topics include bacteriology, biochemistry, hematology, immunohematology, immunology, instrumentation, microscopy, mycology, parasitology, serology, and laboratory management.

MEDICINE AND DENTISTRY

(See also Health Professions in the Student Life and Services section of this catalog)

The Association of American Medical Colleges and the American Dental Association have set the following entrance requirements for their member medical and dental schools:

Subject	Credits
Biology	8
Chemistry: General Inorganic	8
Chemistry: Organic	8

English	6
Humanities	6
Physics	8

All four science areas should include a laboratory. In addition, some medical and dental schools may require knowledge of a foreign language, a year of college mathematics, and additional work in the sciences. There is, however, no prescribed premedical major. Applicants to medical and dental schools should have excellent records, especially in the sciences, as well as experience in a health care field. Also, all schools recognize the importance of well-developed communication skills and a strong background in the humanities and the social sciences. Students should contact the Rutgers Health Professions office at 732/932-5667. Douglass College students should contact the Douglass Health Professions office at 732/932-9197, ext. 15. Cook College students should contact Dean Joseph Ventola at 732/932-3000, ext. 512.

MEDIEVAL STUDIES 667

Faculty of Arts and Sciences

Web Site: <http://medieval-studies.rutgers.edu>

Program Director:

James Masschaele, *History; Ph.D., Toronto*

Program Faculty:

Peter Bathory, *Political Science; Ph.D., Harvard*

Rudolph Bell, *History; Ph.D., CUNY*

Christine Chism, *English; Ph.D., Duke*

Marlene Ciklamini, *German; Ph.D., Yale*

Joseph Consoli, *Alexander Library; Ph.D., Rutgers*

François Cornilliat, *French; Doctorat d'Etat, Paris*

Lowell Edmunds, *Classics; Ph.D., Harvard*

Floyd Grave, *Music; Ph.D., New York*

Conrado Guardiola, *Spanish and Portuguese; Doctor en Filosofia y Letras, Zaragoza (Spain)*

Archer St. Clair Harvey, *Art History; Ph.D., Princeton*

Samantha Kelly, *History; Ph.D., Northwestern*

Andrew Kirkman, *Music; Ph.D., Princeton*

Stacy Klein, *English; Ph.D., Ohio State*

Tia Kolbaba, *Religion; Ph.D., Toronto*

David Marsh, *Italian; Ph.D., Harvard*

Jacqueline Miller, *English; Ph.D., Johns Hopkins*

Karl Morrison, *History; Ph.D., Cornell*

Dámaris Otero-Torres, *Spanish and Portuguese; Ph.D., California (San Diego)*

Ana Pairet, *French; Ph.D., Pennsylvania*

Stephen Reinert, *History; Ph.D., California (Los Angeles)*

Larry Scanlon, *English; Ph.D., Johns Hopkins*

Mahlon Smith, *Religion; M.S.L., Pontifical Institute of Medieval Studies (Toronto)*

Mary Speer, *French; Ph.D., Princeton*

Floyd Sumner, *Music; Ph.D., Rutgers*

Sarolta Takacs, *Classics; Ph.D., California (Los Angeles)*

Erik Thuno, *Art History; Ph.D., Johns Hopkins*

Alessandro Vettori, *Italian; Ph.D., Yale*

Andrew Welsh, *English; Ph.D., Pittsburgh*

Laura White, *Italian; Dottore in Lettere, Trieste; Ph.D., California (Los Angeles)*

Major Requirements

The major in medieval studies requires 30 credits of course work, as follows:

1. 3 credits in medieval Latin or a medieval vernacular other than Middle English from the following:
01:350:411,412 Old English Language and Literature
01:420:415 Medieval French Literature
01:470:331 German Literature of the Middle Ages
01:470:341 German Civilization I: 5th through 15th Centuries

- 01:560:401,402 Italian Literature of the 13th and 14th Centuries
 01:560:415,416 Dante
 16:667:501 Medieval Latin
 01:940:415 Medieval Spanish Literature
2. 6 credits in introductory courses on medieval European civilization, currently offered as 01:667:281,282 Medieval Civilization.
 3. 3 credits in the seminar in medieval studies, currently offered as 01:667:481 Senior Seminar in Medieval Studies.
 4. 18 credits in six elective courses chosen from approved cognate courses on medieval Europe offered in affiliated departments. Of the six elective courses, at least four must be at the 300 level or above. No more than three elective courses may be from any one department.

Minor Requirements

The interdisciplinary minor in medieval studies consists of seven courses distributed as follows: (1) 01:510:209 or 01:667:281; (2) 01:510:211 or 01:667:282; (3) 01:667:481; (4) four courses selected from the list of approved courses for the minor. At least five of these courses must be taken outside the student's major. A minimum of three courses must be at the 300 level or above, and the minor must include at least two courses in each of two disciplines outside the student's major.

Approved Courses

Additional courses approved for satisfaction of major and minor requirements:

- 01:082:308 The Age of Giotto (3)
 01:082:312 Byzantine Art (3)
 01:082:316 Anglo-Saxon Art (3)
 01:082:318 Myth and Legend in Art (3)
 01:082:319 Celtic and Early Irish Art (3)
 01:082:320 Islamic Art and Architecture (3)
 01:082:347 Early Northern European Painting (3)
 01:082:373 Early Medieval Art (3)
 01:082:374 Romanesque and Gothic Art (3)
 01:082:384 Romanesque and Gothic Art and Architecture in Germany (3)
 01:082:397 Medieval Architecture (3)
 01:082:449 Early Christian Art (3)
 01:082:473 Illuminated Manuscripts (3)
 01:350:301 Literature of Medieval Courts (3)
 01:350:302 Medieval Literature of Dissent (3)
 01:350:321 Chaucer (3)
 01:350:381 Medieval and Early Modern Women Writers (3)
 01:350:389 Issues and Problems in Medieval Literature and Culture (3)
 01:350:411, 412 Old English Language and Literature (3,3)
 01:350:415 Medieval Romance (3)
 01:350:420 Seminar: Chaucer (3)
 01:350:422 Seminar: Topics in Medieval Literature and Culture (3)
 01:420:403 History of the French Language (3)
 01:420:415 Medieval French Literature (3)
 01:470:331 German Literature of the Middle Ages (3)
 01:470:341 German Civilization I: 5th through 15th Centuries (3)

- 01:508:302 The Classical Age of Islam (3)
 01:510:205 Byzantium: The Imperial Age (3)
 01:510:207 Byzantium: The Last Centuries (3)
 01:510:213 The Crusades (3)
 01:510:214 European Intellectual Tradition (3)
 01:510:307 The Roman World in Late Antiquity (3)
 01:510:309 A History of Western Morals (3)
 01:510:313 Renaissance in the Middle Ages (3)
 01:510:315 Reform and Dissent in the Middle Ages (3)
 01:510:329 Medieval Culture and Society (3)
 01:510:331 France 100–1000 (3)
 01:510:337 Medieval Kings and Queens (3)
 01:510:338 England in the Middle Ages (3)
 01:510:345 English Constitutional History to 1688 (3)
 01:510:441 The Social History of Medieval England (3)
 01:560:331,332 Dante in Translation (3,3)
 01:560:401,402 Italian Literature of the 13th and 14th Centuries (3,3)
 01:560:415,416 Dante (3,3)
 01:563:201 Jewish Society and Culture I (3)
 01:580:302 Medieval Latin (3)
 07:700:211 Music of the Middle Ages (3)
 01:730:304 The Origins of Medieval Philosophy (3)
 01:730:305 Philosophy in the High Middle Ages (3)
 01:730:306 Between Medieval and Modern Philosophy (3)
 01:730:374 Islamic Philosophy and Mysticism (3)
 01:840:312 Greek Christianity (3)
 01:840:313 Latin Christianity (3)
 01:940:405 Civilization of Spain (3)
 01:940:415 Medieval Spanish Literature (3)
 01:940:417 History of the Spanish Language (3)

Courses

01:667:281,282. MEDIEVAL CIVILIZATION (3,3)

Credit not given for these courses and 01:510:209, 211.

Intellectual, technological, artistic, and social developments as reflected in specific manifestations from each period. *First term:* from Justinian to the Crusades (400–1100), including *Beowulf*, Hagia Sophia, the *Song of Roland*, the manor. *Second term:* from Romanesque to Renaissance (1100–1450), including troubadour music, Chartres, the Black Death, Dante.

01:667:388. THE CULTURES OF THE MIDDLE AGES (3)

Credit not given for this course and 01:350:388 or 01:195:388.

A detailed survey of a particular medieval society, with special emphasis on the complex interactions between different ethnic and cultural traditions of the medieval world. Topics covered vary depending on the interests and expertise of the professor.

01:667:481. SENIOR SEMINAR IN MEDIEVAL STUDIES (3)

Interdisciplinary course taught by faculty drawn from the humanities and social science disciplines. Topics in medieval civilization vary from year to year. Research paper required, supervised by faculty in two disciplines.

MICROBIOLOGY

(See Cook College Section)

MIDDLE EASTERN STUDIES 685

Faculty of Arts and Sciences

Web Site: <http://mideast.rutgers.edu>

Center Director: Hooshang Amirahmadi

Vice Director for Undergraduate Studies: Paul Sprachman

Committee on Middle Eastern Studies:

Hooshang Amirahmadi, *Urban Planning and Policy Development*; Ph.D., Cornell
Myron Aronoff, *Political Science*; Ph.D., California (Los Angeles);
Ph.D., Manchester

Jack L. Cargill, *History*; Ph.D., California (Berkeley)

Indrani Chatterjee, *History*; Ph.D., London

Eric Davis, *Political Science*; Ph.D., Chicago

Elsayed A. Elsayed, *Industrial Engineering*; Ph.D., Windsor

Salah El-Shakhs, *Urban Planning and Policy Development*; Ph.D., Harvard

Lillian Farhat, *Africana Studies*; M.A., Rutgers

Peter Golden, *History (Newark)*; Ph.D., Columbia

James Turner Johnson, *Religion*; Ph.D., Princeton

Dina Le Gall, *History*; Ph.D., Princeton

Jawid Mojaddedi, *Religion*; Ph.D., Manchester

Stephen Reinert, *History*; Ph.D., California (Los Angeles)

Said Samatar, *History (Newark)*; Ph.D., Northwestern

Richard Serrano, *French*; Ph.D., California (Berkeley)

Paul Sprachman, *Middle Eastern Studies*; Ph.D., Chicago

Yael Zerubavel, *History and Center for the Study of Jewish Life*;
Ph.D., Pennsylvania

For information about the Center for Middle Eastern Studies, contact the Vice Director for Undergraduate Studies at Lucy Stone Hall B-316, Rutgers, The State University of New Jersey, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854, or by email at mideast@rci.rutgers.edu. Information also may be found at the center's web site. Rutgers faculty or students who want to be added to the center's electronic mailing list should email the director to request that their name be added to the list. The email address for the electronic mailing list is mideaststudies_stufac@email.rutgers.edu.

Major Requirements

The interdisciplinary major in Middle Eastern studies consists of 34 credits. A core curriculum of 22 credits that is composed of 16 credits in one of the Middle Eastern languages (Arabic, Hebrew, Persian, and Turkish) and 6 credits in the two core Middle Eastern studies courses, 01:685:350 Introduction to the Modern Middle East and 01:685:451 Critical Perspectives on the Middle East, is required. The remaining 12 elective credits are taken from other center courses, or from approved courses relevant to the Middle East offered in other departments. Approval of the latter courses is at the discretion of the vice director of undergraduate studies of the Center for Middle Eastern Studies. Language courses may not be taken to fulfill elective requirements. Students with prior knowledge of Middle Eastern languages must choose their courses for the language requirement in consultation with, and with the approval of, the vice director of undergraduate studies of the Center for Middle Eastern Studies. The major may include no more than 6 credits of independent study or internships or a combination of these. Students must complete all courses counting toward the major in Middle Eastern studies with a grade of C or better.

Minor Requirements

The interdisciplinary minor in Middle Eastern studies consists of 23 credits. A core curriculum of 14 credits that is composed of 8 credits in one of the Middle Eastern lan-

guages (Arabic, Hebrew, Persian, and Turkish) and 6 credits in the two core Middle Eastern studies courses, 01:685:350 Introduction to the Modern Middle East and 01:685:451 Critical Perspectives on the Middle East, is required. The remaining 9 elective credits are taken from other center courses, or from approved courses relevant to the Middle East offered in other departments. Approval of the latter courses is at the discretion of the vice director of undergraduate studies of the Center for Middle Eastern Studies. Language courses may not be taken to fulfill elective requirements. Students with prior knowledge of Middle Eastern languages must choose their courses for the language requirement in consultation with, and with the approval of, the vice director of undergraduate studies of the Center for Middle Eastern Studies. The minor may include no more than 6 credits of independent study or internships or a combination of these. Students must complete all courses counting toward the minor in Middle Eastern studies with a grade of C or better.

Program Courses

Since the Center for Middle Eastern Studies is interdisciplinary, it offers a combination of courses originating in Middle Eastern studies, and cross-listed courses anchored in other departments that are approved for the Middle Eastern studies major or minor. All cross-listed courses have counterparts offered by the Middle Eastern studies program, usually utilizing the same last three digits of the course number as the cross-listed course, with the Middle Eastern studies code designation 01:685:__. (For example, course 01:790:351 Contemporary Politics in the Middle East, a political science course, is offered simultaneously within Middle Eastern studies as course 01:685:351, with the same title.) Credit is not, however, given for both a Middle Eastern studies course (01:685:__) and its corresponding cross-listed course.

Summary descriptions of cross-listed courses may be found under the relevant originating department's subject code listing (e.g., for a description of 01:685:409 The Crusades and the Holy Land, consult the parallel course entry in the history program, which is 01:510:409).

Courses Originating in Middle Eastern Studies

01:685:103-104. ELEMENTARY PERSIAN (4,4)

Students with prior knowledge of Persian must take a placement test, given by the Middle Eastern studies program, to determine their level of language competence. Basic speaking and writing systems of Persian as employed in Iran, Afghanistan, Tajikistan, and other parts of Asia.

01:685:203,204. INTERMEDIATE PERSIAN (4,4)

Prerequisites: 01:685:103-104 or equivalent.

Intermediate Persian enables participants to read representative texts that require knowledge of 1,500–2,000 words and of the grammatical structures presented in elementary Persian. Participants acquire the skills needed to produce communicative Persian on the intermediate level.

01:685:303,304. ADVANCED PERSIAN (4,4)

Prerequisites: 01:685:203,204 or equivalent.

01:685:329. MEDIEVAL ARABIC RELIGIOUS TEXTS (3)

Prerequisites: 01:013:128 or 01:685:128, and 01:013:228 or 01:685:228, or placement test given by the Middle Eastern studies program. Credit not given for both this course and 01:840:329.

Reading and close analysis of selected medieval religious texts, including Qur'an, Qur'anic exegesis, hadith, fiqh, and philosophical treatises exploring relationships between reason and revelation.

01:685:330. MAJOR THEMES IN CONTEMPORARY IRANIAN CINEMA (3)
Examines major films from post-revolutionary Iranian cinema. Major themes: role of religion in film, art, feminism, children in adult roles, city versus rural and tribal spaces, gradual erosion of political and cultural restrictions.

01:685:331. IMPACTS OF MEDIA TECHNOLOGIES AND GLOBALIZATION ON THE MIDDLE EAST (3)

Examines how media, especially information technology, have changed societies in the modern Middle East. Tensions between traditional values and modernity as they manifest in the widespread application of computer technology. Challenges to authoritarian governments in the Middle East by the proliferation and democratization of public access to technology.

01:685:350. INTRODUCTION TO THE MODERN MIDDLE EAST (3)

Introduction to the languages and cultures of the Middle East and facilitation of cross-cultural communication and understanding between the people of the West and of the Middle East.

01:685:355. MUSLIMS AND ISLAMIC INSTITUTIONS IN AMERICA (3)

Credit not given for both this course and 01:014:355.

Explores the bonds of Muslim community, the meaning of Muslim American identity, how immigrant groups are assimilating into American society, and institutional frameworks being adopted for national integration.

01:685:437,438. TWENTIETH-CENTURY ARABIC LITERATURE (3,3)

Prerequisite: At least one course in literature (English or world) or one course in Middle Eastern studies. Credit not given for both these courses and 01:013:437,438 or 01:195:437,438.

Survey of representative works of Arabic literature in translation, including poetry, the novel, the short story, and plays. Emphasis on how new literary trends reflect sociocultural change in the Arab world, including debates over tradition, gender relations, and cultural pluralism.

01:685:451. CRITICAL PERSPECTIVES ON THE MIDDLE EAST (3)

Prerequisite: 01:685:350. Credit not given for both this course and 01:790:451.

Promotes critical thinking about the Middle East by analyzing how stereotypes and Western political thinking hinder intercultural understanding and encourages students to think more dynamically about the relationship between the United States and the third world.

01:685:455. CULTURE AND REVOLUTION IN THE MIDDLE EAST (3)

Credit not given for both this course and 01:790:455.

Middle Eastern culture and its relationships with revolutionary movements and radical Islam. Major perspectives on current discourses regarding revolution and Middle Eastern culture.

01:685:480,481. INTERNSHIP IN MIDDLE EASTERN STUDIES (3,3)

Prerequisite: Permission of program director.

Students work in outreach projects or with a designated agency concerned with Middle Eastern affairs; requires an appropriately designed academic project, resulting in a paper.

01:685:490. MODERN MIDDLE EASTERN LITERATURE IN TRANSLATION (3)

Credit not given for both this course and 01:195:490 or 01:563:480.

Modern literature in the Arabic, Hebrew, Persian, and Turkish traditions, with focuses on poetry, the short story, and the novel.

01:685:491-492. INDEPENDENT STUDY AND RESEARCH IN MIDDLE EASTERN STUDIES (3,3)

01:685:495-496. ADVANCED TOPICS IN MIDDLE EASTERN STUDIES (3,3)

Intensive study, in a discussion-oriented format, of a specifically defined subject of Middle Eastern studies. Subjects vary according to individual instructors; contact the center director for information.

Cross-Listed Middle Eastern Studies Courses

A. Languages and Literatures

- 01:013:127 (685:127) Elementary Arabic (4)
- 01:013:128 (685:128) Elementary Arabic (4)
- 01:013:227 (685:227) Intermediate Arabic (4)
- 01:013:228 (685:228) Intermediate Arabic (4)
- 01:013:327 (685:327) Advanced Arabic (3)
- 01:013:328 (685:328) Advanced Arabic (3)
- 01:014:223 (685:223) Independent Study
(in Arabic) I (1–4)
- 01:014:224 (685:234) Independent Study
(in Arabic) II (1–4)
- 01:195:393 (685:393) Israeli Theater and Film (3)
- 01:563:101 (685:101) Elementary Modern Hebrew I (4)
- 01:563:102 (685:102) Elementary Modern Hebrew II (4)
- 01:563:131 (685:131) Intermediate Modern Hebrew I (4)
- 01:563:132 (685:132) Intermediate Modern Hebrew II (4)
- 01:563:215 (685:215) Introduction to Hebrew Style and Literature I (3)
- 01:563:216 (685:216) Introduction to Hebrew Style and Literature II (3)
- 01:563:371 (685:371) Contemporary Hebrew Literature and Media (3)
- 01:563:372 (685:372) Introduction to Modern Hebrew Literature (3)
- 01:563:471 (685:471) Readings in Modern Hebrew Literature I (3)
- 01:563:472 (685:472) The Hebrew Novel (3)
- 01:563:481 (685:479) Agnon's Themes and Variations (3)
- 01:563:484 (685:484) Modern Israeli Literature (3)

B. History

- 01:506:363 (685:363) Imperialism (3) *
- 01:506:367 (685:367) Protest and Revolution (3) *
- 01:508:200 (685:200) Ancient Near East (3)
- 01:508:201 (685:201) Islamic Civilization (3)
- 01:508:210 (685:210) The Armenian Experience in World History (3)
- 01:508:300 (685:300) The Arab-Israeli Conflict (3)
- 01:508:301 (685:301) The Ottoman Empire (3)
- 01:508:302 (685:302) The Classical Age of Islam (3)
- 01:508:305 (685:305) The Modern Middle East (3)
- 01:508:307 (685:307) Women and Society in the Islamic Middle East (3)
- 01:508:316 (685:316) Israeli Women: Historical and Literary Perspectives (3)
- 01:510:205 (685:205) Byzantium: The Imperial Age (3)
- 01:510:207 (685:207) Byzantium: The Last Centuries (3)
- 01:510:382 (685:382) Genesis of Modern Greece, 1450–1830 (3)
- 01:510:386 (685:343) History of Zionism (3)
- 01:510:409 (685:409) The Crusades and the Holy Land (3)
- 01:563:375 (685:375) The Jewish Immigrant Experience (3)
- 01:685:213 The Crusades (3)
- 01:685:410 Medieval Turkey (3)

C. Art History

- 01:082:320 (685:320) Islamic Art and Architecture (3)

* With written permission of program director, at time of registration.

MILITARY EDUCATION, AIR FORCE

D. Political Science

- 01:685:457 Islamic Law and Jurisprudence (3)
- 01:790:317 (685:317) Globalization and the Non-Western World (3) *
- 01:790:351 (685:351) Contemporary Politics in the Middle East (3)
- 01:790:352 (685:352) Israeli Politics (3)
- 01:790:385 (685:385) Arab Politics and Society (3)
- 01:790:452 (685:452) Advanced Topics in Middle Eastern Politics (3)
- 16:790:539 (685:539) Politics of the Middle East (3)

E. Sociology

- 01:920:354 (685:354) Third-World Women (3) *

F. Geography, and Urban Planning and Development

- 01:450:341 (685:341) South Asia and the Middle East (3)
- 10:975:475 (685:475) World Cities (3) *
- 10:975:476 (685:476) Islamic Cities (3)
- 10:975:498 (685:498) Special Topics in Urban Studies (3) *

G. Religion and Philosophy

- 01:685:233 Islamic Scriptures (3)
- 01:730:374 (685:374) Islamic Philosophy and Mysticism (3)
- 01:840:312 (685:312) Greek Christianity (3)
- 01:840:325 (685:325) Prophet Muhammad (3)
- 01:840:326 (685:326) Islam (3)
- 01:840:356 (685:356) Islamic Mysticism (3)
- 01:840:482 (685:482) Seminar in Islamic Ethics (3)

H. Jewish Studies

- 01:563:310 (685:310) Israeli Culture (3)

The Ibn Khaldun Prize

This annually awarded prize honors an outstanding research paper or critical essay by a student majoring or minoring in the program. Faculty may nominate students by sending copies of outstanding papers to the director, who, on the advice of the center's executive committee, in April appoints a two-person reading committee. Results are announced in late April. A stipend is associated with the prize.

MILITARY EDUCATION, AIR FORCE 690

Department of Aerospace Studies, Office of the Executive Vice President for Academic Affairs

Department Chairperson: Colonel Thomas W. McCarthy

Professor:

Colonel Thomas W. McCarthy, B.A., *Capital*; M.A., *La Verne*

Assistant Professors:

Captain William J. Carter III, B.S., *Florida A&M*; M.S.A., *Central Michigan*

Captain Kevin J. DenBoer, B.S., *Embry-Riddle*; M.A., *Oklahoma*

Captain Michelle L. Goodlett, B.S., *Sacramento State*; M.B.A., *Webster*

Air Force Reserve Officer Training Corps

Air Force Reserve Officer Training Corps (AFROTC) is a voluntary program of military education and leadership development open to qualified male and female students

of all academic majors of the university. Upon completion of the AFROTC program and the attainment of a baccalaureate-level degree, the individual receives a commission as an officer in the U.S. Air Force. A monthly subsistence is provided during the junior and senior years. Scholarships are awarded on a competitive basis in increments of four, three, and two years.

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. Gregory Blimling, Vice President for Student Affairs (732/932-8576).

Program Requirements

Two formats for AFROTC program completion are available: a four-year candidate program and a two-year candidate program.

Four-Year Program. The first two years of the four-year candidate program are called the General Military Course (GMC) and are voluntary. The GMC is designed to acquaint the new college student with the Air Force.

Enrollment in the GMC does not place the student under any military service obligation. Requirements for the GMC include 03:690:121,122 and 221,222 scheduled for one hour per week over the first four terms. In addition, Leadership Laboratory (03:690:171,172 and 271,272) is scheduled each week. One academic credit is awarded for the classroom work in each term of the GMC.

Four-year candidates must attend a four-week field training encampment prior to their junior year.

During his or her sophomore year, the student may apply for entrance into the Professional Officer Course (POC). The POC is contractual and is scheduled during the junior and senior years. Obligations include enlisting in the Air Force Reserve, completion of degree requirements, and acceptance of a commission in the U.S. Air Force Reserve if tendered. Term requirements for the POC include attendance at Leadership Laboratory and class attendance. The POC courses are 03:690:323,324, 371,372, 423,424, and 471,472. Three academic credits are awarded for the classroom work in each term of the POC. Students who successfully complete the POC are commissioned as second lieutenants in the Air Force upon graduation and have an initial active duty obligation of four years. This active duty period is longer for pilots and navigators.

* With written permission of program director, at time of registration.

Two-Year Program. The two-year candidate program offers college sophomores, who have two full academic years remaining, an opportunity to catch up with their contemporaries and complete the AFROTC program. Two-year candidates attend six weeks of field training during the summer between their sophomore and junior years of college. The additional weeks for two-year program candidates provide the academic background normally given in the GMC.

Membership Qualifications

To qualify for membership in the Air Force ROTC program a student must be a citizen of the United States, at least 14 years of age, physically qualified, and enrolled as a full-time student. All Rutgers students are eligible to take AFROTC academic classes, even if they are not members of AFROTC.

Noncadet Enrollment

Rutgers students who desire a varied aerospace education without seeking a commission are encouraged to enroll in classes on a space-available basis for the purpose of *academic credit only*. These students are not required to attend traditional ROTC activities, including the leadership laboratory. For more information, call 732/932-7706, or send an email to rotc485@rci.rutgers.edu.

Uniforms and Allowances

Uniforms and textbooks are supplied to all students enrolled in AFROTC. A \$50 deposit fee is required for textbooks and uniforms. This fee is refunded when textbooks and uniforms are returned. Students enrolled in the POC and scholarship students receive a monthly graduated stipend ranging from \$250 to \$400, depending on their year in school.

Courses

03:690:121,122. THE FOUNDATIONS OF THE UNITED STATES AIR FORCE (1,1)

Introductory course acquainting students with the U.S. Air Force mission and organization. Assessment of writing and speaking skills.

03:690:171,172. LEADERSHIP LABORATORY I (0,0)

Corequisites: 03:690:121,122. Enrollment limited to Air Force ROTC cadets. Fundamentals of drill and ceremonies; physical fitness training; leadership exercises.

03:690:221,222. THE EVOLUTION OF AIR AND SPACE POWER (1,1)

Historical survey of changes in the nature of military conflict; development of air power from beginnings through the two world wars; evolution of air power doctrine; growth of air power technology; history of air power employment in military and nonmilitary operations. Assessment of writing and speaking skills.

03:690:271,272. LEADERSHIP LABORATORY II (0,0)

Corequisites: 03:690:221,222. Enrollment limited to Air Force ROTC cadets. Continuation of Leadership Laboratory I. Advanced drill and ceremonies; physical fitness training and evaluation; leadership exercises.

03:690:323,324. AIR FORCE LEADERSHIP STUDIES (3,3)

Integrated management course emphasizing individual's role as leader/manager. Motivation and behavior; leadership, communication, and group dynamics; basic managerial decision making and analytic aids; organizational and personal values; management of forces in change; organizational power and politics in the military. Actual Air Force cases; assessment of writing and speaking skills.

03:690:371,372. LEADERSHIP LABORATORY III (0,0)

Corequisites: 03:690:323,324. Enrollment limited to Air Force ROTC cadets. Advanced leadership experience in planning, organizing, directing, coordinating, and controlling.

03:690:423,424. NATIONAL SECURITY AFFAIRS (3,3)

Political science course integrated with studies of military profession. Approaches, processes, and actors of national security policy; evolution of U.S. national security policy; role of President, Congress, military; current issues of national strategy, focusing on regional security issues. Individual and group research and presentations required; writing and speaking skills assessed.

03:690:471,472. LEADERSHIP LABORATORY IV (0,0)

Corequisites: 03:690:423,424. Enrollment limited to Air Force ROTC cadets. Advanced leadership and management skills and their application.

MILITARY EDUCATION, ARMY 691

Department of Military Education (Army), Office of the Executive Vice President for Academic Affairs

Web Site: <http://www.armyrotc.rutgers.edu>

Email: atoebnjru@knox-rotc.army.mil

732/932-7313, ext. 10

Department Chairperson: Lieutenant Colonel Peter R. Sandberg

Professor:

Lieutenant Colonel Peter R. Sandberg, B.A., California Lutheran College; M.A., American Graduate School of International Management; M.S., Illinois (Urbana-Champaign); M.A.S., Air (Alabama)

Assistant Professors:

Captain Countess D. Irvin, B.A., Park

Captain Keith E. Mackey, B.S., Rutgers

Lieutenant Colonel Stephen C. Wren, B.S., Rutgers; M.B.A., Maryland

Army Reserve Officer Training Corps (ROTC)

Army ROTC is a leadership and management development program designed to commission officers in the U.S. Army. The program consists of 18 credits taken as general electives that can be combined with any academic major. Upon successful completion of the program, students will be commissioned as second lieutenants in the U.S. Army, the Army National Guard, or the Army Reserve. A monthly subsistence allowance is provided for juniors, seniors, and scholarship cadets. Several two- and three-year scholarships are awarded annually on a competitive basis. The mission of the Army ROTC is to develop the leadership potential of students and have fun in the process.

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. Gregory Blimling, Vice President for Student Affairs (732/932-8576).

Program Requirements

Two paths lead to commissioning: a two-year program and a four-year program. Additionally, students not seeking a commission may take the leadership development courses for academic credit only.

Four-Year Program. The first two years of the four-year program constitute the basic course and do not include an obligation to the Army. Successful completion of the basic course is required for contracting as a cadet in the junior year. Basic course classes meet once a week for one class period (1.5 credits). Attendance at the military leadership lab on alternate Friday mornings (two class periods) is required. The junior and senior years constitute the advanced course. These classes meet for three hours a week for 3 credits, and attendance at the labs is required.

Two-Year Program. The two-year program offers qualified students an alternate method of entry into the advanced course. Students taking this option attend five weeks of leadership and military skill training at Fort Knox, Kentucky, during the summer before entering the advanced course. The Army provides a stipend for attendance, and there is no obligation until the student decides to continue with Army ROTC in the junior year. *Prior service members* who have completed basic training successfully with any of the armed forces may also get commissioning credit for the basic course and use the two-year option. Members of the Army National Guard and Army Reserve also qualify for this option.

Noncadet Enrollment

Rutgers students who desire a varied education without seeking a commission are encouraged to enroll in classes for the purpose of *academic credit only*. These students are not required to attend additional ROTC activities, including the leadership laboratory. Call 732/932-7313, ext. 10, for details.

Enrollment Qualifications

To qualify for enrollment in the ROTC program for the purpose of commissioning, an individual must be enrolled as a full-time undergraduate or graduate student, a citizen of the United States between 17 and 27 years of age (inclusive), and physically qualified. Noncitizen students may be permitted to take ROTC when they fulfill certain requirements of military regulations.

Uniforms and Allowances

Uniforms and equipment are provided to all students enrolled in Army ROTC. They must be returned to the department each term or as directed by the cadre. As of fall 2004, students enrolled in the advanced course receive \$350 to \$400 as a monthly stipend while attending classes. (Army scholarship recipients receive the stipend and an additional \$500 for books per year.) New Jersey Army National Guard members who are also Army ROTC cadets may be eligible for additional benefits.

Summer and Winter Break Training Opportunities

Qualified cadets may compete for training opportunities at Airborne, Air Assault, Mountain Warfare, and Northern Warfare schools. There are opportunities for exchange programs with cadets in other countries. Juniors scheduled for advanced camp are eligible for follow-on training with Army units around the world.

Army ROTC Extracurricular Activities

There are many volunteer opportunities for Rutgers students, including Scabbard and Blade Honor Society, Queens Guard Drill Team, Tactics Club, Ranger Challenge Team, and various community service projects.

Distinguished Military Student/Distinguished Military Graduate

Distinguished Army ROTC students are so designated by the professor of military science on the basis of high scholarship, evidence of high moral character, military aptitude, and demonstrated leadership ability. Distinguished Military Graduates are those who rank in the top 20 percent of Army ROTC graduates nationwide.

Physical Training

Physical development is focused on the physically challenging requirements of being an Army officer. Students develop their ability to maintain personal fitness and build an appreciation for teamwork, inspire a will to win, and be successful. Physical fitness training is conducted three mornings a week and is open to all enrolled cadets.

Courses

03:691:101. FOUNDATIONS OF OFFICERSHIP (1.5)

Organization of U.S. Army and responsibilities of the Army officer. Physical fitness, values, ethics, military customs, and traditions.

03:691:102. BASIC LEADERSHIP (1.5)

Introduction to the leadership assessment process. Communications and methods of performance evaluation. Development of work schedules and the techniques of counseling.

03:691:103,104. MILITARY LEADERSHIP LABORATORY (0,0)

Lab. 1.5 hrs. Corequisites: 03:691:101, 102.

Practical exercises in leadership techniques.

03:691:201. INDIVIDUAL LEADERSHIP STUDIES (1.5)

Instruction and evaluation techniques in the critical areas of leadership. Analysis of communication ability, presentation skills, and procedures for delegating responsibility. Land navigation and principles of physical fitness.

03:691:202. LEADERSHIP AND TEAMWORK (1.5)

Analysis of the dimensions of leadership identified in 03:691:201 as applied in a group. Specific analysis of initiative judgment, sensitivity, communication skills, and planning and organizing abilities. Principles of time management and fundamentals of resource management.

03:691:203,204. MILITARY LEADERSHIP LABORATORY (0,0)

Lab. 1.5 hrs. Corequisites: 03:691:201, 202.

Practical exercises in leadership techniques.

03:691:391. MILITARY LEADERSHIP AND PROBLEM SOLVING (3)

Prerequisites: 03:691:101 and 201, or special permission.

Decision-making techniques, course of action development, study of historical examples, and practical exercises in deliberate and hasty decision making.

03:691:391,392. MILITARY LEADERSHIP AND ETHICS (3)

Prerequisites: 03:691:102 and 202, or by permission.

Case study of leadership traits and management principles. "Code of Conduct" and the military justice system. Principles of security and survival in a combat environment. Employment of tactical communications. Planning military operations.

03:691:393,394. MILITARY LEADERSHIP LABORATORY (0,0)

Lab. 1.5 hrs. Corequisites: 03:691:391,392.

Practical exercises in leadership techniques.

03:691:491. MILITARY LEADERSHIP AND MANAGEMENT (3)

Prerequisites: 03:691:391,392 or permission of instructor.

Organization of Army staffs, functional areas of responsibility, planning techniques, and problem solving. Military writing; formats for studies, reports, and routine correspondence. The army logistics system.

03:691:492. OFFICERSHIP (3)

Prerequisite: 03:691:491 or permission of instructor.

Problems and responsibilities of an Army officer; treatment of contemporary social problems in the military environment. Training management and methods of instruction. Military law and ethics.

03:691:493,494. MILITARY LEADERSHIP LABORATORY (0,0)

Lab. 1.5 hrs. Corequisites: 03:691:491, 492. Enrollment limited to and required of all Army ROTC cadets.

Practical exercises in leadership techniques.

MOLECULAR BIOLOGY

(See Life Sciences)

MUSIC (Music 700, Applied Music 701)

Department of Music, Mason Gross School of the Arts

The Department of Music is a member of the National Association of Schools of Music.

See the Mason Gross School of the Arts section for faculty listing, descriptions of all Applied Music 701 courses, and B.Mus. program information.

Major Requirements: B.A. Program

Prior to declaring the major in music, students must first complete both 07:700:122 and 124 with a grade of C+ or better. Written permission to enter the program also must be obtained from the Department of Music.

Music majors in the bachelor of arts program are required to complete at least 41 credits, distributed as follows:

1. 13 credits of music theory: 07:700:121, 122, 127, 221, 222
2. 8 credits of musicianship: 07:700:123-124, 223-224
3. 12 credits of music history: 07:700:301-302, either 303 or 304, and either 419 or 420

4. 4 terms of performance study (4 credits)

5. 4 terms of large ensemble (4 credits) *

All students must pass a piano proficiency examination no later than the spring term of the junior year. In order to graduate with a major in music, students must achieve a minimum grade-point average of 2.5 in courses required for the major.

Minor Requirements

Students may elect a minor program in music consisting of at least 18 credits, distributed as follows: (1) at least 6 credits in music theory (example: 07:700:103, 104); (2) at least 6 credits in music history (example: 07:700:101, 102); and (3) 6 elective credits in music, to be chosen in consultation with a faculty adviser.

Departmental Honors Program

The Department of Music offers an honors program to qualified students majoring in music. Before the end of the junior year, interested students who meet departmental requirements for honors candidacy should apply in writing to the Director of Undergraduate Studies for admission to the honors program. To complete the program successfully, the candidate must submit an honors paper prepared under the supervision of a member of the faculty (07:700:495 or 496 Senior Honors Tutorial) and maintain a cumulative grade-point average of 3.0 or better and a grade-point average in the major of 3.5 or better.

Courses for Nonmajors

The department offers a variety of courses for the non-major. In general, 07:700:101 and / or 103 provide the prerequisites for most other nonmajor courses in music. Some ensembles and other performance courses also are open to nonmajors. See the listing under Applied Music 701 in the Mason Gross School of the Arts section.

Courses (700)

Attendance at certain music events may be required in any of the following courses.

07:700:101. INTRODUCTION TO MUSIC (3)

For students with little or no background in music. Basic concepts for intelligent listening to all kinds of music. Emphasis on aspects of sonority, rhythm, melody, harmony, and structure.

07:700:102. INTRODUCTION TO MUSIC HISTORY (3)

Prerequisite: 07:700:101 or 103 or equivalent.

Introductory historical survey of styles, genres, forms, and composers in music from antiquity to the present.

07:700:103. INTRODUCTION TO MUSIC THEORY (3)

No previous musical experience required. Intended for nonmajors.

Rudiments of music: intervals, scales, key signatures, modes, chords, rhythm, and meter. Development of aural skills.

* The Department of Music may require any student taking a performance lesson to participate in an ensemble of the department's choice.

07:700:104. INTRODUCTION TO MUSIC ANALYSIS (3)

Prerequisite: 07:700:103 or equivalent. Intended for nonmajors.

Exploration of basic analytical techniques that reveal principles of musical structure; examples drawn from the medieval period through the 20th century; introduction to various types of music notation and score reading; further development of aural skills.

07:700:110. INTRODUCTION TO MUSIC EDUCATION (1)

For Mason Gross School of the Arts music education students only or by permission of instructor.

Overview of K–12 music programs and the music education profession.

07:700:121. THEORY I: COUNTERPOINT (3)

Prerequisite: Demonstrated understanding by entrance examination of rhythmic/pitch notation, intervals, scales, and key signatures. Corequisites: 07:700:123, 127.

Analysis and written exercises of melody and music in two voices within the historical context of the development of medieval and Renaissance music. Free counterpoint and imitation in a 16th-century style.

07:700:122. THEORY II: HARMONY I (3)

Prerequisite: 07:700:121.

Analysis and written exercises of music in three and four voices within the stylistic context of the late Renaissance and early baroque. First-species, three-voice counterpoint. Principles of figured bass; melodic embellishment and nonharmonic tones. Triads, seventh chords, and their inversions; secondary dominants.

07:700:123-124. FUNDAMENTALS OF MUSICIANSHIP I,II (2,2)

Pre- or corequisites: 07:700:121, 122 or permission of instructor. Intended for music majors.

Intensive work in sight-singing; dictation of melody, rhythm, and harmony; score reading; and keyboard harmony.

07:700:125. SURVEY OF JAZZ STYLES (2)

Corequisite: 07:700:121.

Historical and analytical survey of major jazz recordings from the 1920s to the present.

07:700:127. INTRODUCTION TO MUSIC TECHNOLOGY (1)

Corequisites: 07:700:121, 123.

Fundamental skills in music technology: computer-based notation, MIDI sequencing, and digital-audio techniques.

07:700:129. INTRODUCTION TO RECORDING TECHNOLOGY (1)

Prerequisite: 07:700:127 or permission of instructor. Ability to read music. Intended primarily for music majors.

Fundamental skills in recording technology: acoustics, microphones, audio consoles, and recording techniques.

07:700:173,174. STUDIES IN COMPOSITION I (BA,BA)

Prerequisite: Permission of instructor. Intended primarily for B.Mus. students and music majors in the B.A. program.

Independent study in musical composition.

07:700:203,204. MUSIC THEORY AND ANALYSIS (3,3)

Prerequisite: 07:700:104 or equivalent. Intended for nonmajors and music minors. Credit not given for these courses and 07:700:121, 122.

Analysis of works selected from various periods to demonstrate theoretical principles as derived from melodic, contrapuntal, harmonic, and rhythmic practices. Continued development of aural skills supplemented by written exercises.

07:700:210. FOUNDATIONS OF MUSIC EDUCATION (3)

For Mason Gross School of the Arts music education students only.

Introduction to the historical and philosophical background for school music in the United States. Discussion of current practices and teaching roles at all grade levels and subjects. Includes field experience.

07:700: 211,212. STUDIES IN MUSIC HISTORY (3,3)

Prerequisite: 07:700:101 or 103 or equivalent.

Musical styles and genres in different historical periods.

07:700:221. THEORY III: HARMONY II (3)

Prerequisites: 07:700:121, 122 or equivalent.

Harmonic practice of the late baroque and classic periods through analysis and composition. Modulation. Underlying melodic and harmonic structure. Harmonization of soprano lines.

07:700:222. THEORY IV: MUSIC ANALYSIS (3)

Prerequisite: 07:700:221.

Harmonic practice of the 19th and 20th centuries.

07:700:223-224. FUNDAMENTALS OF MUSICIANSHIP II (2,2)

Prerequisites: 07:700:123-124 or permission of instructor.

Continued work in sight-singing; dictation of melody, rhythm, and harmony; score reading; and keyboard harmony.

07:700:237,238. STUDIES IN MAJOR COMPOSERS I,II (3,3)

Prerequisite: 07:700:101 or 103 or equivalent.

Studies of selected compositions by a major composer. Specific composer varies from term to term. May be repeated for credit with differing course content.

07:700:247-248. JAZZ THEORY I,II (3,3)

Prerequisites: 07:700:122 and 124.

Rudiments of jazz improvisation and composition: Lydian chromatic scales, jazz modes, seventh chords, rhythm, intervallic retention, and meter; sight-reading and dictation in jazz idioms.

07:700:251-252. KEYBOARD HARMONY FOR JAZZ MAJORS (2,2)

Prerequisites: 07:700:123-124.

Study of basic piano voicings and harmonic sequences set to compositions.

07:700:261. VOCAL TECHNIQUE FOR SCHOOL CHOIRS (1)

Pre- or corequisite: 07:700:121 or examination. For Mason Gross School of the Arts music education students only.

Fundamentals of singing; methods for class vocal instruction for elementary and high schools.

07:700:263. SCHOOL MUSIC: STRING INSTRUMENT TECHNIQUES (1)

Pre- or corequisite: 07:700:121. For Mason Gross School of the Arts music education students only.

Fundamentals of playing and teaching the string instruments; survey of materials for use in the schools.

07:700:265. SCHOOL MUSIC: WOODWIND INSTRUMENT TECHNIQUES (1)

Pre- or corequisite: 07:700:121. For Mason Gross School of the Arts music education students only.

Fundamentals of playing and teaching the woodwind instruments of the orchestra and band.

07:700:267. SCHOOL MUSIC: BRASS INSTRUMENT TECHNIQUES (1)

Pre- or corequisite: 07:700:121. For Mason Gross School of the Arts music education students only.

Fundamentals of playing and teaching the brass instruments of the orchestra and band.

07:700:269. SCHOOL MUSIC: PERCUSSION INSTRUMENT TECHNIQUES (1)

Pre- or corequisite: 07:700:121. For Mason Gross School of the Arts music education students only.

Fundamentals of playing and teaching the percussion instruments of the orchestra and band.

07:700:273,274. STUDIES IN COMPOSITION II (BA,BA)

Prerequisite: Permission of instructor. Intended primarily for B.Mus. students and music majors in the B.A. program.

Independent study in musical composition.

07:700:283. COMPUTER APPLICATIONS IN MUSIC (3)

Preference given to music majors. Limited enrollment.

Introduction to the creative use of computers and synthesizers. Compositional and improvisatory techniques, including sequencing, editing, and sampling MIDI and notational software.

07:700:295,296. SPECIAL TOPICS IN MUSIC (3,3)

Studies in musical genres such as symphony, concerto, or choral music; repertoires (music and theater or music since 1945); or cultures (American music, African-American music, music and society, or women and music).

07:700:301-302. SURVEY OF MUSIC HISTORY (3,3)

Prerequisite: 07:700:122. *Intended primarily for music majors.*

Styles and forms of Western music from antiquity to the present.

07:700:303,304. SPECIAL TOPICS IN WORLD MUSIC (3,3)

Prerequisite: 07:700:122.

Selected topics on the musical cultures of the Pacific, Asia, Near East, and Africa; and the aboriginal music of the Americas.

07:700:305-306. EVOLUTION OF JAZZ (3,3)

Prerequisites: 07:700:122 and 124 or permission of instructor. *For Mason Gross School of the Arts jazz studies students only.*

History of jazz. *First term:* African and African-American origins to the 1930s; basics of improvisation; development of aural ability to distinguish forms and styles. *Second term:* Jazz of the 1940s to the present.

07:700:323. FUNDAMENTALS OF MUSICIANSHIP III (2)

Prerequisite: 07:700:224.

Advanced work in sight-singing; dictation of melody, rhythm, and harmony; score reading; and keyboard harmony.

07:700:329-330. INTRODUCTION TO CONDUCTING (2,2)

Prerequisite: 07:700:222.

Fundamentals of conducting and organization of school choruses and orchestras.

07:700:341. ORCHESTRATION I (2)

Prerequisite: 07:700:222. *Intended primarily for B.Mus. music education students.*

Study and demonstration of instruments of the orchestra; writing idiomatically for individual instruments; scoring for small ensembles.

07:700:342. ORCHESTRATION II (2)

Prerequisite: 07:700:341.

Study of selected scores; writing for various ensembles and for symphony orchestra.

07:700:347-348. JAZZ COMPOSITION AND ARRANGING (2,2)

Prerequisites: 07:700:247-248 and 251-252.

Fundamentals of jazz composition and arranging, beginning with arrangements for two or three winds and rhythm sections, and culminating in compositions and arrangements for large ensembles in early, modern, and popular jazz idioms.

07:700:371-372. JAZZ IMPROVISATION I (3,3)

Prerequisites: 07:700:247-248 and 251-252.

Jazz techniques involving chord nomenclature, melodic development, turnbacks, cycles, the blues, scale coloring, rhythmic patterns, and harmonic concepts.

07:700:373,374. COMPOSITION (BA,BA)

Pre- or corequisites: 07:700:222 and permission of instructor.

Independent work in contemporary techniques of composition.

07:700:381. MATERIALS AND METHODS IN ELEMENTARY SCHOOL MUSIC (3)

Prerequisite: 07:700:210 or permission of instructor.

A hands-on activity approach to classroom music programs. Conventional as well as Orff and Kodaly procedures. Fieldwork.

07:700:384. MATERIALS AND METHODS IN INSTRUMENTAL MUSIC EDUCATION (2)

Prerequisite: 07:700:210. *Intended for music education majors.*

Pedagogical techniques for instrumental music in K–12 curricula.

07:700:385. INSTRUMENTAL METHODS: CHORAL/GENERAL MAJORS (1)

Prerequisite: 07:700:210.

Pedagogical techniques for instrumental music in K–12 curricula.

07:700:386. MUSIC EDUCATION LABORATORY (1)

Prerequisite: 07:700:210.

Practical conducting and performance of repertoire for K–12 ensembles. Sections in choral and instrumental emphases offered in alternate years.

07:700:388. MATERIALS AND METHODS IN SECONDARY CHORAL/GENERAL/SCHOOL MUSIC (3)

Prerequisite: 07:700:210 or permission of instructor.

Topics include the boy's changing voice, high school choral classes, instrumental music programs, and implications of the revised copyright law.

07:700:419,420. SPECIAL STUDIES IN MUSIC HISTORY (3,3)

Prerequisites: 07:700:301-302. *Intended for music majors.*

Intensive study of a single topic from a variety of perspectives; reading, discussion, and oral and written reports.

07:700:429. INTERMEDIATE RECORDING TECHNOLOGY (3)

Prerequisite: 07:700:129 or permission of instructor. *Ability to read music. Intended primarily for music majors.*

Intermediate skills in recording technology: principles of digital audio, advanced signal processing, advanced audio console skills, and computer-based digital audio and editing.

07:700:467. SPECIAL TOPICS: JAZZ FOR MUSIC EDUCATORS (1)

Prerequisite: 07:700:210. *Intended for music education majors.*

Techniques, repertoire, and resources for teaching instrumental jazz in secondary schools.

07:700:469. TECHNIQUES OF ELECTROACOUSTICAL COMPOSITION (3)

Prerequisite: 07:700:222 or permission of instructor. *Preference given to music majors.*

Historical survey of electroacoustic music and analysis of selected works. Digital audio recording and editing, sound synthesis, and MIDI systems and sequencing.

07:700:470. ELECTROACOUSTICAL COMPOSITION (3)

Prerequisite: 07:700:469 or permission of instructor.

Sampling, integrated digital audio and MIDI systems, and advanced sound synthesis. Study of representative stylistic approaches and trends in electroacoustic music.

07:700:471-472. JAZZ IMPROVISATION II (3,3)

Prerequisites: 07:700:371-372.

Jazz techniques exploring forms in jazz from 1925 to the present; the study of cadences; the Lydian chromatic concept as applied to defining specific devices and as manifested in various compositions.

07:700:473. SPECIAL TOPICS: CREATIVITY IN THE MUSIC CLASSROOM (3)

Prerequisite: 07:700:210. *Intended for music education majors.*

Strategies and techniques for implementing creative activities in the K–12 music classroom.

07:700:474. SPECIAL TOPICS: TECHNOLOGY IN MUSIC EDUCATION (1)

Prerequisite: 07:700:210.

Music technology and its applications in music education.

07:700:475. SPECIAL TOPICS: MUSIC FOR EXCEPTIONAL LEARNERS (1)

Prerequisite: 07:700:210.

Practical adaptation of instruction to accommodate students with special needs.

07:700:476. SPECIAL TOPICS: MULTICULTURAL MUSIC EDUCATION (1)

Prerequisite: 07:700:210.

Resources and teaching strategies for world music in K–12 curricula.

07:700:477. SPECIAL TOPICS: STAGED CHORAL PRODUCTIONS (1)

Prerequisite: 07:700:210.

Techniques, literature, and resources for staging productions of musical theater, jazz, and show choir in the secondary school.

07:700:478. SPECIAL TOPICS: MARCHING BAND (1)

Prerequisite: 07:700:210.

Techniques of designing marching band routines.

07:700:479. SPECIAL TOPICS IN MUSIC EDUCATION (1)

Prerequisite: 07:700:210.

07:700:480. SEMINAR FOR STUDENT TEACHERS (1)

Corequisite: 07:700:487. Open only to students in a teacher education program who have been admitted formally to student teaching.

Examination of problems relevant to contemporary elementary and secondary music education. Concerns relevant to student teaching emphasized. Opportunity to address problems encountered while student teaching.

07:700:485. COMPUTER MUSIC (3)

Prerequisite: 07:700:469 or permission of instructor.

Historic survey of computer music and analysis of select works. Software synthesis principles and applications.

07:700:487. STUDENT TEACHING (11)

Corequisite: 07:700:480. Open only to students in a teacher education program who have been admitted formally to student teaching.

Full-time student teaching in approved schools under the supervision of members of the faculty.

07:700:493,494. INDEPENDENT STUDY (BA,BA)

Prerequisite: Permission of instructor.

Supervised research in music composition, education, history, or theory.

07:700:495,496. SENIOR HONORS TUTORIAL (3,3)

Prerequisite: Permission of department.

Independent research in music history, theory, or composition.

Applied Music (701): Ensembles and Performance

See the Course Listing chapter in the Mason Gross School of the Arts section for complete course listing.

NEUROBIOLOGY

(See Life Sciences)

NURSING

The College of Nursing in Newark awards a bachelor of science degree that also is offered on the New Brunswick/Piscataway campus. Specific information about the program and course offerings, admissions criteria, administrative procedures, and academic regulations of the school may be obtained from the College of Nursing office at 1 Richardson Street on the College Avenue campus.

NUTRITIONAL SCIENCES 709

(See Cook College section)

OPERATIONS RESEARCH 711

Faculty of Arts and Sciences

Web Site: <http://rutcor.rutgers.edu>

Program Director: Peter L. Hammer

Program Committee:

Adi Ben-Israel, *RUTCOR*, *MSIS*

Endre Boros, *RUTCOR*

Peter L. Hammer, *RUTCOR*

Andras Prekopa, *RUTCOR*

Michael Rothkopf, *RUTCOR*, *MSIS*

Operations research is an interdisciplinary science that uses mathematics, statistics, computer science, and economics to analyze and solve problems in business, industry, and government. Typical activities of operations research practitioners include the analysis of real-world problems and their formulation as mathematical models, the development of mathematical and statistical methodologies for the solution of such models, the development of computer algorithms and software for the determination of optimal solutions, and the implementation of theoretical solutions to handle real-world problems.

The minor in operations research is an interdisciplinary program aimed at introducing students to the basic methodologies and applications of operations research and preparing them for work on the practical, as well as the theoretical, aspects of the field.

Students interested in pursuing a minor in operations research must register early at the office of the program director. Registered students will be placed on a mailing list to receive announcements of course offerings and special events. Additional information can be found at the program's web site.

Minor Program

The interdisciplinary program in operations research consists of six courses comprised of four core courses and two electives.

The four core courses are:

- 01:640:424 Stochastic Models in Operations Research (3)
- 01:711:453 Theory of Linear Optimization (3) *or*
01:640:354 Linear Optimization (3)
- 01:711:465 Integer Programming (3)
- 01:711:481 Case Studies in Applied Operations Research (3)

Electives may be chosen from the following:

- 01:198:323 Numerical Analysis and Computing (4)
- 01:198:344 Design and Analysis of Computer Algorithms (4)
- 01:198:424 Modeling and Simulation of Continuous Systems (4)
- 01:198:425 Computer Methods and Statistics (4)
- 01:198:440 Introduction to Artificial Intelligence (4)
- 01:220:322 Econometrics (3)
- 01:220:326 Econometric Theory (3)
- 01:220:401 Advanced Econometrics (3)
- 01:220:405 Economics of Uncertainty (3)
- 01:220:409 Mathematical Economics (3)
- 01:220:410 Operations Research II (3)
- 01:220:415 Portfolio Theory (3)

- 01:220:419 Managerial Economics (3)
 01:220:421 Economic Forecasting (3)
 01:220:430 Topics in Advanced Economic Theory (3)
 01:220:436 Game Theory and Economics (3)
 14:540:311 Deterministic Models in Operations Research (3)
 14:540:338 Probabilistic Models in Operations Research (3)
 33:623:370 Management Information Systems (3)
 33:623:386 Operations Management (3)
 33:623:400 Advanced Operations Management (3)
 33:623:470 Advanced Management Information Systems (3)
 01:640:321 Introduction to Applied Mathematics (3)
 01:640:338 Discrete and Probabilistic Models in Biology (3)
 01:640:355 Game Theory (3)
 01:640:373 Numerical Analysis I (3)
 01:640:428 Graph Theory (3)
 01:640:454 Combinatorics (3)
 01:711:447 Discrete Mathematical Models and Optimization (3)
 01:960:337 Managerial Statistics (3)
 01:960:390 Introductory Computing for Statistics (1)
 01:960:467 Applied Multivariate Analysis (3)
 01:960:483 Statistical Quality Control (3)
 01:960:484 Basic Applied Statistics (3)
 01:960:491 Reliability-Quality Control (3)

The choice of alternate pertinent electives should be approved by the program director.

Courses

01:711:295. INTRODUCTORY TOPICS IN OPERATIONS RESEARCH (3)

01:711:447. DISCRETE MATHEMATICAL MODELS AND OPTIMIZATION (3)

Prerequisites: 01:640:135-136 or 151-152 or permission of instructor.

Basic concepts and tools of discrete mathematics for operations research, engineering, and the sciences. Major topics: graphs and algorithms, counting, Boolean functions, elements of discrete optimization.

01:711:453. THEORY OF LINEAR OPTIMIZATION (3)

Prerequisite: 01:640:250. Credit not given for both this course and 01:640:354 or 453.

Topics include convex sets, polyhedra, Farkas lemma, canonical forms, simplex algorithm, duality theory, revised simplex method, primal-dual methods, complementary slackness theorem, maximal flows, transportation problems, 2-person game theory.

01:711:465. INTEGER PROGRAMMING (3)

Prerequisites: 01:198:111; 01:640:354 or 01:711:453.

Discrete optimization models, linear programming relaxations of integer programs, structured integer problems, enumerative methods, cutting planes, preprocessing techniques, nonlinear binary optimization.

01:711:481. CASE STUDIES IN APPLIED OPERATIONS RESEARCH (3)

Prerequisites: 01:640:354 or 01:711:453; 01:640:424; 01:711:465.

Applications of operations research to real-life problems, typical operations research problems in business, industry, and government; model formulation and interpretation; determination of relevant parameters; formulation of mathematical programming models.

01:711:495. ADVANCED TOPICS IN OPERATIONS RESEARCH (3)

PHARMACY

Students who wish to earn a degree in pharmacy must be admitted to the Ernest Mario School of Pharmacy. See the Ernest Mario School of Pharmacy section for further information. Students enrolled at Douglass, Livingston, and Rutgers colleges may follow the preprofessional course work outlined at the web site <http://pharmacy.rutgers.edu> to prepare for a college-to-college transfer to the Ernest Mario School of Pharmacy. Interested students at these colleges should consult with the school's Office of Academic Services for additional information.

PHILOSOPHY 730

Department of Philosophy, Faculty of Arts and Sciences

Web Site: <http://philosophy.rutgers.edu>

Chairperson: Brian McLaughlin

Undergraduate Director: Tim Maudlin

Professors:

Martha Brandt Bolton, B.A., Ohio Wesleyan; Ph.D., Michigan
 Robert Bolton, A.B., Princeton; B.Lit., Oxford; Ph.D., Michigan
 Martin Bunzl, B.A., Ph.D., Minnesota
 Jerry A. Fodor, B.A., Columbia; Ph.D., Princeton
 Alvin I. Goldman, B.A., Columbia; Ph.D., Princeton
 John P. Hawthorne, B.A., Manchester; Ph.D., Syracuse
 Douglas Husak, B.A., Denison; M.A., Ph.D., J.D., Ohio State
 Peter Kivy, B.A., M.A., Michigan; M.A., Yale; Ph.D., Columbia
 Peter D. Klein, B.A., Earlham College; M.A., Ph.D., Yale
 Ernest Lepore, B.A., Massachusetts; M.A., Ph.D., Minnesota
 Brian Loar, B.A., Seton Hall; M.A., Toronto; B.Phil., D.Phil., Oxford
 Barry Loewer, B.A., Amherst; Ph.D., Stanford
 Robert Matthews, B.S., M.S., Cornell; M.A., Georgetown; Ph.D., Cornell
 Tim Maudlin, B.A., Yale; Ph.D., Pittsburgh
 Howard McGary, Jr., B.A., California (Los Angeles); Ph.D., Minnesota
 Colin McGinn, B.A., M.A., Manchester; D.Phil., Oxford
 Brian McLaughlin, B.A., Montclair State College; M.A., Ph.D., North Carolina
 Stephen Neale, B.A., London; Ph.D., Massachusetts Institute of Technology; Ph.D., Stanford
 Ted Sider, B.S., Gordon College; Ph.D., Massachusetts (Amherst)
 Stephen Stich, B.A., Pennsylvania; Ph.D., Princeton
 Larry S. Temkin, B.A., Wisconsin (Madison); Ph.D., Princeton
 Bruce W. Wilshire, B.A., Southern California; M.A., Ph.D., New York

Associate Professors:

Frank Arntzenius, B.S., The Netherlands; M.S., Ph.D., London
 Ruth Chang, A.B., Dartmouth; Ph.D., Oxford; J.D., Harvard
 Mary Frances Egan, B.A., Manitoba; Ph.D., Western Ontario
 Jason Stanley, B.A., SUNY (Stony Brook); Ph.D., Massachusetts Institute of Technology
 Dean Zimmerman, B.A., Mankato State; M.A., Ph.D., Brown

Visiting Professors:

Anne Ashbaugh, B.A., Alverno College; M.A., Louvain; M.A., Ph.D., Duquesne
 James Griffin, B.A., Yale; M.A., Ph.D., Oxford
 Derek Parfit, B.A., Oxford
 Pierre Pellegrin, Doctorat, Paris I
 Ernest Sosa, B.A., Miami; M.A., Ph.D., Pittsburgh

Major Requirements

Students must take a minimum of 11 classroom courses in philosophy, not more than five of which may be at the 100 to 200 level and receive a grade of C or better in each course. No more than one D can be applied toward the major. Among these courses must be the following:

- One term of logic from among the following:
 - 01:730:201 Introduction to Logic (3)
 - 01:730:315 Applied Symbolic Logic (3)
 - 01:730:407 Intermediate Logic I (3)
 - 01:730:408 Intermediate Logic II (3)

PHILOSOPHY

2. One term of ancient or medieval philosophy from among the following:
 - 01:190:322 Greek Political Philosophy (3)
 - 01:190:353 Aristotle (3)
 - 01:730:301 Socrates and Plato (3)
 - 01:730:302 Plato and Aristotle (3)
 - 01:730:304 The Origins of Medieval Philosophy (3)
 - 01:730:305 Philosophy in the High Middle Ages (3)
 - 01:730:306 Between Medieval and Modern Philosophy (3)
 - 01:730:352 Plato (3)
 - 01:730:401 Plato (3)
 - 01:730:402 Aristotle (3)
3. One term of modern philosophy from among the following:
 - 01:730:307 Descartes, Locke, and the 17th Century (3)
 - 01:730:308 Hume, Kant, and the 18th Century (3)
 - 01:730:404 Spinoza (3)
 - 01:730:405 Kant (3)
 - 01:730:406 Nineteenth-Century Philosophy (3)
4. One term of advanced ethics or political philosophy from among the following:
 - 01:730:330 The Ethics of War (3)
 - 01:730:340 History of Ethics (3)
 - 01:730:341 Ethics through History (3)
 - 01:730:342 Social and Political Philosophy through History (3)
 - 01:730:380 Ethics and Practical Reasoning (3)
 - 01:730:441 Ethical Theory (3)
 - 01:730:445 Social and Political Philosophy (3)
 - 01:730:450 Topics in Moral and Political Philosophy (3)
 - 01:730:459 Advanced Seminar in Ethics (3)
5. Two courses from among the following, at least one of which must be at the 400 level:
 - 01:730:210 Philosophy of Language (3)
 - 01:730:220 Introduction to the Theory of Knowledge (3)
 - 01:730:225 Introduction to the Philosophy of Science (3)
 - 01:730:328 Philosophy of Psychology (3)
 - 01:730:360 Philosophical Aspects of Cognitive Science (3)
 - 01:730:412 Epistemology (3)
 - 01:730:415 Metaphysics (3)
 - 01:730:418 Philosophy of Mind (3)
 - 01:730:419 Philosophy of Perception (3)
 - 01:730:420 Philosophy of Language (3)
 - 01:730:421 Semantics of Language (3)
 - 01:730:425 Philosophy of Science (3)
 - 01:730:426 Philosophy of Physics (3)
 - 01:730:427 Philosophy of Social Sciences (3)
 - 01:730:428 Topics in the Philosophy of Psychology (3)

A student may petition the department to substitute other courses for those on this list to satisfy any of the above requirements.

Minor Requirements

A minor in philosophy consists of six philosophy classroom courses of 3 or more credits each. At least three of the courses must be at the 300 or 400 level. Students must receive a grade of C or better in each course. No more than one D can be applied toward the minor.

Departmental Honors

The department offers students the opportunity to graduate in philosophy with departmental honors. The requirements to achieve this distinction are that, at graduation, a student have a major in philosophy with a cumulative grade-point average of 3.0 or higher and a grade-point average of 3.5 or higher in philosophy courses; that the student have grades of B+ or higher in at least four 400-level courses offered by the Department of Philosophy; and that the student have obtained final approval of a paper as an honors thesis by the undergraduate curriculum committee of the department. (The paper may have been submitted previously for a course. The committee may make its final approval conditional on additional work.)

Courses

Courses at the 300 and 400 levels are not open to first-year students, and courses at the 400 level are not open to sophomores. Any course prerequisite can be waived by permission of the instructor.

01:730:101. LOGIC, REASONING, AND PERSUASION (3)

Enrollment not open to students who have taken 01:730:201.

Development of skills in reasoning. Consideration of what an argument is, how arguments go wrong, what makes an argument valid. Application of techniques for clarifying meaning, evaluating, and constructing arguments.

01:730:103. INTRODUCTION TO PHILOSOPHY (3)

Examination of fundamental philosophical issues such as the meaning and basis of moral judgments, free will and determinism, theism and atheism, knowledge and skepticism, consciousness and the brain.

01:730:104. INTRODUCTION TO PHILOSOPHY (4)

Credit not given for both this course and 01:730:103.

Same as 01:730:103 with special emphasis on development of proficiency in writing.

01:730:105. CURRENT MORAL AND SOCIAL ISSUES (3)

Application of moral theory to selected contemporary issues. Possible topics include abortion, infanticide, euthanasia, punishment, equality, sexism, racism, affirmative action, privacy, obligations to the world's needy, treatment of animals, drug use, and the meaning of life.

01:730:106. CURRENT MORAL AND SOCIAL ISSUES (4)

Credit not given for both this course and 01:730:105.

Same as 01:730:105 with special emphasis on development of proficiency in writing.

01:730:107. INTRODUCTION TO ETHICS (3)

Exploration of basic issues in ethical theory and metaethics. Topics may include consequentialism, deontology, virtue theory, constructivism, value relativism, the objectivity of values, value skepticism, free will, and the nature of the values and practical reasons.

01:730:164. INTRODUCTION TO PHILOSOPHY THROUGH FILM (2)

This course is only taught in Winter Session.

Uses contemporary film as a stimulus for rigorously examining philosophical problems.

01:730:201. INTRODUCTION TO LOGIC (3)

Introduction to formal logic, covering truth functional propositional logic and quantification theory. Emphasis on developing symbolic techniques for representing and evaluating arguments.

01:730:205. INTRODUCTION TO MODERN PHILOSOPHY (3)

Study of the formative period of modern philosophy. Readings selected from works of Descartes, Leibniz, Spinoza, Hobbes, Locke, Berkeley, Hume, and Kant.

01:730:210. PHILOSOPHY OF LANGUAGE (3)

Prerequisite: 01:730:201.

Examination of central issues in the philosophy of language concerning questions of meaning and reference.

01:730:220. INTRODUCTION TO THE THEORY OF KNOWLEDGE (3)

Not open to students who have taken 01:730:412.

Evaluation of evidence, criteria for truth, the nature of belief, theories of perception.

01:730:225. INTRODUCTION TO THE PHILOSOPHY OF SCIENCE (3)

Not open to students who have taken 01:730:425.

Study of scientific methodology using examples from a variety of scientific disciplines. Nature of scientific laws and theories, explanation, confirmation, objectivity, changes in scientific knowledge.

01:730:249. MEDICAL ETHICS (3)

Moral problems in medical practice and research. Issues such as euthanasia, right to medical care, human experimentation, genetic engineering, rights of patients, nature of death, scarce medical resources.

01:730:250. ENVIRONMENTAL ETHICS (3)

Ethical matters concerning the environment; moral justification for coercing individuals and corporations, just distribution of resources, moral rights of nonhuman animals; study of topical issues such as clean air standards, population control, land use.

01:730:251. ETHICS AND BUSINESS (3)

Social and moral problems that arise in the context of business: profit motive, corporate social responsibility, use and abuse of corporate power, truth in advertising, consumer rights, strikes, stockholders' rights, preferential hiring.

01:730:252. LOVE, PERSONHOOD, AND SEXUAL MORALITY (3)

Nature and kinds of love; relationships between sex and love; respect for persons. Topics such as adultery, jealousy, sexual perversion, sexual exploitation, the rationale of moral restrictions of sex.

01:730:255. INTRODUCTION TO SOCIAL AND POLITICAL PHILOSOPHY (3)

Survey of philosophical writings on the origin and nature of the state. Topics include the individual and the state, the social order, nature and limitation of state authority, political obligation, liberties of citizens.

01:730:258. PHILOSOPHY AND THE BLACK EXPERIENCE (3)

Analysis of what constitutes the black experience and analysis of issues in the black experience, such as racial integration, racial separatism, racism, black values.

01:730:260. PHILOSOPHICAL IDEAS IN LITERATURE (3)

Philosophical issues in literary works. Topics such as freedom and determinism, conceptions and reality of the self, the quest for meaning, the existence of evil.

01:730:261. PHILOSOPHICAL IDEAS IN SCIENCE FICTION (3)

Philosophical issues in science fiction. Topics such as time travel, personal identity, mind-body problem, nonhuman rationality, parallel worlds.

01:730:263. PHILOSOPHY AND THE ARTS (3)

Introduction to the major issues in the philosophy of art, with emphasis on the implications of recent developments in film, music, and painting for art theory.

01:730:265. INTRODUCTION TO THE PHILOSOPHY OF RELIGION (3)

Basic issues in the philosophy of religion, East and West: existence and nature of God, problem of evil, faith versus knowledge, mysticism and its claims, the problem of religious language, attacks on religion by Hume, Nietzsche, Marx, and Freud.

01:730:268. INTRODUCTION TO EXISTENTIALISM (3)

Study of the works of some recent existentialist philosophers and the ways in which their analysis of human existence affects their views of freedom, choice, and action.

01:730:297. SOPHOMORE ADVANCED SEMINAR (3)

Prerequisites: Outstanding performance in at least one course in philosophy and permission of instructor.

Intensive study of some classic philosophical text (e.g., Kant's *Critique of Pure Reason*) or central philosophical question (e.g., the mind-body problem). Extensive writing of papers and discussion of reading material.

01:730:301. SOCRATES AND PLATO (3)

Prerequisite: One course in philosophy other than 01:730:101 or 102.

The thought of Socrates and Plato in the Platonic dialogues. The Socratic method; moral theory. Plato's early dialectic, theory of innate knowledge, theory of forms.

01:730:302. PLATO AND ARISTOTLE (3)

Prerequisite: One course in philosophy other than 01:730:101 or 102.

Major work of Plato, such as the *Republic*; Aristotle's critical reaction and alternative theories in metaphysics, psychology, logic, ethics, and politics.

01:730:304. THE ORIGINS OF MEDIEVAL PHILOSOPHY (3)

Prerequisite: One course in philosophy other than 01:730:101 or 102.

Emergence of a distinct medieval philosophical style (Philo of Alexandria); the Platonic legacy in Augustine and Boethius; the development of philosophical theology in Christianity, Islam, and Judaism.

01:730:305. PHILOSOPHY IN THE HIGH MIDDLE AGES (3)

Prerequisite: One course in philosophy.

Impact of Aristotle in the Muslim-Jewish world (Averroës and Maimonides); the development of medieval science; Christian Scholasticism (Thomas Aquinas and Duns Scotus).

01:730:306. BETWEEN MEDIEVAL AND MODERN PHILOSOPHY (3)

Prerequisite: One course in philosophy other than 01:730:101 or 102.

Critique of Aristotelian philosophy; the emergence of a new or "secular" Aristotle; the revival of Plato in the Italian Renaissance; the "new science" of Galileo.

01:730:307. DESCARTES, LOCKE, AND THE 17TH CENTURY (3)

Prerequisite: One course in philosophy.

Early development of modern views about the nature of the physical world; relation between the mental and the physical; the nature of one's self; skepticism and certainty. Readings from Descartes, Locke, and others, such as Spinoza, Leibniz, Hobbes.

01:730:308. HUME, KANT, AND THE 18TH CENTURY (3)

Prerequisite: One course in philosophy.

Some major works of Hume and Kant with some attention to other 18th-century philosophers. Comparison of views on the structure of consciousness, space and time, the limits of knowledge, the foundations of natural sciences, mathematics, and metaphysics.

01:730:310. CONTEMPORARY MOVEMENTS IN PHILOSOPHY (3)

Prerequisite: One course in philosophy.

Major movements in 20th-century philosophy, such as American pragmatism, development of logic, logical positivism, existentialism, phenomenology. Philosophers such as Peirce, James, Frege, Russell, Carnap, Wittgenstein, Sartre, Heidegger, Husserl.

PHILOSOPHY

01:730:311. CLASSICAL JEWISH PHILOSOPHY (3)

Credit not given for both this course and 01:563:311.

Major trends and figures in medieval Jewish thought; Jewish Platonism (Solomon ibn Gabirol); Jewish Aristotelianism (Maimonides); the critique of philosophy (Hallevi); Jewish philosophy in the Renaissance.

01:730:312. MODERN JEWISH PHILOSOPHY (3)

Credit not given for both this course and 01:563:312.

Thinkers and systems in modern Jewish philosophy, including interpretations of Jewish tradition, Jewish Kantianism (Cohen, Buber), Jewish existentialism and postmodernism (Rosenzweig, Levinas), the Holocaust, and Jewish feminism.

01:730:315. APPLIED SYMBOLIC LOGIC (3)

Prerequisite: 01:730:201.

Use of deduction techniques (see 01:730:201) to formalize various subject matters such as modal logic, set theory, formal arithmetic, and relevance logic.

01:730:328. PHILOSOPHY OF PSYCHOLOGY (3)

Prerequisite: One course in psychology or philosophy.

Conceptual and methodological issues about information, mental illness, innate structure, developmental stages, rationality, deviance. Behaviorism, reductionism, cognitivism, and structuralism.

01:730:329. MINDS, MACHINES, AND PERSONS (3)

Prerequisite: One course in philosophy.

Comparison of the nature of the human mind and that of complex machines. Consequences for questions about the personhood of robots.

01:730:330. THE ETHICS OF WAR (3)

Prerequisites: Two courses in philosophy other than 01:730:101.

Recommendation: 01:730:103, 104 or 105, 106.

A brief survey of the relevant historically significant views toward war including, but not limited to pacifism, just war theory, terrorism, and realism.

01:730:340. HISTORY OF ETHICS (3)

Work of great philosophers such as Plato, Aristotle, Hume, Kant, Mill. Topics such as nature and moral judgment, justification of moral standards, the good life and its relation to doing what is right.

01:730:341. ETHICS THROUGH HISTORY (3)

Prerequisite: One course in philosophy.

An examination of some of the most important moral theories in the history of philosophy. Possible authors include Plato, Aristotle, Butler, Hume, Kant, Mill, and Nietzsche. Some contemporary philosophers may be discussed as well.

01:730:342. SOCIAL AND POLITICAL PHILOSOPHY THROUGH HISTORY (3)

Prerequisite: One course in philosophy or psychology.

An examination of some of the most important social and political theories in the history of philosophy. Possible authors include Plato, Aristotle, Hobbes, Locke, Rousseau, Kant, Mill, and Marx. Some contemporary philosophers may be discussed as well, including Rawls and Nozick.

01:730:343. MARX AND MARXISM (3)

Central introduction to Marx's thought. Topics such as materialism; dialectics; analysis of capitalism; class and class struggle; social revolution, political program for socialism.

01:730:345. PHILOSOPHY AND THE LAW (3)

Examination of normative problems in law. Topics such as justification of punishment; limits of the law; nature of excuses; negligence; strict liability; *mens rea* requirement.

01:730:347. PHILOSOPHICAL ISSUES IN FEMINISM (3)

Prerequisite: One course in philosophy other than 01:730:101 or one course in women's studies.

Clarification and analysis of feminist thought. Critical study of scientific theories of sex differences. Issues such as the family, abortion, nature of persons, prostitution, discrimination, pornography.

01:730:352. PLATO (3)

Credit not given for both this course and 01:190:352 or 01:490:352.

Prerequisites: 01:730:208 and one other course in philosophy.

Philosophy of Plato through close readings of selected dialogues supplemented by relevant readings in other ancient and contemporary philosophers.

01:730:358. PHILOSOPHY OF LAW (3)

Examination of the nature and purpose of law and legal systems; analysis of judicial decision making and the role of discretion.

01:730:360. PHILOSOPHICAL ASPECTS OF COGNITIVE SCIENCE (3)

Exploration of ways in which research and discoveries in cognitive science influence, and have been influenced by, philosophical theorizing. Topics include consciousness, innate knowledge, mental representation, and the nature of rationality.

01:730:363. PHILOSOPHY OF CRITICISM: ART AND LITERATURE (3)

Nature of art criticism and its place in the art world. Concepts of reason, taste, interpretation, and appreciation.

01:730:364. AESTHETICS OF FILM (3)

Problems in the philosophy of art raised in theory and practice of film. Variety of films screened in conjunction with the course.

01:730:365. PHILOSOPHY OF MUSIC (3)

Concept of musical expression; music as language; music and drama; music and representation; the nature of the musical work.

01:730:367. AMERICAN PHILOSOPHY (3)

Prerequisite: One course in philosophy other than 01:730:101 or 102.

Study in its historical setting of inquiry into the nature of experience, truth, goodness, and society by American philosophers including James, Peirce, Dewey, Royce, Lewis, Whitehead.

01:730:368. HINDU PHILOSOPHY (3)

Credit not given for both this course and 01:840:358.

Upanishads, Patanjali, Bhagavad Gita; theories of matter, energy, states of consciousness; meditation. Yogas of knowledge, action, devotion. Karma. Ethics. Comparison of Hindu and Western cosmology.

01:730:369. BUDDHIST PHILOSOPHY (3)

Prerequisites: Two courses in philosophy other than logic. Recommended: 01:730:265 or 368.

Interdependence, impermanence, relativity; suffering; path to liberation; meditation; karma as cosmic justice; death and rebirth. Compassion as central ethical value. Theravada, Mahayana, and Tibetan Buddhism.

01:730:370. CONTEMPORARY PHILOSOPHY OF RELIGION (3)

Prerequisite: One course in philosophy other than logic.

Modern philosophical discussions of religious language and experience; the possibility of religious knowledge; the nature of religious discourse; mysticism and truth; divine omniscience; religious morality.

01:730:371. PHILOSOPHIES OF DEATH AND DYING (3)

Prerequisite: One course in philosophy other than logic. Sophomores by permission only.

Theories of death and dying in different metaphysical systems; Plato; Eastern philosophy; existentialism; thanatology. Extinction versus continuity of consciousness. Attitudes toward death and ethical values.

01:730:374. ISLAMIC PHILOSOPHY AND MYSTICISM (3)

Credit not given for both this course and 01:840:374 and 01:685:374.

Basic characteristics and tenets of Islam as religion: the early theological controversies, the major thinkers and mystics; their interaction with the other aspects of Islamic civilization.

01:730:380. ETHICS AND PRACTICAL REASONING (3)

Prerequisite: One course in philosophy.

Investigation of selected topics concerning practical reason and practical reasoning. Possible topics include the nature of reasons, normatively, irrationality, the role of will in action and intention, biases or "errors" in reasoning, moral dilemmas, and problems raised by intransitivity and incommensurability of values.

01:730:393,394. INDEPENDENT STUDY (1-4,1-4)

Individual study in some philosophical topic under the direction of a member of the department.

01:730:401. PLATO (3)

Prerequisite: 01:730:203 or 301 or 302.

Intensive study of selected works of Plato, with emphasis upon the later dialogues such as *Theaetetus*, *Sophist*, and *Philebus*.

01:730:402. ARISTOTLE (3)

Prerequisite: 01:730:203 or 301 or 302.

Topics in Aristotle's logic, physics, metaphysics, and philosophy of language.

01:730:403. ANCIENT PHILOSOPHY AFTER ARISTOTLE (3)

Prerequisite: One course in Greek philosophy.

Philosophy in the Hellenistic and Roman world. Stoics, Sceptics, and Epicureans; Hellenistic-Jewish philosophy; the revival of Aristotle; Plotinus, and the neo-Platonic tradition.

01:730:404. SPINOZA (3)

Prerequisites: Two courses in philosophy. Recommended: 01:730:205 or 307.

Spinoza's theological political treatise: prophecy, miracles; faith and reason. Spinoza's *Ethics*: God and his attributes, the human mind; human bondage and freedom.

01:730:405. KANT (3)

Prerequisites: Two courses in philosophy, including one of the following: 01:730:205, 307, 308, 412, or 415.

Critical examination of Kant's *Critique of Pure Reason*; emphasis on metaphysical and epistemological views.

01:730:406. NINETEENTH-CENTURY PHILOSOPHY (3)

Prerequisites: Two courses in philosophy.

Critical reaction to Kant and the philosophy of the Enlightenment: Fichte, Hegel. Rise of the social sciences. Antecedents of 20th-century intellectual movements.

01:730:407. INTERMEDIATE LOGIC I (3)

Prerequisite: 01:198:205 or 01:730:201 or 315.

Metatheory of propositional and first-order predicate logic. Completeness is proved and its consequences are explored.

01:730:408. INTERMEDIATE LOGIC II (3)

Prerequisite: 01:730:407.

Computability and recursiveness; metatheory of first-order theories; incompleteness theorems; special topics as time permits.

01:730:409. WITTGENSTEIN (3)

Prerequisites: One course in philosophy and 01:730:101.

Detailed study of either *Tractatus Logico-Philosophicus* and its relation to writings of Frege and Russell; or *Philosophical Investigations* and related writings.

01:730:411. HISTORY OF EPISTEMOLOGY (3)

Prerequisites: Two courses in philosophy other than 01:730:101 or 102.

Historical development of positions on one or more epistemological issues, such as sensory knowledge, necessary truths, first-person authority, other minds, skepticism, and scientific method.

01:730:412. EPISTEMOLOGY (3)

Prerequisites: Logic (01:730:201 or higher) and one course in philosophy other than 01:730:101 or 102.

Topics such as belief, certainty, justification, knowledge, and skepticism. Detailed examination of epistemological writings of traditional and contemporary authors.

01:730:414. HISTORY OF METAPHYSICS (3)

Prerequisites: Two courses in philosophy other than 01:730:101.

Historical development of positions on one or more metaphysical issues, such as substance, change, causality, universals, matter, space, time, free will, necessity, possibility, contingency.

01:730:415. METAPHYSICS (3)

Prerequisites: 01:730:201 and one course in philosophy.

Topics such as essence, particulars and universals, causation, space, time, identity. The nature of metaphysical arguments and problems of ontology. Realism and its alternatives.

01:730:418. PHILOSOPHY OF MIND (3)

Prerequisites: Two courses in philosophy.

Mind-body problem, the nature of consciousness; rationality; intentionality; human freedom. Theories of dualism, physicalism, functionalism, and behaviorism.

01:730:419. PHILOSOPHY OF PERCEPTION (3)

Prerequisites: Three courses in philosophy.

Philosophical study of perception and of our access through it to knowledge and reality.

01:730:420. PHILOSOPHY OF LANGUAGE (3)

Prerequisites: Logic and two courses in philosophy.

Philosophical study of language and linguistics. Pragmatics, theories of learnability, meaning and reference, formal semantics, truth, indexicality.

01:730:421. SEMANTICS OF LANGUAGE (3)

Prerequisite: 01:730:201.

The philosophical study of natural language semantics. Covers traditional questions about the semantics of names, predicates, adverbs, psychological ascriptions, and demonstrative and indexical expressions. Verbs of change. Comparative adjectives.

01:730:422. PHILOSOPHY OF LOGIC (3)

Prerequisite: 01:730:315.

Is logic a theory? The status and use of alternative logics. What logics and other mathematical systems can tell us about language and relations among language, belief, and the world.

01:730:424. THE LOGIC OF DECISION (3)

Prerequisite: One course in logic.

Analysis of rational preference and nondeductive inference with special emphasis on the examination of alternative concepts of utility and probability.

01:730:425. PHILOSOPHY OF SCIENCE (3)

Prerequisites: Logic, one course in science, and one course in philosophy.

Recommended: 01:730:225.

Detailed study of one or more of the following topics: explanation, confirmation, causation, the status of theoretical entities, objectivity, reductionism, unity of science.

01:730:426. PHILOSOPHY OF PHYSICS (3)

Prerequisite: One course in physics or one course in philosophy.

Recommended: 01:730:225.

Methodology of the physical sciences. Philosophical problems of space and time, measurement, and causation in modern physics.

01:730:427. PHILOSOPHY OF SOCIAL SCIENCES (3)

Prerequisite: One course in a social science.

Explanation. Relation to natural sciences. Discussion of debates in areas such as structuralism, functionalism, classical modeling, path analysis, statistical testing, and construct validation.

01:730:428. TOPICS IN THE PHILOSOPHY OF PSYCHOLOGY (3)

Prerequisites: One course in psychology and one course in philosophy.

Recommended: 01:730:225.

Detailed philosophical study of topics such as psychological explanation, implications of psychotherapy and theories of cognition, perception, learning, and personality.

01:730:435. PHILOSOPHY OF HISTORY (3)

Prerequisites: One course in history and one course in philosophy.

Theories of history and historical explanation; comparison of the methodologies of history and sciences; problems of historical interpretation.

01:730:441. ETHICAL THEORY (3)

Prerequisites: Two courses in philosophy.

Examination of leading contemporary views in normative ethics and metaethics. Possible topics include the nature of reasons and value, the justification of moral judgments, the meaning of moral terms, theories of right action, and competing approaches to moral theory, including skepticism.

01:730:445. TOPICS IN SOCIAL AND POLITICAL PHILOSOPHY (3)

Prerequisites: Two courses in philosophy other than 01:730:101.

Exploration of important authors or topics in social and political philosophy. Material may range from classical masterpieces to unpublished manuscripts.

01:730:450. TOPICS IN MORAL AND POLITICAL PHILOSOPHY (3)

Prerequisites: Two courses in philosophy other than 01:730:101 or 102.

Explores at an advanced level some of the most important authors or topics in moral philosophy. Material may range from classical masterpieces to unpublished manuscripts. Topics will vary by instructor.

01:730:459. ADVANCED SEMINAR IN ETHICS (3)

Prerequisite: Permission of instructor required.

Examines some of the deepest and most fundamental issues in moral theory and practical reasoning. Topics may include nature of morality, nature of reasons, impartiality, universal laws, Kantianism, consequentialism, contractualism, normativity, attitudes to time, obligations to future generations, the structure of moral ideals, competing conceptions of good, and transitivity.

01:730:461. TOPICS IN AESTHETICS (3)

Prerequisite: One course in philosophy.

Concepts of place and time in literature and the status of imaginary objects and fictional characters. The relevance of truth and morality to literature.

01:730:465. PHENOMENOLOGY AND EXISTENTIALISM (3)

Prerequisite: 01:730:268 or one other course in philosophy.

Issues in phenomenology and existentialism, selected from Kierkegaard, Nietzsche, Husserl, Heidegger, Sartre, and Merleau-Ponty. Consideration of contemporary philosophical literature.

01:730:480. ISSUES IN CONTEMPORARY PHILOSOPHY (3)

Prerequisites: Two courses in philosophy at the 300 or 400 level.

Examination of some central issue(s) in contemporary philosophy. Topics vary from term to term.

01:730:493,494. INDEPENDENT STUDY (1-4,1-4)

Individual study in some philosophical topic under the direction of a member of the department.

01:730:495-496. HONORS IN PHILOSOPHY (BA,BA)

Prerequisite: Permission of chairperson.

Individual conferences with adviser. Independent study of a book selected by the student from a list of works announced by the department.

PHYSICS 750 (Includes Astronomy)

Department of Physics and Astronomy, Faculty of Arts and Sciences

Web Site: <http://www.physics.rutgers.edu/home.html>

Chairperson: Charles Glashausser

Undergraduate Program Director: Mohan Kalelkar

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 Eva Y. Andrei, B.S., M.S., Tel Aviv; Ph.D., Rutgers
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 Robert Bartynski, B.A., Cornell; Ph.D., Pennsylvania
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 Ph.D., Institute of Radio Engineering and Electronics, Russian Academy of Sciences (Moscow)
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 Gerard Goldin, B.A., Harvard; M.A., Ph.D., Princeton
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 Lev Ioffe, M.S., Moscow Physical Technical Institute; Ph.D., Landau Institute for Theoretical Physics
 Mohan S. Kalelkar, B.A., Harvard; M.A., Ph.D., Columbia
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 Haruo Kojima, B.S., M.S., Ph.D., California (Los Angeles)
 Noemie B. Koller, A.B., A.M., Ph.D., Columbia
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 Theodore H. Kruse (Emeritus), A.B., Ph.D., Columbia
 David C. Langreth, B.S., Yale; M.S., Ph.D., Illinois
 Paul L. Leath, B.S., M.S., Ph.D., Missouri
 Joel Lebowitz, B.S., M.S., Ph.D., Syracuse
 Peter Lindenfeld (Emeritus), B.A.S., M.A.S., British Columbia; Ph.D., Columbia
 Claud W. Lovelace, B.S., Capetown (South Africa)
 Theodore Madey, B.S., Loyola College; Ph.D., Notre Dame
 Aram Mekjian, B.S., California Institute of Technology; Ph.D., Maryland
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 Joel A. Shapiro, B.S., Brown; Ph.D., Cornell
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 Gordon B. Thomson, B.S., Illinois Institute of Technology; Ph.D., Harvard
 David Vanderbilt, B.A., Swarthmore College; Ph.D., Massachusetts Institute of Technology
 Alan Van Heuvelen, B.S., Rutgers; Ph.D., Colorado
 Terence Watts, B.S., London; Ph.D., Yale
 Theodore B. Williams, B.S., Purdue; Ph.D., California Institute of Technology
 Larry Zamick, B.A., Manitoba; Ph.D., Massachusetts Institute of Technology
 Alexander Zamolodchikov, B.S., Moscow College for Physics and Technology; Ph.D., Institute of Theoretical and Experimental Physics (Moscow); Doctorate of Science
 Harold S. Zapolsky, B.A., Shimer College; Ph.D., Cornell

Associate Professors:

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 Laura Ferrarese, *Laurea degree, Padova (Italy)*; Ph.D., *Johns Hopkins*
 John Hughes, A.B., Ph.D., *Columbia*
 Terry A. Matilsky, B.S., *Michigan*; M.A., Ph.D., *Princeton*
 Anirvan Sengupta, B.A., *Calcutta (India)*; Ph.D., *Bombay (India)*
 Sunil V. Somalwar, M.Sc., *Indian Institute of Technology*; Ph.D., *Chicago*
 Frank Zimmermann, M.S., Ph.D., *Cornell*

Assistant Professors:

Douglas Bergman, A.B., *Chicago*; M.S., Ph.D., *Yale*
 Duiliu-Emanuel Diaconescu, B.Sc., *Iasi (Romania)*; Ph.D., *Rutgers*
 Charles Keeton, B.A., *Cornell*; Ph.D., *Harvard*
 Valery Kiryukhin, M.S., *Moscow Institute of Physics and Technology*; Ph.D., *Princeton*
 Arthur Kosowsky, B.A., *Washington (St. Louis)*; Ph.D., *Chicago*
 Amitabh Lath, B.S., Ph.D., *Massachusetts Institute of Technology*
 Sergei Lukyanov, M.A., *Moscow Engineering Physical Institute*; Ph.D., *Landau Institute for Theoretical Physics*
 Emil Yuzbashyan, M.S., *Moscow Institute of Physics and Technology*; Ph.D., *Princeton*

Associate Research Professor:

Charles Joseph, B.S., *Michigan State*; M.S., Ph.D., *Colorado*

Introductory Courses

The department offers several general introductory sequences, as well as some nontechnical courses listed in the following section. Courses 01:750:271-272, 273 Honors Physics with 275-276 Classical Physics Laboratory are for honors students and well-prepared physics majors. It uses calculus as a pre- or corequisite. Courses 01:750:123-124, 227-228 Analytical Physics with 229-230 Analytical Physics Laboratory are for engineering students and physics majors. It uses calculus as a pre- or corequisite. Engineering students who need extra help or who have nontraditional backgrounds should ask the engineering dean's office for permission to take 01:750:115-116 Extended Analytical Physics instead of 01:750:123-124. There are three introductory sequences for majors in the biological sciences (including premedical curricula), computer science, chemistry, and other sciences, as well as for students who desire an elementary but thorough introduction to physics. All three cover basically the same material, but utilize different teaching techniques and require different levels of mathematical preparation. Courses 01:750:203-204 General Physics with 205-206 General Physics Laboratory require calculus as a pre- or corequisite, and use a lecture/recitation format. Courses 01:750:201-202 Extended General Physics are intended for students who need extra help or who have nontraditional backgrounds. Recitations are replaced by cooperative learning workshops, and a laboratory is integrated into the course. Courses 01:750:193-194 Physics for the Sciences use only algebra and trigonometry. Recitations are replaced by cooperative learning workshops, and a laboratory is integrated into the course. Course 01:750:161 Elements of Physics is a one-term noncalculus course intended primarily for pharmacy students, but also suitable for well-prepared liberal arts majors. Courses that are suitable for nonscientists, requiring only high-school algebra, include 01:750:109, 110 Astronomy and Cosmology, 01:750:140 The Greenhouse Effect, and 01:750:296 Great Ideas That Shook Physics and the World.

Students who are unsure which sequence to take are urged to consult an adviser in the physics department. Credit cannot be given for courses taken in different sequences if they cover substantially similar topics. Students who wish to switch from one sequence to another are urged

to consult a departmental adviser; students who change their major or who have advanced standing also are urged to consult a departmental adviser.

Courses without Prerequisites

These courses have no prerequisites in physics or mathematics: 01:750:109, 110, 140, and 296. Most are relatively nonmathematical. Physics 01:750:109 and 110 are descriptive courses designed for nonscientists, requiring only minimal high school mathematics. Either may be taken without taking the other. Physics 01:750:140 is concerned with the scientific aspects of global warming. It is intended for liberal arts majors and is closed to natural science majors. Physics 01:750:296 discusses fundamental concepts of physics from a historical, sociological, and religious point of view.

Major Requirements

The department offers a major in physics and a major in astrophysics. Requirements for the latter are described under the "Astrophysics" subject heading in this catalog. For the major in physics there are three options available. In all physics major options, at least 15 credits of physics courses at the 300 level or higher that are applied toward the major must be completed at Rutgers–New Brunswick/Piscataway.

The professional option is a thorough introduction to the subject for all those who expect to make physics an important component of their career. It may lead to careers in research, technical development, or education in physics, or related fields. It provides suitable preparation for graduate study in physics.

The applied option is intended for students who wish to work in industry without graduate study. The required courses give a breadth of knowledge in technical fields rather than specialized preparation for graduate school.

The general option is for students who have an interest in physics but do not expect to become physicists or to do graduate work in physics. It is suitable preparation for careers in education, medicine, law, and business, and is particularly appropriate in an interdisciplinary course of study. A well-balanced sequence of courses should be chosen in consultation with an adviser in the department.

In addition, the department offers a five-year program in cooperation with the School of Engineering, leading to a degree in engineering and a degree in physics.

Prospective majors should consult an adviser in the physics department before choosing their courses.

Professional Option (Bachelor of Science)

Required courses and suggested curricula for honors students and other well-prepared students:

First year: 01:640:151-152; 01:750:271-272, 275-276.

Second year: 01:640:244, 251; 01:750:273, 326, 327, 351, 381-382.

Third year: 01:640:421 or 423; 01:750:361, 385-386, 387-388; 01:750:368 is recommended.

Fourth year: At least two courses out of 01:750:305, 406, 417, 418, 441, 442, 443, 444, 451, 464. At least one of these two courses must be 305, 406, or 418.

An alternate curriculum is available for students who did not begin with the honors physics sequence:

PHYSICS

First year: 01:640:151-152; 01:750:123-124.

Second year: 01:640:244, 251; 01:750:227, 228, 229-230, 381-382.

Third year: 01:640:421 or 423; 01:750:326, 327, 351, 361, 385-386; 01:750:368 is recommended.

Fourth year: 01:750:387-388, and at least two courses out of 01:750:305, 406, 417, 418, 441, 442, 443, 444, 451, 464. At least one of these two courses must be 305, 406, or 418.

Students who took 01:750:203-204 (or 201-202) as their introductory physics sequence should consult a departmental adviser to plan an appropriate curriculum for the professional physics major.

Applied Option (Bachelor of Science)

First year: 01:640:CALC1-CALC2; 01:750:203-204 (or equivalent); 205-206 (or 229-230 or 275-276).

Second year: 01:160:159-160, 171; 01:640:CALC3; 01:750:323-324, 326, 327.

Third year: 01:198:111 or 14:440:127; 01:640:CALC4; 01:750:305, 313, 351, 389; 9 credits in natural science electives chosen in consultation with a departmental adviser to form a coherent concentration in a physics-related applied area.

A grade-point average of at least a C in the courses applied toward the major is required for graduation in the applied option.

General Option (Bachelor of Arts)

Introductory courses: 01:750:203-204 (or equivalent) and laboratory 205-206 (or 229-230 or 275-276). Two terms of any calculus sequence.

Advanced courses: Six advanced physics courses, including 01:750:323-324, 326, 327, and two additional 300- or 400-level physics courses (except 490 level). It is recommended, but not required, that the two additional courses be selected from the following: 01:750:301, 305, 313, 341, 342, or 397.

Electives: 18 additional credits with grades of C or better in science or mathematics, chosen in consultation with a departmental adviser to form a coherent sequence.

At least a C average in the physics and mathematics courses is required for admission, retention, and graduation in the general option. Four of the six advanced physics courses must be taken at Rutgers–New Brunswick / Piscataway.

Minor Requirements

The department offers two minors—one in physics and one in astronomy.

The following courses are required for the physics minor:

01:750:203-204 (or equivalent)

01:750:205-206 (or 229-230 or 275-276)

Twelve credits of any 300- or 400-level physics courses (excluding 490 level). Recommended courses include 01:750:301, 305, 313, 323-324, 341, 342, 397.

The grade-point average for all courses applied toward the minor must be at least 2.0. No more than one D may be applied toward the minor. Three of the four advanced physics elective courses must be taken at Rutgers–New Brunswick / Piscataway.

The following courses are required for the astronomy minor:

01:750:203-204 (or equivalent)

01:750:205-206 (or 229-230 or 275-276)

01:750:341, 342, 343, 344

The grade-point average for all courses applied toward the minor must be at least 2.0. No more than one D may be applied toward the minor. Three of the four 300-level courses must be taken at Rutgers–New Brunswick / Piscataway. Physics majors or minors who also wish to minor in astronomy must complete 01:750:341, 342, 343, and 344. These courses also may not be used to satisfy requirements for the major or minor in physics.

Five-Year Dual Engineering and Physics Degrees

This is a dual-degree program, providing a B.A. or B.S. in physics and a B.S. in an engineering major.

In addition to the courses taken in one of the four-year engineering programs, the following courses are required for the B.A. in physics: 01:750:361, 385-386, either 305 or 351, one advanced laboratory (343 or 387 or 389), and any three additional 300- or 400-level physics courses, excluding the 490 level. Students who desire a B.S. in physics should consult a departmental adviser.

The student also must satisfy the graduation (or distribution) requirement of the multipurpose college (Douglass, Livingston, Rutgers) with which he or she chooses to affiliate. All courses used for the B.A. degree also may be used for the engineering B.S. degree, where appropriate, without taking replacement credits.

Departmental Honors Program

The chairperson of the department will invite physics majors who have shown considerable ability by the end of their junior year to participate in the departmental honors program. Candidates for honors either (1) take 01:750:495 and 496, and write an essay or conduct a seminar on a project undertaken in the senior year, or (2) take two terms of graduate courses normally included in the Ph.D. program. They also take advanced courses in addition to the required courses of the physics curriculum. Honors are awarded on the basis of the excellence of the honors project (if applicable), general performance in physics courses, and recommendations of the faculty.

More information about the undergraduate program is available at the department's web site.

Courses

01:750:109,110. ASTRONOMY AND COSMOLOGY (3,3)

For nonscience majors. No prerequisite. May not be taken for major credit.

Courses are independent and may be taken in either order or concurrently.

Predominantly descriptive introduction to current ideas concerning the nature and origin of the earth, the solar system, the galaxy, and the universe; neutron stars and black holes; the "big-bang"; the possibility of life outside the earth. 109: Development of our understanding of the solar system from the time of the Greeks to the present day. 110: Current understanding of stars, galaxies, and the universe.

01:750:115-116. EXTENDED ANALYTICAL PHYSICS I (3,3)

Lec. 2 hrs., workshop 3 hrs. Corequisites: 01:640:112 or 115 (first term), 01:640:CALC1 (second term). Sequence 01:750:115-116 is equivalent to 01:750:123-124, if both 01:750:115 and 116 are taken. Intended for engineering students who need extra help in preparing for 01:750:227, 228.

Together with 01:750:227, 228 forms a thorough introductory sequence. *First term:* graphs, orders of magnitude, units, dimensions, errors and precision, review of mathematics useful to physics, kinematics, vectors, force, and Newton's laws. *Second term:* energy, momentum, rotational motion, oscillations, liquids, and thermal physics, including the laws of thermodynamics and the kinetic theory of gases.

01:750:123-124. ANALYTICAL PHYSICS I (2,2)

Lec. 1 hr., rec. 1 hr. Corequisites: 01:640:151-152. Primarily for engineering and physics majors. This course should be followed by 01:750:227, 228 (or 204 if changing major).

Forms a thorough introductory sequence together with 01:750:227, 228. Kinematics, dynamics, energy, momentum, angular momentum, heat, and kinetic theory.

01:750:140. THE GREENHOUSE EFFECT (3)

For nonscience majors; may not be taken for major credit in science and engineering. Credit not given for both this course and 01:160:140, 01:450:140, or 01:556:140.

Physical and chemical bases of the "greenhouse effect" and its global impact: biological, climatic, economic, and political. Reducing the emission of "greenhouse" gases; nuclear energy, and other alternative energy sources.

01:750:161. ELEMENTS OF PHYSICS (4)

Lec. 3 hrs., workshop/lab. 3 hrs. Prerequisite: 01:640:112 or 115. Primarily for pharmacy students, but suitable for well-prepared liberal arts majors.

Survey of major topics in physics, such as motion, fluids, waves, electricity, electrical circuits, radioactivity, relativity, and atomic structure, with emphasis on developing laboratory and problem-solving skills.

01:750:171,172,173,174. TOPICS IN PHYSICS (1.5,1.5,1.5,1.5)

No prerequisite. Each course lasts one-half term. Graded on a pass/fail basis.

Physical concepts of the subject without emphasis on the mathematical details. New topics chosen from time to time. Examples: recent discoveries in astronomy and astrophysics; radioactivity; symmetry principles and elementary particle physics; relativity and space travel; waves and the basic concepts of quantum mechanics; science fiction, fact, and physics; power for the future; the physics of music; cameras and lenses; the physics of high-fidelity audio systems; semiconductors and transistors.

01:750:181,182,183,184. PHYSICS HONORS SEMINAR (3,3,3,3)

Prerequisite: Enrollment in an honors program or permission of department.

Physical principles and their implications, including interdisciplinary and societal issues. Topics vary by term. Extensive writing required.

01:750:193-194. PHYSICS FOR THE SCIENCES (4,4)

Lec. 2 hrs., workshop 1.5 hrs., lab. 3 hrs. Prerequisite: 01:640:112 or 115 or equivalent.

Introduction to physics with biological, ecological, and chemical applications. Selected topics in mechanics, thermodynamics, fluids, waves, electricity, magnetism, optics, and modern physics. Integrated laboratory experiments.

01:750:201-202. EXTENDED GENERAL PHYSICS (5,5)

Lec. 2 hrs., workshop 1.5 hrs., lab. 3 hrs. Corequisites: 01:640:112 or 115 (first term), 01:640:CALC1 (second term), or permission of instructor. Sequence 01:750:201-202 is an integrated program equivalent to 01:750:203-204 and 205-206. Intended for science, science teaching, and pre-health profession majors with a nontraditional background or who would benefit from additional support.

Elementary but detailed analysis of fundamental topics. *First term:* review of mathematical skills useful for physics, vectors, kinematics, Newton's laws including gravitation, conservation laws, fluids, thermal physics. *Second term:* electricity and magnetism, geometrical and wave optics, relativity and modern physics.

01:750:203-204. GENERAL PHYSICS (3,3)

Lec. 2 hrs., rec. 1 hr. Corequisites: 01:750:205-206 and any calculus course. Primarily for students in scientific curricula other than physics.

Elementary but detailed analysis of fundamental topics; motion, gravitation, momentum, energy, electromagnetism, waves, heat, kinetic theory, quantum effects, atomic and nuclear structures.

01:750:205-206. GENERAL PHYSICS LABORATORY (1,1)

Corequisites: 01:750:203-204.

Laboratory to complement 01:750:203-204.

01:750:227. ANALYTICAL PHYSICS IIA (3)

Prerequisites: 01:750:123-124 or 271. Corequisite: 01:750:229. Primarily for engineering and physics majors.

Electrostatics, particles in electric and magnetic fields, electromagnetism, circuits, Maxwell's equations, electromagnetic radiation.

01:750:228. ANALYTICAL PHYSICS IIB (3)

Prerequisite: 01:750:227 or 204 or 272. Corequisite: 01:750:230. Primarily for engineering and physics majors.

Waves and optics, relativity, quantum properties of electrons and photons, wave mechanics, atomic, solid state, nuclear, and elementary particle physics.

01:750:229-230. ANALYTICAL PHYSICS II LABORATORY (1,1)

Corequisites: 01:750:227 and 228.

Laboratory to complement 01:750:227 and 228.

01:750:271-272. HONORS PHYSICS I,II (3,3)

Prerequisite: Enrollment in an honors program or permission of department. Corequisites: 01:640:CALC1 (for 271); 01:640:CALC2 (for 272).

Introduction to classical physics, covering mechanics, fluids, thermodynamics, waves, electricity, magnetism, and optics.

01:750:273. HONORS PHYSICS III (3)

Prerequisites: 01:750:272 or permission of department and 01:640:CALC2.

Relativity, wave and quantum properties of photons and electrons; the structure of atoms, molecules, and solids; nuclear physics; elementary particles.

01:750:275,276. CLASSICAL PHYSICS LABORATORY (1,1)

Prerequisite: Enrollment in an honors program or permission of department.

For physics majors and honors students.

Experiments in classical physics.

01:750:296. GREAT IDEAS THAT SHOOK PHYSICS AND THE WORLD (3)

Not for major credit.

Major physical discoveries in their scientific, social, and historical contexts. Topics include the discovery of the law of universal gravitation, the wave compared with corpuscular view of light, electromagnetic induction, the Second Law of Thermodynamics and the arrow of time, light as an electromagnetic wave, Röntgen's discovery of X rays, quantum physics, the principle of relativity, and the discovery of antimatter.

01:750:301. PHYSICS OF SOUND (3)

Prerequisites: Two terms of introductory physics and two terms of calculus. Primarily for science majors.

Scientific basis of sound: waves, vibrating systems, normal modes, Fourier analysis and synthesis, perception and measurement of sound, noise, musical instruments, room acoustics, sound recording and reproduction, electronic synthesizers, and digital sound.

01:750:305. MODERN OPTICS (3)

Prerequisites: 01:640:CALC3; 01:750:227, 228 or 272, 273 or permission of instructor.

Geometrical optics; electromagnetic waves, the wave equation; superposition, interference, diffraction, polarization, and coherence; holography; multilayer films, Fresnel equations; blackbody radiation, Einstein coefficients, lasers; waveguides and fiber optics; and optical properties of materials.

PHYSICS

01:750:313. MODERN PHYSICS (3)

Prerequisites: 01:640:CALC2; 01:750:204 or 228.

Relativistic mechanics, wave and quantum properties of photons and electrons, Schrödinger equation and its application to the structure of atoms, molecules, and solids; nuclear physics; elementary particles.

01:750:323-324. ADVANCED GENERAL PHYSICS (3,3)

Prerequisites: 01:750:203-204 or permission of instructor; two terms of calculus.

For students in the general physics program and others who wish a course beyond elementary physics. Self-paced course in which the students work independently under the guidance of the instructor. The student should normally be free to participate in at least two of the scheduled periods. Material chosen from mechanics, electromagnetism, thermodynamics, optics, quantum mechanics, relativity, atomic and nuclear physics.

01:750:326. COMPUTER-BASED EXPERIMENTATION AND PHYSICS COMPUTING (4)

Prerequisites: 01:750:203-204, 205-206, or equivalent.

Experiments in mechanics, electromagnetism, and modern physics, emphasizing error analysis. Uses the computer as a laboratory tool for symbolic manipulation, data collection, data analysis, simulation, and report writing.

01:750:327. MODERN INSTRUMENTATION (3)

Prerequisites: 01:750:203-204 and 205-206, or equivalent. Required for physics majors, but also suitable for psychology, biological sciences, and other physical science majors.

Theory and use of integrated circuits and their interconnection to produce measuring devices, control apparatus, and interfaces for such devices to microcomputers.

01:750:341,342. PRINCIPLES OF ASTROPHYSICS (3,3)

Prerequisites: Two terms of introductory physics and two terms of calculus. Credit not given for both this course and 01:105:341,342.

Properties and processes of the solar system, the stars, and the galaxies; origin of the elements; evolution of the stars and the universe; neutron stars and black holes.

01:750:343. OBSERVATIONAL RADIO ASTRONOMY (3)

Lec. 1.5 hrs., lab. 3 hrs. Prerequisites: 01:750:341,342 or permission of instructor. Lab schedule will vary through the term. Credit not given for both this course and 01:105:343.

Observational study of the solar system, stars, and galaxies, using the Serin 3 meter radio telescope. Emphasizes computer techniques for data reduction and analysis. Topics may include calibrating system properties, the variability of the sun, Jupiter, quasars, and mapping the distribution of hydrogen in our Milky Way galaxy and measuring its rotation.

01:750:344. OBSERVATIONAL OPTICAL ASTRONOMY (3)

Lec. 1.5 hrs., lab. 3 hrs. Prerequisites: 01:750:341,342 or permission of instructor. Students must have nighttime hours free for observing. Credit not given for both this course and 01:105:344.

Observational study of the solar system, stars, and galaxies, using the Serin 0.5 meter optical telescope. Emphasizes computer techniques for data reduction and analysis. Topics may include the dimensions of lunar features, planetary satellite orbits, color-magnitude diagrams for star clusters, and the structure and colors of galaxies.

01:750:351. THERMAL PHYSICS (3)

Prerequisites: 01:640:CALC3; 01:750:227 or 272 or permission of instructor.

Principles of thermodynamics with physical and chemical applications: energy, entropy and temperature, the three laws of thermodynamics, cycles, open systems, critical phenomena, chemical equilibrium, ideal gas reactions, phase rule, phase diagrams, kinetic theory, and introduction to statistical mechanics.

01:750:361. QUANTUM MECHANICS AND ATOMIC PHYSICS (3)

Prerequisites: 01:640:CALC4; 01:750:228 or 273 or permission of instructor.

Introductory quantum mechanics: matter waves, uncertainty principle, stationary states and operators; the Schrödinger equation and its solutions for simple potentials; the hydrogen atom, quantization of angular momentum, spin; complex atoms and molecules.

01:750:368. JUNIOR SEMINAR (1)

For physics majors only.

Development of communication skills needed by professionals in physics and related fields. Oral and written reports, discussions of topics of current interest, and career options.

01:750:381-382. MECHANICS (3,3)

Prerequisites: 01:750:124 or 203 or 271; two terms of calculus. Corequisite: 01:640:CALC3 or permission of instructor. A theoretical course, primarily for physics majors.

Intermediate treatment of Newtonian mechanics, including particle dynamics, rigid body motion, accelerated and rotating reference frames, Lagrange's and Hamilton's equations.

01:750:385-386. ELECTROMAGNETISM (3,3)

Prerequisites: 01:640:CALC3; 01:750:227 or 272 or 324 or permission of instructor.

Intermediate course for physics majors and others who wish a thorough discussion of the fundamental laws of electromagnetism; electric and magnetic fields, dielectric and magnetic materials, D.C. and A.C. circuits, Maxwell's equations, electromagnetic radiation.

01:750:387-388. EXPERIMENTAL MODERN PHYSICS (3,3)

Prerequisites: 01:750:326, 327. Corequisite: 01:750:313 or 361 or permission of instructor. Credit not given for both 01:750:387 and 389.

Experiments in atomic, nuclear, condensed matter, and surface physics.

01:750:389. EXPERIMENTAL APPLIED PHYSICS (3)

Prerequisites: 01:750:326, 327. Corequisite: 01:750:313 or 361 or permission of instructor. Credit not given for both 01:750:387 and 389.

Experiments in classical and modern physics emphasizing techniques useful for applications.

01:750:397. PHYSICS OF MODERN DEVICES (3)

Prerequisites: Two terms of introductory physics and a course in calculus.

Physical laws and principles underlying modern devices and processes; examples including motors, generators, refrigerators, vacuum tubes, transistors, radio and television receivers, computers, rockets, nuclear reactors, radiation detectors, lasers, and holograms.

01:750:406. INTRODUCTORY SOLID STATE PHYSICS (3)

Prerequisites: 01:750:361 and 386, or permission of instructor.

Fundamental properties of metals, insulators, and semiconductors; dielectrics, magnetism, superconductivity.

01:750:417. INTERMEDIATE QUANTUM MECHANICS (3)

Prerequisite: 01:750:361.

Vector space formulation, operators, eigenfunctions, bound states, angular momentum, central potentials, approximation methods, scattering.

01:750:418. NUCLEI AND PARTICLES (3)

Prerequisite: 01:750:361.

Nuclear forces and models; classification and interactions of elementary particles.

01:750:441. STARS AND STAR FORMATION (3)

Prerequisites: 01:750:361, 385-386. Credit not given for both this course and 01:105:441.

Observed properties of stars. Internal structure of stars, energy generation and transport, neutrinos, solar oscillations. Evolution of isolated and double stars, red giants, white dwarfs, variable stars, supernovae. Challenges presented by formation of stars, importance of magnetic fields. Pre-main sequence stellar evolution.

01:750:442. HIGH ENERGY ASTROPHYSICS AND RADIATIVE PROCESSES (3)

Prerequisites: 01:750:361, 385-386. Credit not given for both this course and 01:105:442.

Radiation and scattering processes in plasma. Detection of X and gamma rays. Supernovae and remnants, pulsars. Gamma-ray bursts, accretion disks, and binary star outbursts. Quasars and active galactic nuclei, cosmic rays.

01:750:443. GALAXIES AND THE MILKY WAY (3)

Prerequisites: 01:750:381-382, 385-386. Credit not given for both this course and 01:105:443.

Properties of galaxies: photometry, kinematics, and masses. Disk galaxies: spiral patterns, bars and warps, gas content, star formation rates, chemical evolution. Elliptical galaxies: shapes. Structure of the Milky Way. Nature of dark matter.

01:750:444. INTRODUCTION TO COSMOLOGY (3)

Prerequisites: 01:750:361, 385-386. Credit not given for both this course and 01:105:444.

Expansion of the universe, techniques for distance estimation. Large-scale structure of the universe. Cosmological models: open, closed, flat, and accelerating universes. Microwave background: observations, properties, and origin. Problems of standard cosmology and preliminary concept of inflation.

01:750:451. PHYSICAL OCEANOGRAPHY (4)

Two 80-min. lec., one 55-min. rec. Credit not given for both this course and 01:628:451, 11:628:451, 16:712:501. Prerequisite: 01:750:204.

Principles of ocean physics. Mass, momentum, heat, and fresh-water conservation and atmospheric exchange. Influence of Earth's rotation. The ocean's role in climate. Tides, waves, and currents. Effects of ocean circulation on its biology and chemistry.

01:750:464. MATHEMATICAL PHYSICS (3)

Prerequisite: 01:640:423 or equivalent.

Physical applications of linear algebra, the exterior calculus, differential forms, complexes and cohomology. Applications include Hamiltonian dynamics, normal mode analysis, Markov processes, thermodynamics, Schrödinger's equation, special relativity, electrostatics, magnetostatics, Maxwell's equations, and wave equations.

01:750:487,488. SPECIAL TOPICS IN PHYSICS (3,3)

Prerequisite: Permission of instructor.

Study of selected areas in physics.

01:750:491,492. RESEARCH IN PHYSICS (BA,BA)

Prerequisite: Permission of instructor.

Independent research supervised by a member of the department.

01:750:493,494. INDEPENDENT STUDY IN PHYSICS (1-4,1-4)

Prerequisite: Permission of instructor.

Independent study supervised by a member of the department.

01:750:495,496. HONORS IN PHYSICS (1-4,1-4)

Prerequisite: Invitation of chairperson.

Supervised independent reading or research in theoretical or experimental physics culminating in an essay.

01:750:497,498. HONORS IN ASTRONOMY (1-4,1-4)

Prerequisite: Invitation of chairperson. Credit not given for both this course and 01:105:497,498.

Supervised independent reading or research in astronomy, culminating in an essay.

PHYSIOLOGY AND NEUROBIOLOGY

(See Life Sciences)

PLANNING AND PUBLIC POLICY 762

(See the Edward J. Bloustein School of Planning and Public Policy section)

POLISH 787

(See also European Studies 360)

Department of Germanic, Russian, and East European Languages and Literatures, Faculty of Arts and Sciences

Web Site: <http://seell.rutgers.edu>

Courses in English**01:787:259. TRADITION AND NATIONAL IDENTITY IN POLISH LITERATURE (3)**

Examination of the quest for national identity and the unique position of the writer in this search in the 19th and 20th centuries.

01:787:370. SPECIAL TOPICS IN POLISH STUDIES (3)

Credit not given for both this course and 01:861:370. Equivalent to 01:790:383, depending on instructor.

Topics related to Poland and Polish culture. Specific titles available at time of registration.

01:787:470. ADVANCED SPECIAL TOPICS IN POLISH STUDIES (3)

Prerequisite: Permission of department. Credit not given for both this course and 01:861:470.

Intensive study of a particular topic related to Poland and Polish culture. Specific titles available at time of registration.

01:787:475. SEMINAR IN POLISH STUDIES (3)

Prerequisite: Permission of department. Credit not given for both this course and 01:861:475.

Intensive seminar on selected topics related to Poland and Polish culture. Specific titles available at time of registration.

Courses in Polish**01:787:101,102. FIRST-YEAR POLISH (4,4)**

Fundamentals of the language, with exercises in speaking, reading, and writing.

01:787:201,202. SECOND-YEAR POLISH (4,4)

Prerequisite: 01:787:102 or equivalent.

Developing language skills; emphasis on speaking, drills, and grammar.

01:787:401,402. ADVANCED POLISH (3,3)

Prerequisite: Permission of department.

Advanced work in grammar and stylistics. Discussion based on reading original literature, newspapers, and essays, and on contemporary films.

01:787:493,494. INDEPENDENT STUDY: POLISH (3,3)

Prerequisite: Permission of instructor.

POLITICAL SCIENCE 790

(See also History / Political Science Joint Major 514)

Department of Political Science, Faculty of Arts and Sciences

Web Site: <http://www.polisci.rutgers.edu>

POLITICAL SCIENCE

Chairperson: Richard W. Wilson

Vice Chairperson for Undergraduate Studies: Susan E. Lawrence

Professors:

Myron J. Aronoff, B.A., *Miami (Ohio)*; M.A., Ph.D., *California (Los Angeles)*

Ross K. Baker, B.A., M.A., Ph.D., *Pennsylvania*

Stephen Eric Bronner, B.A., *CUNY (City College)*; M.A., Ph.D., *California (Berkeley)*

Susan J. Carroll, A.B., *Miami (Ohio)*; M.A., Ph.D., *Indiana*

Drucilla L. Cornell, B.A., *Antioch College*; J.D., *California (Los Angeles)*

Eric Davis, B.A., *SUNY (Binghamton)*; M.A., Ph.D., *Chicago*

Milton Heumann, B.A., *CUNY (Brooklyn College)*; M.Phil., Ph.D., *Yale*

Robert Kaufman, A.B., Ph.D., *Harvard*

Richard R. Lau, B.A., *Stanford*; M.A., Ph.D., *California (Los Angeles)*

C. Richard Lehne, B.A., *Reed College*; Ph.D., *Syracuse*

Jack Levy, B.S., *Harvey Mudd College*; M.A., Ph.D., *Wisconsin (Madison)*

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Wilson Carey McWilliams, A.B., M.A., Ph.D., *California (Berkeley)*

Manus I. Midlarsky, B.S., *CUNY (City College)*; M.S., *Stevens Institute of Technology*; Ph.D., *Northwestern*

Gordon Schochet, B.A., M.A., *Johns Hopkins*; Ph.D., *Minnesota*

D. Michael Shafer, B.A., *Yale*; M.A., Ph.D., *Harvard*

Tracy B. Strong, B.A., *Oberlin College*; Ph.D., *Harvard*

Richard W. Wilson, B.A., M.A., Ph.D., *Princeton*

Associate Professors:

Peter Dennis Bathory, B.A., *Oberlin College*; Ph.D., *Harvard*

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Susan Lawrence, B.A., *Furman*; M.A., Ph.D., *Johns Hopkins*

Barbara C. Lewis, B.A., *Smith College*; M.A., Ph.D., *Northwestern*

Edward Rhodes, A.B., *Harvard*; M.P.A., Ph.D., *Princeton*

Daniel Tichenor, B.A., *Earlham*; Ph.D., *Brandeis*

Harvey Waterman, B.A., *Southern California*; M.A., Ph.D., *Chicago*

Assistant Professors:

Beth L. Leech, B.S.J., *Northwestern*; Ph.D., *Texas A&M*

Lisa Miller, B.A., *Virginia*; M.A., Ph.D., *Washington*

Jeffrey Ritter, B.A., *Michigan*; M.A., *Johns Hopkins*; Ph.D., *Harvard*

The political science major is designed to expose students to the philosophical and practical problems of political organization, action, and governance and to encourage critical thinking about the nature of citizenship, rights, and duties in the modern world. The undergraduate political science curriculum is divided into three general areas: Theoretical Approaches to Politics, American Institutions and Politics, and Foreign and International Politics. While majors may choose to focus their studies on one of these areas, they are required to develop a solid intellectual foundation and understanding that spans all three and to approach the study of political science within the broader context of the social sciences.

Students completing the political science major are expected to develop the ability to read and listen critically, to reason analytically and engage in thoughtful moral judgment, and to write and speak clearly and forcefully. The major emphasizes the enhancement of key intellectual skills and qualities of mind—the habits of questioning, debating, challenging, and shaping coherent and persuasive arguments and interpretations—and seeks to involve undergraduates in the active research life of the Rutgers department.

Course work is organized into two general levels. Classes at the 100 and 200 levels are regarded as introductory and are designed to expose students to general concepts, basic knowledge, and modes of inquiry, as well as to serve as a foundation for additional course work. Classes at the 300 and 400 levels focus on more specialized issues, questions, or problems. In general, students should complete appropriate introductory course work before enrolling in upper-division classes.

Political science majors are encouraged strongly to take advantage of opportunities to engage in experiential learning at Rutgers. These opportunities include not only the one-term Washington Internship Program and Rutgers Study Abroad program, but internships supervised by the department and by the Rutgers Citizenship and Service Education (CASE) program.

Prior to declaring a major in political science, a student must complete at least two 100- or 200-level political science courses with an average grade of C or better. These courses can be counted toward major credit.

Major Requirements

1. Majors must complete 11 3-credit courses (or 10 3-credit courses and two 1.5-credit courses) in political science with a grade of C or better, including
 - a. at least *one* of the following introductory courses in Theoretical Approaches to Politics: 01:790:101 or 105;
 - b. at least *one* of the following introductory courses in American Institutions and Politics: 01:790:201 or 247;
 - c. at least *one* of the following introductory courses in Foreign and International Politics: 01:790:102 or 204 or 210;
 - d. at least *one* 300- or 400-level course in *each* of these three areas: Theoretical Approaches to Politics, American Institutions and Politics, and Foreign and International Politics. A list of courses falling into each area is available from the department.
 - e. 01:790:395 Political Science Seminar (normally taken in the junior year);
2. The major may include
 - a. no more than 12 credits of 100–200 level course work may be counted toward the major;
 - b. no more than 6 credits of independent study, internships, or thesis work, or any combination of these;
 - c. no more than 3 credits of minicourses.
3. In addition, majors must complete with a grade of C or better, two 3-credit courses in each of two of the following cognate departments: anthropology, economics, history, philosophy, psychology, religion, and sociology.
4. No more than four political science courses (12 credits) taken outside the Rutgers–New Brunswick/Piscataway Department of Political Science may be applied to the major. No winter session courses from any Rutgers campus or another university/college may be applied toward the major.

Joint Major in History/Political Science 514

This major is administered entirely by the Department of History. For further information, see the heading History/Political Science Joint Major 514 in this section of the catalog.

Minor Requirements

Minors must complete six 3-credit courses in political science with a grade of C or better. At least four of these courses must be at the 300 level or above. In addition, no more than 6 credits of independent study or internships or combination of these may be applied toward the minor. No more than two political science courses taken outside the Rutgers–New Brunswick/Piscataway Department of Political Science may be applied to the minor. No Winter

Session courses from any Rutgers campus or another university/college may be applied toward the minor.

Departmental Honors Program

The departmental honors program is intended for senior majors in political science. Students who have successfully completed at least 15 credits in political science with a 3.4 grade-point average or better in these courses and a 3.0 overall grade-point average or better are invited to apply. Eligible candidates may pursue honors by either of two courses of study. The first is a 6-credit senior thesis option in which students are expected to conduct original research and prepare an original piece of scholarship as their senior thesis. It involves enrollment in two terms of Honors in Political Science (01:790:495-496) in the senior year. Both terms must be completed to receive credit. Individual students are responsible for recruiting an appropriate faculty member to supervise their research and thesis. Interested students should draft a thesis proposal and consult with faculty members whose expertise lies in an appropriate area or with whom the student has taken courses previously. Individual faculty members will indicate their specific requirements for the completion of departmental honors. During the second term of work, a faculty committee will conduct an oral examination in which the honors candidate will defend his or her findings and will be expected to demonstrate a grasp of the literature in the area encompassed by the research undertaken.

The second way of achieving honors requires completion of a thesis through one of the colleges as a Paul Robeson Scholar, Henry Rutgers Scholar, or Mabel Smith Douglass Scholar. Students who select this option must meet the departmental grade-point average requirements for honors. Successful completion of any of these college honors programs under the supervision of a faculty member in the Department of Political Science automatically will result in the award of departmental honors.

Certificate Programs

Certificate Program in Quantitative Political Science Methods

The Certificate Program in Quantitative Political Science Methods is a program designed to lead to an understanding of how social scientists pose research questions, design tests of hypotheses, and analyze quantifiable information. These are valuable skills for the workforce and graduate school, as well as for informed citizens. A basic understanding of how social science research is conducted can help citizens evaluate the information they read about in the newspapers or hear about on television. Students completing the program will have put their methodological skills to use in their own in-class research projects, as part of their required junior seminar.

Requirements

1. This program is only open to declared political science majors, and will be awarded only in conjunction with or subsequent to the awarding of a baccalaureate degree in political science.
2. To participate in the program, students must register by submitting an application, providing name and contact information. Applications are available in the undergraduate political science office, Hickman Hall, Room 509.

3. Students must satisfactorily complete 01:790:300 Introduction to Political Science Methods.
4. Students must satisfactorily complete an approved section of 01:790:395 as their junior seminar.
5. Students must satisfactorily complete any three of the following courses (these courses also may be counted toward a student's standard political science degree requirements).

Political Science

- 01:790:307 Survey Research
- 01:790:349 Topics in American Politics
- 01:790:392 Applied Research Methods
- 01:790:481,482 Internship (with approved statistical or quantitative focus)

Economics

- 01:220:322 Econometrics
- 01:220:401 Advanced Econometrics
- 01:220:405 Economics of Uncertainty
- 01:220:436 Game Theory and Economics

Mathematics

- 01:640:104 Elementary Combinatorics and Probability
- 01:640:339 Mathematical Models in the Social Sciences

Psychology

- 01:830:200 Quantitative Methods in Psychology
- 01:830:300 Research Methods in Psychology
- 01:830:323 Research Methods in Social Psychology

Sociology

- 01:920:311 Introduction to Social Research
- 01:920:312 Computer Analysis of Social Science Data

Statistics

Any course in the statistics department.

Eagleton Undergraduate Associates Certificate (Eagleton Institute of Politics)

Each year 20 to 25 juniors are selected to participate as undergraduate associates of the Eagleton Institute of Politics to study government and politics. Students selected for this program begin during the second term of their junior year and continue through their senior year. By means of special seminars, a supervised internship, and a series of visits by governmental officials and political practitioners, undergraduate associates explore applications of political science to the practice and processes of American politics.

To complete the program and receive an Undergraduate Associates Certificate from the institute upon graduation, each student must complete 12 credits of designated undergraduate and/or graduate courses in American politics with an average grade of at least a B. During the second term of their junior year, students are required to take 01:790:428 The Practice of Politics, which focuses on the idea of politics as choice, with students analyzing different political decisions each week. During the spring term of their senior year, students are required to take 01:790:429 Processes of Politics, which examines representation, leadership, campaigning, lobbying, management, and ethics. The 6 remaining credits must be satisfied by taking 300 level or above political science course(s) in American politics and/or an internship. Members of the faculty participate as guest lecturers in the entry seminar, while the exit course includes

participation by political practitioners. Both courses emphasize individual and group participation by students.

The Eagleton Undergraduate Associates Program also offers students the opportunity to connect classroom learning with the experience of working in government, politics, or public affairs through a required internship experience. In recent years, students have been placed in internships in the New Jersey legislature, the governor's Office of Policy and Planning, various state departments, the public affairs' offices of corporations, public-interest groups, state associations, and lobbying firms.

Students must submit a completed application by the first week in October of their junior year to the director of the institute, along with an unofficial transcript and two letters of recommendation from faculty members, including at least one from a political science professor. For further information, see <http://www.eagleton.rutgers.edu>.

Note: The Eagleton Undergraduate Associates Certificate is awarded only with or subsequent to the awarding of a baccalaureate degree in an approved major.

Global Politics Certificate

Within the context of broad training in political science, this certificate program structures multidisciplinary course work and overseas educational experiences to offer a focused but flexible course of study for students interested in understanding the transformation of politics, political structures, and political institutions around the globe. The certificate requires overseas experience as well as language and political science training necessary to make such an experience valuable. It offers the opportunity to employ and build upon the ideas and insights acquired abroad in research and other activities back at Rutgers. Emphasizing work in comparative politics and international relations, the certificate program allows majors to develop research skills relevant to further study and encourage them to participate in the research life of the department through the activities of the Center for Global Security and Democracy.

While the career interests of students undertaking this major are diverse and there is no expectation that they will pursue any particular career track, the preparation offered by this major will be valuable for students interested in transnational organizations or institutions; American foreign policy; graduate study in international affairs, public policy, international business and law, or an academic discipline.

Requirements

1. This program is open only to declared political science majors.
2. Students must submit an application for approval and signatures to the Director of the Center for Global Security and Democracy and to the Undergraduate Vice Chair for Undergraduate Studies in the Department of Political Science. As part of this application, students must also submit a brief essay describing their interests and background.
3. Students must complete all political science major requirements as modified and supplemented below with a grade of C or better:
 - a. 01:790:102 and 01:790:210
 - b. a minimum of four 300- to 400-level courses in foreign and international politics, not including the senior thesis, internship, independent study, or 01:790:395 Political Science Seminar.

- c. a minimum of 13 3-credit courses in political science, at least nine of which must be at the 300 to 400 level and one of which must be 01:790:395.
- d. an international experience, defined as study abroad through Rutgers or an accredited university; a CASE international program through Rutgers; or work with an international or transnational agency. A one-term experience is the norm, one year is recommended, and one summer is permissible under special circumstances only. Arrangements for the international experience must be approved by the department in advance. Academic credit toward the major is awarded on a case-by-case basis.
- e. a minimum of six 3-credit courses (of which three must be in one department) in the following cognate disciplines: anthropology, economics, history, philosophy, psychology, religion, sociology.
- f. demonstrated proficiency in a relevant foreign language, defined as qualifying by written and oral exam for the equivalent of a 300-level course in that language or completion of courses through the 300 level.
- g. participation in four extracurricular global program events approved by Director of Center for Global Security and Democracy or the Undergraduate Vice Chair for Undergraduate Studies in the Department of Political Science, followed by summary report for each event.

Courses

01:790:101. NATURE OF POLITICS (3)

Recommended for political science majors.

Crucial issues in politics: individual and community; political obligation and civil disobedience; stability, revolution, and change; legitimacy and justice; freedom and power.

01:790:102. INTRODUCTION TO INTERNATIONAL RELATIONS (3)

Explanations of patterns of behavior in international systems. Topics include the state, sovereignty, war, power, nationalism, imperialism, security dilemmas, interdependence, international regimes, and ethical issues.

01:790:105. AMERICAN POLITICS: PUBLIC AND PRIVATE (3)

Evolution of the American polity and its relationship to the world of private culture. Technology, political violence, alienation, bureaucracy, and mass media.

01:790:201. AMERICAN GOVERNMENT (3)

Comprehensive analysis of American political institutions. Issues and problems faced by federal, state, and local governments under the impact of modern conditions. The leading political, economic, and social influences affecting democratic government.

01:790:204. CAPITALISM, SOCIALISM, AND DEMOCRACY (3)

Genesis and development of democracies and dictatorships in advanced industrial societies and in the third world. Role of capitalism; revolutionary, conservative, and liberal movements; contemporary forms of imperialism and dependency.

01:790:210. COMPARATIVE POLITICS (3)

Selected political systems considered in a comparative framework. Cases taken from among both more and less economically developed countries. Focuses on governmental processes and institutions.

01:790:220. THE CIVIC COMMUNITY AS THEORY AND PRACTICE (3)

Corequisite: 01:790:400 Independent Study: CASE Community Service Placement (1).

Critical examination of issues of civil community, citizenship, democracy, and civic responsibility. Includes special activities and discussion of community service performed in conjunction with course.

01:790:237. POLITICAL ECONOMY AND SOCIETY (3)

Introduction to issues raised by the changing role of government toward business and the economy; survey of major policies; introduction to competing schools of political economic thought.

01:790:247. LAW AND POLITICS (3)

Inquiry into role of law and politics in federal court system. Focus on interaction between Supreme Court, Congress, and president. Assessment of role of courts in the United States.

01:790:250,251,252,253. TOPICS IN POLITICAL SCIENCE (1.5,1.5,1.5,1.5)

Special topics that vary with the instructor.

01:790:300. INTRODUCTION TO POLITICAL SCIENCE METHODS (3)

No special math skills required.

Logic and techniques of social science research. Topics may include survey research, experiments, content analysis, data processing, and elementary statistics.

01:790:301. POLITICAL CAMPAIGNING (3)

Development of campaign strategy, planning campaign activities, campaign organization, financing, public relations and media use, voter contact, polling, campaign ethics, the impact of campaigns on the American system.

01:790:302. AMERICAN PARTY POLITICS (3)

Nature and functioning of the two-party system, its causes and effects. Particular attention devoted to the electoral role of parties, including political leadership and organization, nominations, campaigns, finance, and party programs.

01:790:303. ELECTIONS AND PARTICIPATION (3)

Mass political participation in the United States as reflected in voting, electoral politics, and other forms of political participation.

01:790:304. CONGRESSIONAL POLITICS (3)

Functions of legislatures; their structure, organization, and procedure; the problems and principles of lawmaking; and the process by which law is created.

01:790:305. PUBLIC POLICY FORMATION (3)

Origin and impact of public policy decisions on society. How specific decisions are made. How these decisions affect the structure of society. Individual cases analyzed.

01:790:306. AMERICAN PRESIDENCY (3)

Historical and legal evolution of the office of the presidency. Role of the president as party leader, chief legislator, executive, and public spokesman.

01:790:307. SURVEY RESEARCH (4)

Prerequisite: 01:790:300.

Theory and practice of mass opinion surveys and their use in political science. Sampling theory, questionnaire format, question framing, interviewing, coding, and interpretation of results.

01:790:308. NEW JERSEY POLITICS (3)

Examination of various aspects of politics in New Jersey, including elections, governmental institutions, and public policies and the policy-making process.

01:790:309. THE POLITICS OF PUERTO RICAN DEVELOPMENT (3)

Credit not given for both this course and 01:836:309.

Analysis of relationship between political and economic development in the 20th century, changing nature of U.S. / Puerto Rican relations, formation of the colonial state, and the statehood and independence movements.

01:790:310. GOVERNMENT OF BRITAIN AND THE COMMONWEALTH (3)

Institutions and political practices in Great Britain and the Commonwealth of Nations. Emphasis on the functioning of democracy in the changing social, economic, and psychological conditions of the 20th-century world.

01:790:311. EUROPEAN POLITICS (3)

Analysis of national governments in western Europe and of the European Union (EU). Focus on contemporary issues including economic liberalization, welfare state reform, European law, foreign policy, and enlargement to eastern Europe.

01:790:312. CHANGE IN LATIN AMERICA (3)

Emerging political and social issues in Latin America: development, democratization, sovereignty, religion, gender, race, migration.

01:790:313. COMPARATIVE POLITICAL DEVELOPMENT OF THE FAR EAST (3)

Government of the principal states of eastern Asia and the western Pacific, their domestic politics, and foreign policies.

01:790:314. SUB-SAHARA AFRICAN POLICIES (3)

Patterns of political change and political development in Africa south of the Sahara.

01:790:315. POLITICS AND CULTURE (3)

Relationship among various aspects of culture, e.g., the role of symbol, myth, ritual, and religion and its relationship to politics.

01:790:316. POLITICS, LITERATURE, AND THE ARTS (3)

Credit not given for both this course and 01:195:316.

Discussion and analysis of political elements in selected aesthetic works that vary with the instructor.

01:790:317. GLOBALIZATION AND THE NON-WESTERN WORLD (3)

Credit not given for both this course and 01:685:317.

Theoretical understanding of the political, economic, social, and cultural dimensions of globalization. Study of these theories within the context of selected non-Western countries using social science texts, literature, and films.

01:790:318. COMPARATIVE PUBLIC POLICY (3)

Inquiry into a current major area of public policy drawn from the field of comparative politics or international relations. Policy area varies from year to year.

01:790:319. ISSUES OF AMERICAN FOREIGN POLICY (3)

Analysis of the major substantive questions facing U.S. foreign policy.

01:790:321. THEORIES OF WORLD POLITICS (3)

Alternative theories of world politics with emphasis on basic causal factors affecting global behavior.

01:790:322. STRATEGY IN INTERNATIONAL RELATIONS (3)

Examination of the dynamics of contemporary international politics, including strategic and bargaining theory.

01:790:323. DEFENSE POLICY (3)

Formulation of defense policy and doctrine, weapons development, the role of threats. Critical review of current U.S. military decisions.

01:790:324. CAUSES OF WAR (3)

Recent scientific research on the emergence of serious disputes, escalation, conflict spirals, arms races, the outbreak of war, consequences of war, and conditions of peace.

01:790:326. AMERICAN POLITICS: EXECUTIVE AND LEGISLATIVE DECISION MAKING (3)

Develops three models of individual decision making and applies them to executive and legislative branch decision making.

01:790:327. INTERNATIONAL POLITICAL ECONOMY (3)

Interdependence of political and economic structures and processes in the development and management of the modern world economy.

01:790:328. CONFLICT AND CHANGE IN THE CARIBBEAN (3)

Credit not given for both this course and 01:836:328.

Social development and political economy of the Caribbean in the context of its integration and membership in the capitalist world system. Interimperialist conflict and rivalry and their impact on the development of West Indian societies. The Caribbean as a microcosmos of the third world.

01:790:329. LATINO POLITICS IN THE UNITED STATES (3)

Credit not given for both this course and 01:836:329.

Political organization of Latino communities in the Northeast since World War II. Role of Latinos in shaping U.S. domestic and foreign policy, the impact of immigration and language policies on political organization.

01:790:330. INTEREST GROUPS (3)

Role interest groups play in the representation of constituent interests, formulation of public policy, and implementation of governmental programs.

01:790:331. URBAN POLITICS (3)

City politics and public policy. Urban government and major urban problems such as finance, poverty, housing and economic development, education, crime, transportation, and the environment.

01:790:333. POLITICAL DEVELOPMENT OF AMERICAN RACE RELATIONS (3)

Development of race relations in the United States beginning with slavery. Relationship between the politics of race and the politics of class.

01:790:334. POLITICS OF BLACK AMERICA (3)

Political perspectives and strategies of black Americans and the responsiveness of the American political system to the interests and demands of the black community.

01:790:335. WOMEN AND AMERICAN POLITICS (3)

Credit not given for both this course and 01:988:335.

Women's participation in American politics, with emphasis on the attitudes and behavior of women as voters, activists, and officeholders.

01:790:336. AMERICAN POLITICAL MOVEMENTS (3)

Origins and development of political and social movements in America; theories of their decay, reform, or absorption into the mainstream of American political life.

01:790:337. AMERICAN POLITICAL ECONOMY (3)

Analysis of the political factors associated with the structure of the American economy.

01:790:338. GOVERNMENT AND BUSINESS (3)

Relations between business and government. Assessment of impact of governmental action on business. Analysis of lobbying, business participation in electoral process, public service and public image activities, and legal relations with government.

01:790:339. CONTEMPORARY DOMINICAN POLITICS AND SOCIETY (3)

Credit not given for both this course and 01:836:339.

Examination of Dominican politics, economy, and society from the start of the Trujillo era (1930) to the present. Focus on the authoritarian legacy of the Trujillo dictatorship, relations with the United States, electoral politics in the post-Trujillo period, and recurring trends of caudilloism, militarism, clientelism, and personalism in Dominican society.

01:790:340. LAW AND SOCIETY (3)

Examination of different ways of understanding law and its social, cultural, and political significance. Topics may include the nature of law, crime and punishment, the "adversary ethic," law and morality, law's role in structuring social relationships, civil disputes, and feminism and the law.

01:790:341. PUBLIC ADMINISTRATION: AMERICAN BUREAUCRACY (3)

Institutional setting and political relationships in administration; leadership, decision making, personnel and budgeting functions; administrative law and regulation; the problem of responsibility.

01:790:342. PUBLIC ADMINISTRATION: POLICY MAKING (3)

Bureaucracy's role in policy formulation, implementation, and rule making with an emphasis on state and local influences on federal policy initiatives.

01:790:344. PUBLIC OPINION (3)

Theory and research on public opinion in the United States, including uses and abuses of polls, recent trends in political and social opinions, and relationship between public opinion and public policy.

01:790:345. MASS MEDIA AND U.S. DEMOCRACY (3)

Theoretical and actual role of mass media in the United States, including the structure of mass media industry, news production, effects on political and social views, and how the media are regulated.

01:790:346. POLITICAL SOCIALIZATION (3)

Theory and process of the development of political attitudes. The influence of the family, school, media, occupation, personality, and social background.

01:790:348. PSYCHOLOGY AND POLITICS (3)

Political behavior of individuals and groups. Themes selected from personality and politics, attitude change, leadership, cognitive development, identity, ideology, psychology of oppression, and role theory.

01:790:349. TOPICS IN AMERICAN POLITICS (3)

Credit not given for both this course and 01:014:349.

Special topics in American politics that vary with the instructor.

01:790:350. ENVIRONMENTAL POLITICS—UNITED STATES AND INTERNATIONAL (3)

Environmental politics and policy from American, comparative, and international perspectives. National styles of regulation, trade-environment conflicts, role of international institutions.

01:790:351. CONTEMPORARY POLITICS IN THE MIDDLE EAST (3)

Contemporary politics of the Middle East through scholarly literature and through documentary-type films dealing with socioeconomic and cultural influences on politics.

01:790:352. ISRAELI POLITICS (3)

Basic understanding of the historical background of the establishment of the state of Israel; major characteristics of the political culture and institutions and how they have responded to the dynamic sociocultural and political changes that have shaped the society.

01:790:353. GOVERNMENT AND POLITICS OF SOUTHEAST ASIA (3)

Comparative examination of Burma, Thailand, Malaysia, Vietnam, Laos, Cambodia, Philippines, and Indonesia.

01:790:354. SOUTHEAST ASIA IN WORLD AFFAIRS (3)

Examination of the emergent states of Southeast Asia in world affairs with specific reference to big-power diplomacy, the United Nations, regionalism, neutralism, and war.

01:790:355. WOMEN AND PUBLIC POLICY (3)

Credit not given for both this course and 01:988:355.

Examination of major public policy questions affecting women. Topics, drawn from the United States and other societies, may include reproduction issues, economic equality, violence against women, and political rights.

01:790:357. COMPARATIVE POLITICAL ECONOMY (3)

Analysis of different approaches to political economy and the interaction of political, social, and economic forces in historical perspective.

01:790:358. GLOBALIZATION, DEMOCRACY, AND CONTEMPORARY CAPITALISM (3)

Comparison of contemporary market economies in developed and developing countries, how they are affected by integration into global markets, and the implications for democracy.

01:790:361. INTERNATIONAL ORGANIZATIONS (3)

Review of League of Nations, United Nations, World Court, and specialized agencies.

01:790:362. INTERNATIONAL LAW (3)

Fundamental rules of international law in its relation to the state and the individual. Discussion of cases, status, treaties.

01:790:363. CONFLICT RESOLUTION IN WORLD POLITICS (3)

Nature and management of conflict in world politics, with emphasis on the instruments and limits of national power; sources of international conflict; changing patterns of alliance and alignment; and approaches to peace, reconciliation, and stability.

01:790:365. GENDER AND POLITICAL THEORY (3)

Credit not given for both this course and 01:988:365.

Role and place of gender in political thought. Readings drawn from major historical theorists and modern feminists.

01:790:366. FORMULATION OF AMERICAN FOREIGN POLICY (3)

Foreign policy from an internal point of view; major institutions and constraints on policy implementation.

01:790:369. TOPICS IN WORLD POLITICS (3)

Prerequisite: Permission of instructor.

Intensive examination of a number of significant questions related to world politics. Questions vary with instructor.

01:790:370. TOPICS IN POLITICAL THEORY (3)

Examination of major issues in political theory. Topics vary by instructor.

01:790:371. WESTERN TRADITION: PLATO TO MACHIAVELLI (3)

Relationship of man to society and the political order and the ethical foundations of politics as seen by the major Western political philosophers. Plato to Machiavelli.

01:790:372. WESTERN TRADITION: HOBBS TO MILL (3)

Relationship of man to society and the political order and the ethical foundations of politics as seen by the major Western political philosophers. Hobbes and Rousseau to Mill and Marx.

01:790:373. LEGAL PHILOSOPHY, RIGHTS, AND JUSTICE (3)

Place of law in the democratic state. The nature of law, its role in regulating behavior, legal reasoning, rival legal theories; the conflict between positivism and the theory of law; punishment and responsibility; various standards of justice.

01:790:374. DEMOCRATIC POLITICAL PHILOSOPHY (3)

Analysis of the relationship between ethics and politics in contemporary democracy and current challenges to traditional democratic theory. Political obligation, the justification of authority, disobedience and the right of resistance, freedom, social justice, and equality.

01:790:375. AMERICAN POLITICAL THOUGHT (3)

Philosophical and theoretical foundations of the American republic with attention to themes and conflicts in American thought and culture. European background and political thought of the colonial period to the Civil War.

01:790:376. AMERICAN POLITICAL THEORY (3)

American political thought and philosophy in the era of industrialism, world power, and mass society. The political thought of political movements since the Civil War.

01:790:377. MARX AND MARXIST THEORY (3)

Development of Marxist thought from Hegel to the 20th century. Alienation, class consciousness and class struggle, universal human emancipation, the labor theory of value, historical materialism, and the dialectic.

01:790:378. THEORIES OF THE LABOR MOVEMENT (3)

Explores the various democratic, socialist, and Marxist ideas that influenced the labor movements of the 20th century. Particular emphasis on Karl Marx, Edward Bernstein, Lenin, Eugene Debs, Rosa Luxemburg.

01:790:380. RUSSIAN AND CENTRAL EUROPEAN POLITICAL THOUGHT (3)

Russian and central European Marxism; its origins in the 19th-century political thought of the region; Marx, Engels, Lenin, Stalin, and their intellectual opponents. Intellectual roots of the 1989–1991 revolutions.

01:790:381. POST-COMMUNIST DEMOCRACIES (3)

Examination of democracy building in the post-communist world. Focus on the interaction between legacies of communism and new institutional designs in Russia and eastern Europe. Major patterns of post-communist politics identified, compared, and analyzed. Emphasis on political institutions, historical legacies, and cultural contexts.

01:790:382. FOREIGN POLICY OF RUSSIA AND THE EAST EUROPEAN STATES (3)

Foreign policies of Russia, other Soviet “successor” states, and East European countries since 1989. Includes discussion of main features of foreign policy of former Soviet Union, relations between the Soviet Union and its satellite states, and international ramifications of the collapse of the Soviet bloc.

01:790:383. POLITICS OF POST-COMMUNIST ECONOMIC REFORMS (3)

Specific patterns of interaction between post-communist politics and economic reforms examined. Brief introduction to political economy of communism and its collapse. Politics of economic reforms. Discussion of neoliberalism, mechanisms of accountability, corruption, and clientelism.

01:790:385. ARAB POLITICS AND SOCIETY (3)

Study of Arab nationalism, civil-military relations, radical Islam, women in politics, and ethnic relations through social science readings and literature in translation.

01:790:386. POLITICAL CHANGE IN CHINA (3)

Changes taking place in China in the 20th century, with particular emphasis on the People's Republic of China. The utility of various types of comparative analysis.

01:790:388. IDEOLOGIES OF THE RIGHT (3)

Centers upon the sociopolitical experience of conservative and often reactionary movements in selected countries. Leading theorists discussed.

POLITICAL SCIENCE

01:790:389. TOPICS IN COMPARATIVE POLITICS (3)

Selected topics in comparative politics that vary with the instructor.

01:790:392. APPLIED RESEARCH METHODS (3)

For students considering graduate study.

Detailed instruction in methods of research in political science. Survey design, simulation, documentary analysis, use of computers, the epistemology of political science.

01:790:395,396. POLITICAL SCIENCE SEMINAR (3,3)

Open to political science majors only.

Seminars involving analysis, discussion, and research of topics in political science.

01:790:397. WASHINGTON INTERNSHIP (9)

Prerequisites: 12 credits in political science, including 3 credits of introductory American government and 3 credits of advanced American government, or equivalent with permission of department; and junior or senior standing. Corequisite: 01:790:494. Graded Pass/No Credit. Field experience: 35 hours per week plus speaker series and group sessions. Residence in Washington, DC, required.

Internship in a government or public-service agency in Washington, DC.

01:790:399,400. INDEPENDENT STUDY (1,1)

Prerequisite: Permission of department before registration. Must be taken in conjunction with a 3-credit political science course specified in course list.

01:790:401. AMERICAN CONSTITUTIONAL LAW I (3)

Exploration of forms of legal reasoning and argumentation through close analysis of U.S. Supreme Court cases. Focus on economic policy, property rights, and substantive due process cases.

01:790:402. AMERICAN CONSTITUTIONAL LAW II (3)

Study of the dynamics of the American system of constitutional law with emphasis on national regulatory power, the role of Congress, the parameters of the war power, foreign relations, and the presidency in the constitutional structure.

01:790:404. POLITICS OF CRIMINAL JUSTICE (3)

Systematic examination of the relationship between political variables, crime rates, police behavior, court dynamics and sentences, and prison practices and functions.

01:790:406. CIVIL LIBERTIES AND CIVIL RIGHTS (3)

Political and civil rights and duties, such as freedom of the person; elementary freedoms of speech, press, assembly, and religion; freedom against arbitrary action; discrimination; free interchange of ideas.

01:790:409. COURTS AND PUBLIC POLICY (3)

Examines the legitimacy, capacity, and effectiveness of policy making by the judicial branch.

01:790:410. ADVANCED STUDIES IN LAW (3)

Prerequisite: Permission of instructor.

Intensive seminar on selected public law issues.

01:790:418. DEMOCRACY AND MARKETS IN LATIN AMERICA (3)

Transitions from authoritarian to democratic regimes in Latin America; economic policy challenges faced by new democratic governments; and prospects for the consolidation of democratic regimes.

01:790:419. RESEARCH SEMINAR ON CAUSES OF WAR (3)

Prerequisites: At least one course in international relations or foreign policy and permission of instructor.

Survey of the leading theories of the causes of war; student research projects on the causes of individual wars; comparison of the causes of different wars.

01:790:423. CONTEMPORARY FEMINIST THEORY (3)

Credit not given for both this course and 01:988:423.

Survey of both classic and contemporary texts in feminist theory emphasizing their relevance for modern political thought and social praxis.

01:790:424. GENDER AND POLITICAL ECONOMY (3)

Feminist theories of political economy. Effects of economic change on women, political responses of women's movements in the United States and internationally; differences of race, class, sexuality, and nation in shaping such effects and responses.

01:790:426. GENDER, PUBLIC POLICY, AND LAW (3)

Advanced topics in gender, public policy, and law, focusing on a selected cluster of current issues. Topics may include regulation of sexuality and reproduction, labor organizing and labor politics, politics of welfare and poverty, and issues in health policy and politics.

01:790:428. THE PRACTICE OF POLITICS (3)

Required of, and limited to, participants in the Eagleton Undergraduate Associates Certificate Program.

Emphasizes the interaction of political science theory and literature with the realities of political experience.

01:790:429. PROCESSES OF POLITICS (3)

Open only to participants of the Eagleton Undergraduate Associates Certificate Program. Permission of instructor required.

Exploration of significant aspects of the American political system, including representation, leadership, bargaining, advocacy, participation, and achievement.

01:790:430. ADVANCED STUDIES IN PUBLIC POLICY (3)

Special topics in public policy that vary with the instructor.

01:790:437. POLITICS OF AMERICAN CAPITALISM (3)

Impact of continuing industrial and technological development on politics in Western society. Impact of multinational corporations on national sovereignty, stagflation, alienation, feminism, race relations, trade unionism, and youth culture.

01:790:438. LABOR AND AMERICAN POLITICS (3)

Role of the labor movement in American politics. Importance of the workplace, community, ethnicity, and development of differentiated labor markets for political attachments and attitudes.

01:790:439. ADVANCED STUDIES IN POLITICAL ECONOMY (3)

Selected topics in political economy that vary with the instructor.

01:790:440. ADVANCED STUDIES IN AMERICAN POLITICS (3)

Selected topics in American politics that vary with the instructor.

01:790:442. POLITICAL LEADERSHIP (3)

Focus on the leader's problem of self-definition in a democratic society. General issues explored through works in modern political theory and ego psychology. Specific problems of American political leadership examined through political novels, biographies, and case studies.

01:790:450. ADVANCED STUDIES IN COMPARATIVE POLITICS (3)

Selected topics in comparative politics that vary with the instructor.

01:790:451. CRITICAL PERSPECTIVES ON THE MIDDLE EAST (3)

Credit not given for both this course and 01:685:451.

Promotes critical thinking about the Middle East by analyzing how stereotypes and Western political theories hinder intercultural understanding and encourage students to think more dynamically about the relationship between the United States and the third world.

01:790:452. ADVANCED TOPICS IN MIDDLE EASTERN POLITICS (3)

Prerequisite: Permission of instructor. Credit not given for both this course and 01:685:452.

Detailed analysis of selected topics including religious radicalism, Israeli-Palestinian conflict, gender politics, the authoritarian state, nationalism, politics of authenticity, and political economy of development.

01:790:453. COMPARATIVE POLITICAL ANTHROPOLOGY (3)

Development of political anthropology and its relationship to political science. Major approaches and trends in the field; kinship, patron-client relations, social networks, political symbols, myths, rituals, ideology, and their roles in political change.

01:790:454. POLITICAL DEVELOPMENT OF ASIA (3)

Roots of modern nationalism in various Asian nations; emphasis on leaders and ideas.

01:790:455. CULTURE AND REVOLUTION IN THE MIDDLE EAST (3)

Credit not given for both this course and 01:685:455.

Middle Eastern culture and its relationships with revolutionary movements and radical Islam. Major perspectives on current discourses regarding revolution and Middle Eastern culture.

01:790:457. ISLAMIC LAW AND JURISPRUDENCE (3)

Credit not given for both this course and 01:685:457.

Introduction to Islamic legal theory in its historical and modern political contexts. Contrasts Islamic law and legal theory with Western legal theory and constitutional thought.

01:790:470. ADVANCED STUDIES IN POLITICAL PHILOSOPHY (3)

Selected topics in political philosophy that vary with the instructor.

01:790:471. MACHIAVELLI AND THE RENAISSANCE (3)

The Prince and other political works of Machiavelli in the context of the Renaissance.

01:790:472. RELIGION AND POLITICS (3)

Relationship between religion and political life. Emphasis on the work of religious and political theorists. The place of religion in American political life and discussion of religion in contemporary politics.

01:790:473. CRITICS OF MODERNITY (3)

Writings of Alexis de Tocqueville, Karl Marx, Friedrich Nietzsche, Sigmund Freud, and Max Weber and their impact on 20th-century social and political thought.

01:790:477. CRITICAL THEORY AND SOCIETY (3)

Course emphasizes the development of dialectical thought in the 20th century. Emphasis placed on "Frankfurt School" and its major representatives such as Max Horkheimer, Theodore Adorno, Walter Benjamin, and Herbert Marcuse.

01:790:481,482. INTERNSHIP IN POLITICAL SCIENCE (3,3)

Prerequisite: Permission of department before registration.

Work in a designated agency; an appropriately designed academic project resulting in a paper.

01:790:488. FIELD INTERNSHIPS IN POLITICAL SCIENCE (3 OR 6)

Pre- or corequisites: Junior or senior status and permission of department.

Internship in a government or public affairs office working 10 to 25 hours per week according to the number of credits elected. Graded on a Pass/Fail basis.

01:790:491,492. ADVANCED INDEPENDENT STUDY AND RESEARCH (3,3)

Prerequisite: Permission of department before registration.

Supervised individual study of selected topics of interest with extensive reading and / or independent research project.

01:790:494. WASHINGTON RESEARCH (6)

Corequisite: 01:790:397. Graded credits.

Internship-related seminar and research paper submitted to the department.

01:790:495-496. HONORS IN POLITICAL SCIENCE (3,3)

Open only to senior majors with 15 credits in political science and a 3.4 grade-point average or better in political science and a 3.0 or better cumulative grade-point average. Both 01:790:495 and 496 must be completed to receive credit.

Independent readings on a specialized topic of interest; completion of research paper and an oral defense.

01:790:497-498. THESIS IN POLITICAL SCIENCE (6,6)

Prerequisite: Permission of department. Both terms must be completed in order to receive credit. For students writing an honors thesis.

PORTUGUESE 810

Department of Spanish and Portuguese, Faculty of Arts and Sciences

Web Site: <http://span-port.rutgers.edu>

Chairperson: Thomas M. Stephens

Assistant Professors:

César Braga-Pinto, B.A., Universidade de São Paulo; M.A., San Francisco State; Ph.D., California (Berkeley)

Phillip Rothwell, B.A., M.A., Ph.D., Cambridge

Instructor:

Ana Paula Serra, B.A., Rutgers; M.A., Ph.D., New York

Major Requirements

A major in Portuguese consists of 36 credits with a grade of C or above in each course, of which 30 credits must be completed at the 200 level or above in classes taught in Portuguese. The following course taught in English will count for the major if all written work is done in Portuguese: 01:810:240. In addition, 6 credits from two different disciplines related to the major must be selected. The student's entire course of study must be approved by a departmental adviser.

Minor Requirements

A minor in Portuguese consists of 18 credits, taught in Portuguese, with a grade of C or better in each course, of which 9 credits must be in literature. The following course taught in English will count for the minor if all written work is done in Portuguese: 01:810:240. The student's entire course of study must be approved by a departmental adviser.

Departmental Honors Program

To be eligible for graduation with departmental honors, majors must maintain a cumulative grade-point average of 3.5 or better in their major courses, and 3.25 or better overall. Students are admitted to the departmental honors program by selection of the honors committee. The honors project is two terms in duration (3 credits each term), and may focus on any aspect of Luso / Brazilian / Portuguese language, linguistics, literature, or culture. Prior to beginning the honors project, the student is expected to complete at least

two courses at the 300 level and one course at the 400 level. Two additional 400-level courses are required prior to graduation. The student must present the honors project for an oral defense before a committee assembled by the project director, in consultation with the candidate. More detailed information is available in the Department of Spanish and Portuguese.

Study Abroad

Rutgers sponsors summer study abroad programs in Spain, Peru, and Brazil. Information about these and other study abroad opportunities is available in the department office.

Portuguese Major/Global Studies Certificate

Requirements

- 36 credits toward the Portuguese major.
- Eight courses, with a grade of C or above in each course, to be chosen from among options a, b, c, or d listed below. No more than two courses may be used to fulfill both the Portuguese major and the global studies certificate. The student's entire program must be approved by a departmental adviser.
 - The Hispanic World.* Students must choose a balance of courses between Spanish America and Spain within each of the following groups:

Group 1 (Economics, History, Political Science):
Four courses to be drawn from Africana studies, economics, history, Latin American studies, political science, Puerto Rican and Hispanic Caribbean studies, sociology, or other related departments or programs (including courses taken abroad).

Group 2 (Studies on Culture):
Four courses to be drawn from Africana studies, anthropology, archaeology, art history, Latin American studies, Puerto Rican and Hispanic Caribbean studies, Spanish and Portuguese, or other related departments or programs (including courses taken abroad).
 - The Luso-Brazilian World.* Students must choose a balance of courses between Brazil and Portugal within each of the groups mentioned in option a above.
 - Latin America.* Students must choose a balance of courses between Spanish American countries and non-Spanish-speaking countries within each of the groups mentioned in option a above.
 - Iberian Peninsula.* Students must choose a balance of courses between Spain and Portugal within each of the groups mentioned in option a above.
- In addition to the eight courses required above, an exit seminar involving a research project (15 to 20 pages) on a topic of international or global scope. The seminar also requires participation in extracurricular global programs events. The seminar must be taken during the senior year or year of graduation.
- An international experience of one year during the junior year in an appropriate country or countries approved by a departmental adviser. A one-term option or summer option will be considered under extraordinary circumstances.

Additional information is available at the program's web site.

Minor in African Area Studies

Note: The following courses count toward the minor in African area studies with a concentration on Lusophone Africa. Interested students must inform themselves about other requirements for the minor in African area studies in this catalog and with a program adviser.

- 01:810:309 Africa and Portugal: An Introduction (3)
- 01:810:350 Literatures and Cultures of Lusophone Africa (3)
- 01:810:440 The Portuguese-Speaking World: Multiple Perspectives (3)

Courses in English

01:810:160. PORTUGUESE IN THE WORLD (1.5)

Taught in English. Not for major or minor credit.

Current issues in the language, literature and culture of the Portuguese-speaking world. Analysis of topics such as cultural identity, language contact, major literary authors, or historical implications of colonization.

01:810:240. THE LUSO-HISPANIC DIALOGUE: MULTIPLE PERSPECTIVES (3)

Credit not given for both this course and 01:940:240. Course taught in English, but knowledge of Spanish and/or Portuguese is necessary. Course will count for the Portuguese major or minor if all written work is done in Portuguese.

Relationship between the Portuguese-speaking and Spanish-speaking worlds as it manifests itself culturally, linguistically, and historically.

01:810:241,242. THE PORTUGUESE-SPEAKING WORLD: A LITERARY INTRODUCTION FOR ENGLISH SPEAKERS (3,3)

Taught in English. Not for major or minor credit.

Introduction to literary texts from the Portuguese-speaking world (Portugal, Brazil, and Lusophone Africa).

Courses in Portuguese

01:810:101-102. ELEMENTARY PORTUGUESE (4,4)

Open only to those with no prior knowledge of Portuguese. Not open to speakers of Spanish.

Speaking, reading, and writing; oral, aural, and written exercises.

01:810:130. INTERMEDIATE PORTUGUESE (4)

Prerequisites: 01:810:101-102, placement exam, or permission of department. Not open to speakers of Spanish or native speakers of Portuguese.

Study and practice of specific areas of grammar, linguistic structure, and style. Selected reading of modern authors, with composition and class discussion.

01:810:135. PORTUGUESE FOR SPEAKERS OF SPANISH (4)

Prerequisite: Permission of department. Open only to speakers of Spanish with no prior knowledge of Portuguese. Not open to native speakers of Portuguese.

Study of Portuguese as it contrasts to Spanish. Development of speaking and listening skills. Practice in specific areas of grammar, linguistic structure, and style.

01:810:141-142. ACCELERATED PORTUGUESE (4,4)

Open only to those with no prior knowledge of Portuguese. Credit not given for these courses and 01:810:101-102 and 130.

Intensive study of Portuguese. Practice of specific areas of grammar, linguistic structure, style, and literary analysis. Selected readings of modern authors with composition and class discussions.

01:810:201. PORTUGUESE FOR NATIVE SPEAKERS (4)

Prerequisite: Placement exam or permission of department.

Study of specific areas of grammar and orthography. Development of reading skills and vocabulary building. Practice in oral communication, grammar application, and composition.

01:810:203. PORTUGUESE CONVERSATION AND COMPOSITION (4)

Prerequisites: 01:810:130 or 135 or 141-142 and permission of department. Not open to native speakers of Portuguese.

Development of oral fluency and writing skills in a variety of contexts. Conversation, vocabulary building, oral reports, fundamentals of expository writing.

01:810:309. AFRICA AND PORTUGAL: AN INTRODUCTION (3)

Prerequisite: 01:810:201 or 203, or placement exam, or permission of department.

Discussion of significant historical, social, and cultural trends in Portugal and Lusophone Africa.

01:810:310. BRAZIL: AN INTRODUCTION (3)

Prerequisite: 01:810:201 or 203, or placement exam, or permission of department.

Discussion of significant historical, social, and cultural trends in Brazil.

01:810:315,316. LITERATURES AND CULTURES OF THE PORTUGUESE-SPEAKING WORLD: AN INTRODUCTION (3,3)

Prerequisite: 01:810:201 or 203, or placement exam, or permission of department.

Reading and discussion of literary works representative of significant movements and authors of the Portuguese-speaking world.

01:810:325. ADVANCED GRAMMAR AND STYLE (3)

Prerequisite: 01:810:201 or 203, or placement exam, or permission of department.

Study of Portuguese grammatical forms and structures; vocabulary building, translation, composition.

01:810:330. LITERATURE AND CULTURE OF BRAZIL (3)

Prerequisite: 01:810:315 or 316 or permission of department.

Reading and discussion of selected works of fiction and nonfiction with emphasis on their place in the development of Brazilian literature and their relationship to Brazilian culture.

01:810:335. PORTUGAL: THE 20TH CENTURY AND BEYOND (3)

Prerequisite: 01:810:315 or 316 or permission of department.

Major writers and movements from symbolism through Fernando Pessoa to the present.

01:810:340. BRAZIL: THE 20TH CENTURY AND BEYOND (3)

Prerequisite: 01:810:315 or 316 or permission of department.

Reading and discussion of representative works of fiction, poetry, and theater from modernism to the present.

01:810:345. REALISM IN PORTUGUESE LITERATURE (3)

Prerequisite: 01:810:315 or 316 or permission of department.

Readings from the works of Eça de Queiroz, the generation of 1870, and the neorealists.

01:810:350. LITERATURES AND CULTURES OF LUSOPHONE AFRICA (3)

Prerequisite: 01:810:315 or 316 or permission of department.

Study of the literatures from African countries whose official language is Portuguese. Emphasis on 20th-century colonial and postindependence literature and theory.

01:810:417. HISTORY OF THE PORTUGUESE LANGUAGE (3)

Prerequisite: One term of 300-level Portuguese or permission of department. Course may be taught in English but knowledge of Portuguese and/or Spanish is necessary. When taught in English, course will count for the Portuguese major or minor if all written work is done in Portuguese. Course will count for the Spanish major or minor if all written work is done in Spanish.

Development of Portuguese from its origins to the present. Settlement history and non-Roman influences in Portugal. Evolution of sounds, forms, sentence structures, and words. Dialectal variation.

01:810:420. THE BRAZILIAN NARRATIVE (3)

Prerequisite: One term of 300-level literature in Portuguese or permission of department.

Development of the Brazilian novel and short story from the colonial period to the present. Emphasis on 19th and 20th centuries. Reading and analysis of representative works.

01:810:430. CAMÕES AND THE RENAISSANCE (3)

Prerequisite: One term of 300-level literature in Portuguese or permission of department.

Epic and lyric poetry of Camões and his contemporaries. Antecedents and repercussions of the Portuguese Renaissance.

01:810:440. THE PORTUGUESE-SPEAKING WORLD: MULTIPLE PERSPECTIVES (3)

Prerequisite: One term of 300-level literature in Portuguese or permission of department.

Main traits of the civilization of the Portuguese-speaking world. Evolution of its social institutions and customs. Representative literary, philosophical, and artistic works.

01:810:491,492. TOPICS IN LUSO-BRAZILIAN LITERATURE AND CULTURE (3,3)

Prerequisite: One term of 300-level literature in Portuguese or permission of department.

Topics vary by term. Consult department.

01:810:493,494. INDEPENDENT STUDY (BA,BA)

Prerequisites: One term of 300-level Portuguese and permission of department and instructor.

Independent readings under faculty supervision.

01:810:497,498. HONORS IN PORTUGUESE (BA,BA)

Prerequisites: Permission of department. Open only to seniors.

Research paper under faculty supervision.

01:810:499. READINGS IN PORTUGUESE (3)

Prerequisites: One term of 400-level literature in Portuguese and permission of department and instructor. May not be taken more than once for credit.

Independent readings under faculty supervision.

PSYCHOLOGY 830

Department of Psychology, Faculty of Arts and Sciences

Web Site: <http://psych.rutgers.edu>

Chairperson: Louis D. Matzal

Undergraduate Vice Chairperson: Arnold L. Glass

Graduate Vice Chairperson: Lee Jussim

Professors:

John Aiello, B.B.A., CUNY (City College); M.A., CUNY (Queens College); Ph.D., Michigan State

Richard Ashmore, B.A., Stanford; Ph.D., California (Los Angeles)

George E. Atwood, B.A., Arizona; M.A., Ph.D., Oregon

David Brodzinsky, B.A., Ph.D., SUNY (Buffalo)

Richard Contrada, B.A., Long Island; Ph.D., CUNY

Maurice Elias, B.A., CUNY (Queens College); M.A., Ph.D., Connecticut

Yakov M. Epstein, B.A., Pennsylvania; Ph.D., Columbia

Charles R. Gallistel, A.B., Stanford; Ph.D., Yale

Ronald J. Gendelman, B.S., Pittsburgh; M.S., Ph.D., Massachusetts

Rochel Gelman, B.A., Toronto; M.S., Ph.D., California (Los Angeles)

Arnold L. Glass, B.A., SUNY (Buffalo); Ph.D., Stanford

Leonard W. Hamilton, B.S., Iowa; Ph.D., Chicago

Sandra Lee Harris, B.A., Maryland; Ph.D., SUNY (Buffalo)

Jeannette M. Haviland-Jones, B.A., Radcliffe College; M.A., Ph.D., Michigan State

Lee Jussim, B.A., Massachusetts; Ph.D., Michigan

Eileen Kowler, B.A., CUNY (Queens College); Ph.D., Maryland

Alan M. Leslie, M.A., Edinburgh; Ph.D., Oxford

Howard Leventhal, Board of Governors Professor of Health Sciences; Ph.D., North Carolina (Chapel Hill)

Daniel M. Ogilvie, B.A., Ph.D., Harvard

Zenon Pylyshyn, Board of Governors Professor of Cognitive Science; B.Eng., McGill; M.Sc., Ph.D., Saskatchewan

Carolyn K. Rovee-Collier, B.S., Louisiana State; S.M., Ph.D., Brown

Charles F. Schmidt, B.A., Concordia Senior College (Indiana); M.A., Ph.D., Iowa

Tracey J. Shors, B.S., Alabama; Ph.D., Southern California

Judith M. Stern, B.A., CUNY (Brooklyn College); Ph.D., Rutgers (Newark)

George C. Wagner, B.A., Fairfield; M.A., Western Michigan; Ph.D., Chicago

Arlene Walker-Andrews, B.A., Texas; Ph.D., Cornell
 Mark O. West, B.S., California (Irvine); Ph.D., Wake Forest School of Medicine
 David Wilder, B.S., Pittsburgh; M.S., Ph.D., Wisconsin
 Robert L. Woolfolk, B.A., Ph.D., Texas

Associate Professors:

Gretchen Chapman, A.B., Bryn Mawr College; Ph.D., Pennsylvania
 Jacob Feldman, A.B., Harvard; M.S., Ph.D., Massachusetts Institute of Technology
 Judith A. Hudson, B.A., Trinity College; Ph.D., CUNY
 Carlton T. James, B.A., Texas; Ph.D., Indiana
 Robert A. Karlin, B.A., Harvard; M.A., Yale; Ph.D., Rutgers
 Deirdre A. Kramer, B.A., Davidson College; Ph.D., Temple
 Michael Leyton, B.S.C., Warwick (England); Ph.D., California (Berkeley)
 Louis D. Matzel, B.A., American; M.A., George Mason; Ph.D., SUNY (Binghamton)
 Timothy A. Otto, B.A., Bowling Green State; M.A., Ph.D., New Hampshire
 Laurie A. Rudman, B.A., Ph.D., Minnesota
 Karin J. Stromswold, B.A., Harvard; Ph.D., Massachusetts Institute of Technology; M.D., Harvard
 Arthur Tomie, B.A., Southern California; M.A., Ph.D., Colorado
 David S. Vicario, B.A., New Hampshire; Ph.D., Rockefeller

Assistant Professors:

Amy Cuddy, B.A., Colorado (Boulder); M.A., Ph.D., Princeton
 Michael A. Friedman, B.A., Pennsylvania; M.S., Ph.D., Yale
 Alexander Kusnecov, B.A., Ph.D., Newcastle (New South Wales)
 Jan Mohlman, B.A., California (Los Angeles); M.S., Ph.D., Oregon
 Diana Sanchez, B.A., Bard College; Ph.D., Michigan
 Manish Singh, B.A., Delhi; M.A., Ph.D., California (Irvine)

Major Requirements

The following requirements must be met before declaring the major in psychology:

1. Completion of 01:830:101 General Psychology with a grade of C or better.
2. Completion of 01:830:200 Quantitative Methods in Psychology with a grade of C or better.

The following requirements must be met to complete a major in psychology:

1. Completion of six of the seven core courses in psychology. The seven core courses are 01:830:301 Sensation and Perception, 01:830:305 Cognition, 01:830:311 Conditioning and Learning, 01:830:313 Physiological Psychology, 01:830:321 Social Psychology, 01:830:331 Infant and Child Development, and 01:830:340 Abnormal Psychology.
2. Completion of one course designated as a laboratory course.
3. Completion of four additional 3- or 4-credit elective courses at the 200 level or higher. No more than one of these four additional courses may be a nonclassroom course such as fieldwork, internship, or research. No college honors courses (except those with 830 subject index) may count toward this requirement.
4. Completion of precalculus (01:640:112 or 115) or tested placement into calculus. All laboratory courses in psychology have precalculus as a prerequisite.
5. A cumulative grade-point average of at least 2.0 in all psychology (01:830) courses including, if available, up to 6 credits of Honors Research in Psychology or up to 3 credits of other nonclassroom credits in psychology.
6. A minimum of 38 credits in psychology (830 subject index) must be completed.
7. At least seven of the 3- or 4-credit courses counting toward the major must be taken at Rutgers–New Brunswick / Piscataway.

Membership in the Psychology Club is open to all majors. Information and applications may be obtained online at <http://www.psychology.rutgers.edu>.

Honors Major Requirements

Students who maintain an excellent academic record may wish to pursue the Honors Major in Psychology. This option is an enhancement of the standard major and requires, in addition to the minimum requirements of the standard major, the following:

1. A cumulative grade-point average of at least 3.4 in all psychology (830 subject index) courses including 6 credits of Honors Research in Psychology.
2. An overall grade-point average of 3.0 or higher.
3. A minimum of 45 credits in psychology (830 subject index). Students in the honors major are strongly encouraged to get involved in research during their junior year.
4. At least nine of the 3- or 4-credit courses counting toward the Honors Major must be taken at Rutgers–New Brunswick / Piscataway (01:830).
5. Satisfactory completion of a special 1-credit Honors Research Seminar in Psychology * (01:830:490) normally completed during the fall term of the final year.
6. Successful completion of Honors Research in Psychology (01:830:497) taken during each of the final two terms and full participation in the departmental honors program. (As an alternative to 01:830:497, students who are sponsored by departmental faculty and are participating in the Mabel Smith Douglass Honors Program, the Paul Robeson Scholars Project, the University College Honors Program, or the Henry Rutgers Scholars Program may substitute 6 credits in these courses for 01:830:497 toward the 45-credit requirement for the honors program in psychology.)

Upon successful completion of all of these requirements and upon the recommendation of the Psychology Department Honors Committee, the student will earn the B.A. with Honors in Psychology and the transcript will designate the student as a Research Scholar in Psychology.

The department also has an active chapter of Psi Chi, the national honor society in psychology.

Specializations

In addition to the general psychology major, students may have particular interests for graduate school, or specialized aspects of psychology such as: (1) Behavioral Neuroscience, (2) Clinical Psychology, (3) Cognitive Psychology, (4) Developmental Psychology, (5) Health Psychology, and (6) Social Psychology.

* The purpose of this seminar will be to: (a) introduce the honors students to each other; (b) assist students in their honors projects; (c) assist students with future plans for graduate school or jobs; (d) assist students in preparing for the GRE, applying for NSF Fellowships, scholarships, and other awards; (e) train students to make formal presentations using PowerPoint and other software; and (f) provide enhanced content through guest speakers that may include faculty, graduate students, or fellow honors students. This seminar will be organized and supervised by the chair of the Honors Committee or another faculty member designated by the chair. Mabel Smith Douglass, Paul Robeson, or Henry Rutgers scholars may not have room in their schedules for the additional credit, in which case, they could elect to take the seminar for E credits or NC.

Students with one of these special interests may wish to select their electives from specific clusters within psychology and related programs. For additional information, see our web site <http://www.psychology.rutgers.edu>.

Minor Requirements

A psychology minor consists of at least six courses of 3 or more credits, including 01:830:101 General Psychology, with a grade of C or better. At least three of the six courses must be taken in the Rutgers–New Brunswick/Piscataway psychology program (01:830), and transfer from county or community colleges will be restricted to no more than general psychology and two additional electives. Courses from non-psychology departments may not be applied toward the minor. No more than one of the six required courses may be a nonclassroom course such as fieldwork, internship, or research. No college honors courses may count toward this requirement. A GPA of 2.0 or better is required for all 01:830 courses.

Transfer Students

Transfer students who wish to major in psychology must take at least seven in-class psychology courses at Rutgers–New Brunswick/Piscataway; minors must take at least three courses at the New Brunswick/Piscataway campus. Fieldwork, research in psychology, internship, and honors courses do not count toward meeting this requirement. Students transferring from two-year colleges may transfer General Psychology, Quantitative Methods, and no more than two additional courses to be counted toward the major. Transfer courses that do not meet for at least four calendar weeks, in classroom, on college campuses may not be counted toward the major or minor.

Behavioral Pharmacology Certificate Program

The certificate program in behavioral pharmacology is offered by Rutgers' Department of Psychology at New Brunswick/Piscataway. The program's primary goals are to provide undergraduate students with an integrated academic and practical background in psychopharmacology and the behavioral sciences that will enhance their eligibility for employment in the pharmaceutical, biotechnology, and/or health-related industries. The certificate program provides a direct service to the diverse social and economic needs of New Jersey and serves the interests and needs of students at Rutgers. In general, the program will produce a well-educated and experienced workforce that will be attractive to employers in various sectors of the biomedical research community. Applications for the program and the requirements are available from the Department of Psychology. Professor George Wagner is the director of the program (gcwagner@rci.rutgers.edu).

Student Qualifications for Program Entry

1. Junior or senior year standing.
2. Completion of General Psychology (01:830:101) and Quantitative Methods (01:830:200) with grades of C or better.
3. At least a B (3.0 to 4.0) average in the major.
4. A letter of support from your faculty research adviser.
5. The certificate program committee evaluates each application and selects interns based on academic excellence, relevant experience, and a personal statement outlining career goals.

Requirements for Completion of the Program

Students are required to complete three of the following four courses with a grade of B or better:

- 01:830:311 Conditioning and Learning (3)
- 01:830:313 Physiological Psychology (3)
- 01:830:363 Behavioral Pharmacology (3)
- 01:830:412 Neuropsychopharmacology (3)

Students also must complete two terms of research for a minimum of 6 credits in participating faculty members' laboratories. To complete this requirement, the student may take 01:830:495,496 Research in Psychology, or, if qualified, 01:830:497,498 Honors Research in Psychology.

In addition, completion of a summer internship in a participating pharmaceutical or biotechnology company is required. Students become eligible for summer internships after they have completed at least one term of independent study in the laboratory of a Rutgers faculty member who participates in the certificate program. The major adviser, the company sponsor, and the certificate program committee will jointly determine a student's placement in a pharmaceutical company.

Courses

01:830:101. GENERAL PSYCHOLOGY (3)

Survey of main areas of contemporary psychology.

01:830:200. QUANTITATIVE METHODS IN PSYCHOLOGY (4)

One term of college-level mathematics recommended.

Quantitative methods used in psychological research. Regular exercises required.

01:830:201. PRINCIPLES OF COGNITIVE SCIENCE (3)

Prerequisite: 01:830:101.

Introduction to the field of human cognition, surveying methods, concepts, findings, and problems in perception, learning, memory, thinking, problem solving, psycholinguistics, and development.

01:830:211. PRINCIPLES OF PSYCHOBIOLOGY (3)

Prerequisite: 01:830:101. Not to be taken with or after 01:830:313.

Introduction to the relationship between brain and behavior. Topics such as structural bases of perceptions, learning, emotions, and abnormal behaviors.

01:830:271. PSYCHOLOGY OF THE FAMILY (3)

Prerequisite: 01:830:101.

Life-span couple development, parent-child relationships, and extended family relations. Effects of family environments on adjustment.

01:830:272. DRUGS AND HUMAN BEHAVIOR (3)

Prerequisite: 01:830:101.

Drug classification; contexts of drug usage; effects of various drugs; analysis of drug action in the central nervous system; aspects of "human nature" revealed by drug usage.

01:830:300. RESEARCH METHODS IN PSYCHOLOGY (3)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:101, 200. Fulfills laboratory course requirement but not a 300/400-level course requirement.

Logic and design of behavioral experiments; analysis and interpretation of data; writing of formal laboratory reports.

01:830:301. SENSATION AND PERCEPTION (3)

Prerequisite: 01:830:101.

Principles of sensory processes in vision, audition, and other modalities, and of the perception of objects and events.

PSYCHOLOGY

01:830:302. SENSATION AND PERCEPTION LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200.

Pre- or corequisite: 01:830:301.

Experiments and written reports on a variety of topics in sensation and perception. Training in scientific method with respect to data analysis, experimental methods, and research design.

01:830:303. MEMORY (3)

Prerequisite: 01:830:101.

Principles of acquisition, retention, recall, and forgetting of verbal and nonverbal material.

01:830:304. MEMORY LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200.

Corequisite: 01:830:303.

Experiments and written reports on a variety of topics in learning and memory. Stresses training in scientific method with respect to data analysis, experimental methods, and research design.

01:830:305. COGNITION (3)

Prerequisite: 01:830:101 or permission of instructor.

Cognitive processes, including thinking, language, and memory and their development.

01:830:306. COGNITION LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200.

Pre- or corequisite: 01:830:305.

Experiments and written reports on cognitive processes, including thinking, language, and memory.

01:830:307. PERCEPTION IN COGNITIVE SCIENCE (3)

Approaches to visual perception that emphasize reasoning about stimulus properties (shading, texture, lines, movement, etc.) that give information about the structure of the environment.

01:830:308. REASONING, PROBLEM SOLVING, AND DECISION MAKING (3)

Prerequisite: 01:830:101.

Higher level cognitive processes including reasoning, problem solving, hypothesis testing, judgment, and decision making.

01:830:311. CONDITIONING AND LEARNING (3)

Prerequisite: 01:830:101.

Topics include habituation, sensitization, associative learning, rule and category learning. Data derived from animal and human research.

01:830:312. CONDITIONING AND LEARNING LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:101, 200.

Pre- or corequisite: 01:830:311.

Learning experiments conducted with animals.

01:830:313. PHYSIOLOGICAL PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Physiological determinants and mechanisms of behavior.

01:830:314. PHYSIOLOGICAL PSYCHOLOGY LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200 or permission of instructor. *Pre- or corequisite:* 01:830:313.

Experiments with animals demonstrating or testing principles of physiology.

01:830:315. COMPARATIVE PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Evolution of behavior.

01:830:316. COMPARATIVE PSYCHOLOGY LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:101, 200. *Pre- or corequisite:* 01:830:315.

Experiments designed and conducted with animals to demonstrate or test principles of comparative psychology.

01:830:321. SOCIAL PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Social aspects of behavior. Topics such as socialization, communication, small-group interaction, attitudes and attitude change, social perception, and social conflict.

01:830:323. RESEARCH METHODS IN SOCIAL PSYCHOLOGY (4)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:101, 200, 321. *Fulfills laboratory course requirement and one of the 300/400 level course requirements.*

Research methods for laboratory and field studies in social psychology. Logic and design of behavioral experiments; analysis and interpretation of data; writing of formal laboratory reports.

01:830:326. SMALL GROUPS (3)

Prerequisites: 01:830:321 and permission of instructor.

Empirical findings and theories drawn from research on small-group behavior, group development, leadership, conformity, deviation, and intergroup relations.

01:830:327. SMALL GROUPS LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200.

Corequisite: 01:830:326.

Laboratory and field studies in small-group behavior.

01:830:330. DEVELOPMENTAL PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Survey of life-span human development covering prenatal, infant, child, adolescent, and adult periods.

01:830:331. INFANT AND CHILD DEVELOPMENT (3)

Prerequisite: 01:830:101.

Review of psychological theory and research on perceptual, cognitive, social, and personal growth during infancy and childhood.

01:830:332. INFANT AND CHILD DEVELOPMENT LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200.

Corequisite: 01:830:331 or permission of instructor.

Experiments and written reports based on observations of children in a school setting, interviews, application of research protocols, and existing databases including videotapes.

01:830:333. ADOLESCENT DEVELOPMENT (3)

Prerequisite: 01:830:101 or permission of instructor.

Review of theory and research on adolescent growth, cognition, personality, and social development.

01:830:335. ADULT DEVELOPMENT AND AGING (3)

Prerequisite: 01:830:101.

Review of psychological theory and research on cognitive, personality, and interpersonal development.

01:830:338. PERSONALITY PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Major personality systems. Personality structure, dynamics, development, and assessment.

01:830:340. ABNORMAL PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Survey of etiology, diagnosis, and treatment of psychopathology.

01:830:341. RESEARCH IN PERSONALITY (3)

Prerequisites: 01:830:101, 338. *Corequisite:* 01:830:342.

Research approaches to major issues in personality psychology.

01:830:342. RESEARCH IN PERSONALITY LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200.

Corequisite: 01:830:341.

Research projects designed and conducted in personality psychology. Participation in ongoing research programs.

01:830:346. ATYPICAL DEVELOPMENT IN CHILDHOOD AND ADOLESCENCE (3)

Prerequisites: 01:830:101 and one of the following: 01:830:330, 331, 333, 335, or 340.

Origin, diagnosis, and treatment of deviations from normal physical, intellectual, psychological, and social development.

01:830:351. PSYCHOLOGY OF LANGUAGE (3)

Prerequisite: 01:830:101. Recommended: 01:615:101 or 201. Credit not given for both this course and 01:615:371.

Production, perception, and acquisition of language at the level of sound (phonology), words (morphology and the lexicon), and grammar (syntax).

01:830:352. PSYCHOLOGY OF LANGUAGE LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200. Pre- or corequisite: 01:830:351.

Covers phonology and speech perception, morphology, lexical change and access, syntax and sentence processing, language acquisition, neurolinguistics, genetics, and evolution of language.

01:830:353. LANGUAGE ACQUISITION (3)

Prerequisite: 01:830:101. Recommended: 01:615:101, 201, 441, or 01:830:351. Credit not given for both this course and 01:615:373.

Empirical and theoretical studies of the acquisition of syntax, morphology, and phonology; word learning, the neural bases of language acquisition, language disorders, and learnability theory.

01:830:361. DEVELOPMENTAL PSYCHOBIOLOGY (3)

Prerequisite: 01:830:101.

Growth, maturation, and development of behavior with emphasis on physiological mechanisms and early experience.

01:830:362. PSYCHOLOGY OF SEX AND GENDER (3)

Prerequisite: 01:830:101. Credit not given for both this course and 01:830:381; 01:988:362, 381.

Biological, psychological, and cultural determinants in sex differences in behavior with emphasis on humans. Sexual behavior, aggression, personality, intelligence, and social roles.

01:830:363. BEHAVIORAL PHARMACOLOGY (3)

Prerequisites: 01:830:101; 211 or 313.

Effects of drugs on physiological and behavioral mechanisms.

01:830:364. MOTIVATION AND EMOTION (3)

Prerequisite: 01:830:101.

Psychological and physiological aspects of motivation and emotion in human and animal behavior.

01:830:365. HORMONES AND BEHAVIOR (3)

Prerequisite: 01:830:101. Recommended: One year of general biology.

Relationship between hormones, the nervous system, and behavior; sexual, parental, aggressive, and ingestive behaviors; fear, coping, learning, and memory. Emphasis on higher vertebrates, including humans.

01:830:366. HORMONES AND BEHAVIOR LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200. Pre- or corequisite: 01:830:365.

Laboratory experiments in hormones and behavior.

01:830:371. GROUP DYNAMICS (3)

Prerequisites: 01:830:101 and written permission of instructor.

Basic aspects of group interaction. Participation in experiential group. Focus on variety of topics related to group interaction, development, and change.

01:830:372. PSYCHOLOGICAL APPROACHES TO SOCIAL PROBLEMS (3)

Prerequisite: 01:830:321.

How social problems are defined. Theories and methods used to study social problems such as crowding, poverty, education, and race relations.

01:830:373. ORGANIZATIONAL AND PERSONNEL PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Social psychological research and theory applied to industrial problems. Personnel selection, job satisfaction and morale, organizational effectiveness, group and intergroup relationships, and communication in work settings.

01:830:375. PREJUDICE AND CONFLICT (3)

Prerequisites: 01:830:101 and one other course in psychology.

Social psychology of development and consequences of stereotypes and attitudes toward outgroups; special emphasis on interactions within the classroom.

01:830:376. PSYCHOLOGY AND AFRICAN-AMERICAN EXPERIENCE (3)

Prerequisite: 01:830:101.

Examination of selected psychological principles and concepts as they pertain to the African-American experience. Critical evaluation of psychological research involving race comparisons.

01:830:377. HEALTH PSYCHOLOGY (3)

Prerequisite: 01:830:101.

Relationships between behavior and health. Stress, personality, and lifestyle as disease causes; modifying high-risk behaviors; coping with serious illness.

01:830:381. PSYCHOLOGY OF WOMEN (3)

Prerequisite: 01:830:101. Credit not given for both this course and 01:830:362; 01:988:362, 381.

Theories of feminine psychology; physiological and cultural sex differences as they affect motivation; personality; social and sexual adjustment; and maladjustment.

01:830:393. SYSTEMS OF PSYCHOTHERAPY (3)

Prerequisite: 01:830:340.

Examination of clinical, empirical, and theoretical foundations of therapeutic intervention.

01:830:394. COMMUNITY PSYCHOLOGY AND COMMUNITY MENTAL HEALTH (3)

Prerequisite: 01:830:321, 323, or 340. Open only to juniors and seniors.

Influence of social and community forces on development, treatment, and prevention; applications to community problems.

01:830:395. INTERNSHIP IN HUMAN FACTORS RESEARCH (6)

Prerequisites: 01:830:101 and permission of instructor. Open only to juniors and seniors.

Fully supervised participation in research in an industrial environment, involving the application of psychology to the design of complex computer systems.

01:830:396,397. FIELDWORK (3,3)

Prerequisite: Contact department for prerequisites of sections offered.

Faculty-supervised placements in human service centers and agencies, both on and off campus. Includes regular meetings with faculty. Academic reading and report-writing assignments required.

01:830:398. SERVICE-LEARNING INTERNSHIP (1)

Corequisite: Must be taken in conjunction with a designated CASE (Citizenship and Service Education) course offered in the Department of Psychology.

One-credit community service placement in psychology-related field setting.

01:830:401. ADVANCED TOPICS IN HUMAN COGNITION (3)

Prerequisite: 01:830:101; contact department for prerequisites of sections offered.

Multisectioned course with each section investigating advanced problems and issues in human cognition. Contact department for titles, descriptions, and requirements of sections.

01:830:411. ADVANCED TOPICS IN PSYCHOBIOLOGY (3)

Prerequisite: 01:830:101; contact department for prerequisites of sections offered.

Multisectioned course with each section investigating advanced problems and issues in psychobiology. Contact department for titles, descriptions, and requirements of sections.

PUERTO RICAN AND HISPANIC CARIBBEAN STUDIES

01:830:412. NEUROPSYCHOPHARMACOLOGY (3)

Prerequisites: 01:830:101, 211, or 313.

Effects of drugs on behavior. Emphasis on central nervous system mechanisms and clinical psychopharmacology.

01:830:413. NEUROPSYCHOPHARMACOLOGY LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200 or permission of instructor. *Pre- or corequisite:* 01:830:412.

Research on the effect of drugs on animal behavior.

01:830:421. ADVANCED TOPICS IN SOCIAL PSYCHOLOGY (3)

Prerequisite: 01:830:101; contact department for prerequisites of sections offered.

Multisectioned course with each section investigating advanced problems and issues in social psychology. Contact department for titles, descriptions, and requirements of sections.

01:830:431. ADVANCED TOPICS IN DEVELOPMENTAL PSYCHOLOGY (3)

Prerequisite: 01:830:101; contact department for prerequisites of sections offered.

Multisectioned course with each section investigating advanced problems and issues in developmental psychology. Contact department for titles, descriptions, and requirements of sections.

01:830:441. ADVANCED TOPICS IN PERSONALITY PSYCHOLOGY (3)

Prerequisite: 01:830:101; contact department for prerequisites of sections offered.

Multisectioned course with each section investigating advanced problems and issues in personality psychology. Contact department for titles, descriptions, and requirements of sections.

01:830:451. ADVANCED TOPICS IN CLINICAL AND ABNORMAL PSYCHOLOGY (3)

Prerequisite: 01:830:101; contact department for prerequisites of sections offered.

Multisectioned course with each section investigating advanced problems and issues in clinical and abnormal psychology. Contact department for titles, descriptions, and requirements of sections.

01:830:470. HISTORY OF PSYCHOLOGY (3)

Prerequisites: Six courses in psychology. Open only to juniors and seniors.

Philosophical and scientific antecedents of modern psychology. Schools of thought in psychology including structuralism, functionalism, behaviorism, Gestalt, and psychoanalysis. Recurrent issues in the history of psychology.

01:830:472. COGNITION AND COMPUTATION (3)

Prerequisites: 01:830:101 and permission of instructor.

Intelligent behavior as a process involving creation and modification of symbolic structures; examples from psychology and artificial-intelligence research.

01:830:473. COGNITION AND COMPUTATION LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus; 01:830:200 or permission of instructor. *Corequisite:* 01:830:472.

Projects involving the use and evaluation of computational models of cognition.

01:830:474. PSYCHOLOGICAL TESTS AND MEASUREMENTS (3)

Prerequisites: 01:830:101, 200, or permission of instructor.

Corequisite: 01:830:475.

Theoretical, developmental, and methodological bases of psychological tests. Includes introduction to selected standard tests of intelligence and personality and their administration procedures.

01:830:475. PSYCHOLOGICAL TESTS AND MEASUREMENTS LABORATORY (1)

Prerequisites: 01:640:112, 115, or tested placement in calculus. *Corequisite:* 01:830:474.

Research projects using various assessment techniques.

01:830:480. TOPICS IN VISUAL PERCEPTION (3)

Prerequisite: Permission of instructor.

Current theories of human visual perception and its physiological correlates. Analogies to auditory perception and parallels with computer vision.

01:830:490. HONORS RESEARCH SEMINAR (1)

Prerequisite: 01:830:101. Open only to seniors in the departmental honors program.

The seminar will assist students in their honor's research project and their preparation for graduate school or jobs.

01:830:493. INTERNSHIP IN APPLIED AND COMMUNITY PSYCHOLOGY (BA)

Prerequisites: At least five courses in psychology and permission of instructor.

Corequisite: 01:830:494. Open only to junior and senior psychology majors.

Supervised full-time involvement in service settings, providing opportunity to apply knowledge in developmental, community, and clinical psychology; may include service delivery, planning, evaluation research.

01:830:494. INTERNSHIP SEMINAR IN APPLIED AND COMMUNITY PSYCHOLOGY (3)

Corequisite: 01:830:493.

With fellow interns, study dynamics of service organizations and forces influencing how professionals function; group and individual supervision around problems and issues arising from internship experiences.

01:830:495,496. RESEARCH IN PSYCHOLOGY (BA,BA)

Prerequisites: Satisfactory completion of application form and permission of instructor. May be taken more than once.

Supervised research. Written agreement with the supervisor required. May include laboratory/library research. Final written report required.

01:830:497,498. HONORS RESEARCH IN PSYCHOLOGY (3,3)

Prerequisite: Permission of department. Open only to seniors with 3.4 or

better cumulative grade-point average in courses counting toward the major.

Honors Research in Psychology (either 01:830:497 or 498); does not count as a laboratory course.

Individual research projects to be written as honors thesis.

PUBLIC HEALTH

(See the Edward J. Bloustein School
of Planning and Public Policy section)

PUERTO RICAN AND HISPANIC CARIBBEAN STUDIES 836

Department of Puerto Rican and Hispanic Caribbean
Studies, Faculty of Arts and Sciences

Web Site: <http://latcar.rutgers.edu>

Acting Chairperson: Asela R. Laguna

Professor:

Asela R. Laguna, B.A., Puerto Rico; M.A., Ph.D., Illinois (Urbana)

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Ismael Garcia Colon, B.A., Puerto Rico; M.A., Ph.D., Connecticut (Storrs)

The Department of Puerto Rican and Hispanic Caribbean Studies offers an interdisciplinary program of studies that examines the diverse political, social, and cultural histories of the Spanish-speaking societies of the Caribbean as well as Latino communities in the United States. Using a comparative approach, the curriculum focuses on the formation and evolution of the peoples and societies of the region.

Courses examine the gender, racial, class, and cultural dimensions of the migration experience of Caribbean peoples and the reformulation of national identities.

The curriculum fosters critical thinking about how knowledge is created, different methods and modes of analysis, and the limitations of traditional disciplinary approaches. It does so while developing competencies in research, analysis, and written as well as oral presentations.

Major Requirements

The major consists of 11 courses. The following six courses are required as the core curriculum:

- 01:836:101 Formation of Hispanic Caribbean Identities (3)
- 01:836:205 History of the Hispanic Caribbean (3)
- 01:836:210 Gender across Cultures (3)
- 01:836:303 Language and U.S. Latino/a Culture (3) *or* 01:836:310 Migration and Community: The Latino Experience (3)
- 01:836:328 Conflict and Change in the Caribbean (3)
- 01:836:497 Seminar in Puerto Rican and Hispanic Caribbean Studies (3)

Students are required to take an additional five courses, four of which must be at the 300 or 400 level. With the department's approval, students may substitute appropriate courses at the 300 or 400 level that are offered by other departments in the Faculty of Arts and Sciences. A maximum of two independent study courses may be used to satisfy the requirements of the major. Independent study courses may not be substituted for the six required core courses. Only grades of C or higher will count toward the major requirements.

Minor Requirements

A minor in Puerto Rican and Hispanic Caribbean studies requires successful completion of six 3-credit courses of which three courses must be at the 300 level or above. Only one independent study course can be counted toward the minor. Only grades of C or higher will count toward the minor requirements.

Honors Program

The honors program in Puerto Rican and Hispanic Caribbean studies enables students to work closely with a faculty member to develop and complete an individualized research project.

At the end of the junior year, students with a cumulative grade-point average of 3.0 or better and averages of 3.4 or better in courses taken for the major are eligible to apply to the chairperson of the department for admission to the honors program. Students must discuss their plans with the department chair at this time, who will recommend the appropriate faculty to serve as the honors project director.

Honors students must enroll in senior seminar 01:836:497 during the fall term. At the end of the term, the student must submit a detailed research proposal to the project director. During the spring term of the senior year, the student completes a substantial research project and prepares a paper. Upon approval by the project director, the department confers honors. The project director will read the completed project and recommend to the department chair whether to confer department honors.

Courses

01:836:101. FORMATION OF HISPANIC CARIBBEAN IDENTITIES (3)

Introduction to interdisciplinary study of Caribbean and Latino communities. History of migration and cultural formation; focus on changing national, ethnic, racial, and gendered identities.

01:836:110. U.S. AND CARIBBEAN 20TH CENTURY (3)

Survey of the 20th-century development of the Spanish-speaking Caribbean in the context of U.S. expansion and intervention in the region.

01:836:150. THE LATIN AMERICAN WOMAN (3)

Credit not given for both this course and 01:988:150.

Analysis of women's roles within the family structure in the Caribbean and the United States. Understanding of the double standards imposed on men and women. The impact of socialization and the development of a critical consciousness.

01:836:200. PUERTO RICAN CULTURAL HERITAGE (3)

Origin and development of Puerto Rican culture on the island and in the United States. Selective focus on the family, religion, morality, race relations, sex roles, and institutions of authority.

01:836:201. AFRICAN BELIEF SYSTEMS AND THE LATINO COMMUNITY (3)

Credit not given for this course and 01:014:201.

Historical examination of ancestor worship, Santería (Cuba), Vodun (Santo Domingo), Espiritismo (Puerto Rico), and other African-based belief systems. Formation from African to slave societies and use in contemporary period.

01:836:203. MUSICAL EXPRESSION OF LATIN AMERICA (3)

Contemporary history of Puerto Ricans, Chicanos, and other Latin Americans through the legacy of song.

01:836:205. HISTORY OF THE HISPANIC CARIBBEAN (3)

Overview of the Spanish-speaking Caribbean. Focus on slavery, colonial relationships, politics, economy, U.S. relations, migration during 20th century.

01:836:210. GENDER ACROSS CULTURES (3)

Credit not given for both this course and 01:988:210.

Social construction of gender in Puerto Rico, Cuba, and Dominican Republic. Impact of migration and comparisons with gender roles in the United States.

01:836:220. ORIGINS AND DEVELOPMENT OF PUERTO RICAN POLITICAL PARTIES (3)

Development of political parties and organizations in Puerto Rico since the 19th century. Political struggles in a modern colonial context. The independence movement and Puerto Rico's political status options.

01:836:225. CARIBBEAN CINEMA (3)

Examination of the outstanding films produced in the Hispanic Caribbean region.

01:836:229. CARIBBEAN (3)

Credit not given for both this course and 01:508:270.

Introductory survey of Caribbean history emphasizing the common aspects (foreign intervention, slavery, primary export economies) of the culturally diversified countries of the area.

01:836:231. SOCIAL CLASS DEVELOPMENT IN PUERTO RICO (3)

Theories of social class formation and the process of social change examined through the historical development of social classes in Puerto Rico.

01:836:250. THE PUERTO RICAN EDUCATIONAL EXPERIENCE (3)

Sociohistorical development of the Puerto Rican experience with the North American educational system in Puerto Rico and the United States.

01:836:266. PUERTO RICAN LITERATURE (3)

Credit not given for both this course and 01:940:331,332.

Study of the development of Puerto Rican literature from the Spanish colonial period to the present. Emphasis on major writers: Pales Matos, Corretjer, Marquez, Gonzalez, Soto, Diaz, Valcarcel, Sanchez, and Blanco.

01:836:300. SLAVERY IN THE CARIBBEAN (3)

Analysis of different institutions of slavery in the Caribbean and the rise of the plantation societies. Investigating the effects on Europe and the western hemisphere and its legacy.

01:836:301. HISPANIC COMMUNITIES IN THE UNITED STATES (3)

Survey of the historical development; cultural and political expressions; and social reality of the Chicano, Cuban, Dominican, and Puerto Rican communities in the United States.

01:836:302. DOMINICAN IDENTITY FORMATION (3)

Examination of formation of Dominican identity across time and place; focus on social class and issues of race, gender, and sexuality.

01:836:303. LANGUAGE AND U.S. LATINO/A CULTURE (3)

Credit not given for both this course and 01:940:303.

Interrelation of diverse linguistic traits and practices in the production of U.S. Latino/a culture. Emphasis on Chicano/a, Mexican-American, Nuyorican/Puerto Rican, Dominican-American, Cuban, and Cuban-American contributions, in the context of historical and political processes.

01:836:304. RESEARCH METHODS AND ANALYSIS IN LATINA/O STUDIES (3)

Prerequisite: 01:836:101.

Introduction to qualitative and quantitative or ethnographic, archival, oral history, and quantitative research methods in Latina/o studies.

01:836:305. INTRODUCTION TO PUERTO RICAN AND CARIBBEAN FOLKLORE (3)

Artwork, music, and folk religion as integrating forces in the evolution of oral traditions and legends. Use of ethnography and literature.

01:836:306. QUEER CULTURE IN THE HISPANIC CARIBBEAN AND ITS DIASPORA (3)

Credit not given for both this course and 01:988:304.

Select cultural texts (film, literature, and performance) from the Hispanic Caribbean (Cuba, Dominican Republic, Puerto Rico), and its diaspora. Includes issues of bisexuality, lesbianism, homosexuality, transvestism, and transgenderness.

01:836:309. THE POLITICS OF PUERTO RICAN DEVELOPMENT (3)

Credit not given for both this course and 01:790:309.

Analysis of the relationship between political and economic development in the 20th century; the changing nature of U.S./Puerto Rican relations; formation of the colonial state; and the statehood and independence movements.

01:836:310. MIGRATION AND COMMUNITY: THE LATINO EXPERIENCE (3)

Development of Latino communities in the United States, 1840s to present. Impact of U.S. foreign policy, economic and political conditions in countries of origin and the United States.

01:836:311. PUERTO RICAN MIGRATION TO THE UNITED STATES (3)

Historical evolution of the movement of Puerto Ricans between the island and the United States examined within the colonial context and the international circulation of workers.

01:836:315. POETRY OF PROTEST IN LATIN AMERICA (3)

Poetry as a vehicle for inciting political or social activism; works by Neruda, Martí, and others.

01:836:322. LATINAS: MIGRATION, WORK, AND FAMILY (3)

Credit not given for both this course and 01:988:322.

Interaction of work and family in Latinas' migration to the United States. Focus on reasons for migration, incorporation into U.S. society, and questions of continuity and change.

01:836:323. U.S. LATINA FEMINISTS (3)

Overview of diverse perspectives of U.S. Latina feminists based on their multiple positions as racialized ethnic women.

01:836:325. U.S. FOREIGN POLICY AND THE CARIBBEAN (3)

Implementation of U.S. foreign policy (diplomatic, political, military, and economic) toward the Caribbean region during the 20th century.

01:836:328. CONFLICT AND CHANGE IN THE CARIBBEAN (3)

Credit not given for both this course and 01:790:328.

Social development and political economy of the Caribbean in the context of its integration and membership in the capitalist world system. Interimperialist conflict and rivalry and their impact on the development of West Indian societies. The Caribbean as a microcosm of the third world.

01:836:329. LATINO POLITICS IN THE UNITED STATES (3)

Credit not given for both this course and 01:790:329.

Political organization of Latino communities in the northeastern United States since World War II. Role of Latinos in shaping U.S. domestic and foreign policy, the impact of immigration and language policies on political organization.

01:836:333. CARIBBEAN RELIGION (3)

Credit not given for both this course and 01:840:333.

Examines the history and role of the diverse religious components of the Caribbean basin from indigenous practices to Catholicism, Protestantism, Judaism, and the emergence of African belief systems such as Vodou, Santeria, and Rastafarianism from the 18th century to the present.

01:836:338. HAITI AND THE HISPANIC CARIBBEAN (3)

Examines the political development of Haiti in a comparative historical perspective. Emphasizes the interplay of domestic and international political forces in shaping modern Haiti.

01:836:339. CONTEMPORARY DOMINICAN POLITICS AND SOCIETY (3)

Credit not given for both this course and 01:790:339.

Examination of Dominican politics, economy, and society from the start of the Trujillo era (1930) to the present. Focus on the authoritarian legacy of the Trujillo dictatorship, relations with the United States, electoral politics in the post-Trujillo period, and recurring trends of caudilloism, militarism, clientelism, and personalism in Dominican society.

01:836:340. RELIGION AND THE HISPANIC COMMUNITY (3)

Sociological comparison of religious institutions and practices under Spanish and U.S. influence. The role of religion in Caribbean migrations and processes of adaption in the United States.

01:836:354,356. INDEPENDENT STUDY (3,3)

Prerequisite: Permission of instructor. Open only to junior and senior majors and minors in Puerto Rican and Hispanic Caribbean studies.

01:836:360. CULTURE AND SOCIETY IN PUERTO RICO AND THE SPANISH-SPEAKING CARIBBEAN (3)

Understanding the evolution of culture and society in Puerto Rico, the Dominican Republic, and Cuba. Emphasis on the present-day political mobilization that contributes to national consciousness.

01:836:370. LAW AND THE LATINO COMMUNITY (3)

Focus on the legal struggle of the Latino community to achieve equality in the United States. Analyzes organization of migrant workers, immigration laws, bilingual education, and the Latino struggle for equal representation in government.

01:836:371. HISTORY OF PUERTO RICO (3)

Credit not given for both this course and 01:508:371.

Examination from pre-Columbian time to present. Focus on Spanish colonial policy, slavery and land tenure systems, emergence of national identity, U.S. invasion and rapid economic changes, and population control and migration.

01:836:372. HISTORY OF DOMINICAN REPUBLIC (3)

Credit not given for both this course and 01:508:372.

From French invasion of Hispaniola to present. Role in Spanish empire, U.S. control in transition to sugar economy, Trujillismo, U.S. invasion in 1965, and impact of migration on society.

01:836:375. CONSTITUTIONAL RELATIONS BETWEEN PUERTO RICO AND THE UNITED STATES (3)

Political, social, and economic relations between the United States and Puerto Rico through analysis of the Foraker Act, Jones Act, and Law 600.

01:836:385. SOCIAL CHANGE IN THE CARIBBEAN (3)

Examines how the formation of Caribbean societies was influenced by the development of capitalism on a world scale. Focus on the political struggles of Caribbean peoples to create alternative development models.

01:836:390. THE HISTORY OF CUBA (3)

Credit not given for both this course and 01:508:370.

Study of Cuba from pre-Columbian times to the present day. Deals with the long battle for freedom during the 19th and 20th centuries.

01:836:399. SOCIOECONOMIC HISTORY OF LATIN AMERICA (3)

Credit not given for both this course and 01:508:466.

Analysis of the capitalist mode of production in Latin America. Class struggles and state structures in the historical formation of Latin American societies.

01:836:400. TOPICS IN PUERTO RICAN AND CARIBBEAN LITERATURE (3)

Thematic approach to the textual analysis of selected poets, dramatists, essayists, and fiction writers.

01:836:401. SPECIAL TOPICS IN HISPANIC CARIBBEAN STUDIES (3)

Prerequisite: Permission of instructor.

Study of selected social science and historical topics on Cuba, Puerto Rico, the Dominican Republic, and the Caribbean. Selections may vary; consult department for offerings.

01:836:405. LATINO ETHNIC CONSCIOUSNESS (3)

Credit not given for both this course and 01:070:405.

Addresses contemporary understandings about formation of Latino ethnic consciousness in the United States. Examines theoretical and critical perspectives that inform social issues relevant to Latinos.

01:836:415. SOCIAL CHANGE IN PUERTO RICO (3)

Analysis of different approaches to social change in Puerto Rico, in the context of the Caribbean. Covers modernization, dependency, feminist, nationalist, and ecological perspectives.

01:836:462. LATIN AMERICAN SOCIAL HISTORY (3)

Credit not given for both this course and 01:508:368.

Impact of economic development, immigration, and urbanization on lower- and middle-class life in the 19th and 20th centuries through literary and anthropological as well as historical sources.

01:836:475. HISTORY OF THE PUERTO RICAN LABOR MOVEMENT (3)

Overview of the development of labor organizations and their socioeconomic and political impacts on the Puerto Rican society. Current problems confronting the labor movement discussed.

01:836:494. SERVICE LEARNING INTERNSHIP (1)

Must be taken in conjunction with a designated CASE (Citizenship and Service Education) course in the Department of Puerto Rican and Hispanic Caribbean Studies.

One-credit community service placement in Puerto Rican and Hispanic Caribbean studies.

01:836:495,496. INDEPENDENT STUDY (3,3)

Prerequisite: Permission of instructor. Open only to junior and senior majors and minors in Puerto Rican and Hispanic Caribbean studies.

01:836:497. SEMINAR IN PUERTO RICAN AND HISPANIC CARIBBEAN STUDIES (3)

Prerequisite: Permission of instructor.

Analysis of contemporary or historical topic leading to students' independent research and writing of substantial paper. Critical thinking and discussion emphasized.

RELIGION 840

Department of Religion, Faculty of Arts and Sciences

Web Site: <http://religion.rutgers.edu>

Chairperson: Hiroshi Obayashi

Professors:

Henry W. Bowden, B.A., Baylor; M.A., Ph.D., Princeton
 Alberto R. Green, B.A., Colegio de las Antillas (Cuba); M.A., Andrews; Ph.D., Michigan
 James T. Johnson, A.B., Brown; B.D., Vanderbilt Divinity School; M.A., Ph.D., Princeton
 James W. Jones, B.A., Earlham College; B.D., Episcopal Theological Seminary; Ph.D., Brown; Psy.D., Rutgers
 Hiroshi Obayashi, B.A., B.D., Doshisha (Japan); S.T.M., Andover Newton Theological School; Ph.D., Pennsylvania

Associate Professors:

Edwin F. Bryant, B.A., M.A., Ph.D., Columbia
 Mahlon H. Smith, B.A., Rutgers; B.D., Drew; M.S.L., Pontifical Institute of Medieval Studies (Toronto)

Assistant Professors:

Tia M. Kolbaba, B.A., Whitman College; M.A., Ph.D., Toronto
 Jawid Mojaddedi, B.A., Ph.D., Manchester

Major Requirements

A major in religion requires a minimum of 12 courses (36 credits) in the field, of which at least seven (21 credits) must be at the 300 level or higher. A maximum of five courses (15 credits) numbered below the 300 level may be counted toward the major. 01:840:211, 212, and a seminar must be taken by all majors. An average grade of C or better in these courses is required to complete the major. With prior approval of the department, up to two religion-related courses (6 credits) offered by other departments may be credited toward the major.

Minor Requirements

A minor in religion consists of six religion courses of 3 or more credits. At least three of the courses must be at the 300 or 400 level. An average grade of C or better in these courses is required to complete the minor.

Departmental Honors Program

To qualify for honors in religion, a student must have a cumulative grade-point average of 3.0 or better and an average of 3.4 or better in the major. Qualified students should apply to the chairperson by March in their junior year. Those whose candidacy is accepted should enroll in

RELIGION

01:840:497-498 during their senior year. In consultation with an adviser, the student decides whether the project undertaken is to earn 3 or 6 credits per term. In order to graduate with honors, a student must complete a research thesis and departmental examination with grades of distinction.

Courses

01:840:101. INTRODUCTION TO RELIGION: SOCIAL PATTERNS (3)

Only open to first-year students and sophomores.

Varied origins of religion and motifs in its development in different cultures.

01:840:102. INTRODUCTION TO RELIGION: PATTERNS OF THOUGHT (3)

Only open to first-year students and sophomores.

Lifestyles and systems of thought represented by major religions.

01:840:112. DEATH AND AFTERLIFE (3)

Open only to first-year students and sophomores.

Various religious concepts of death, resurrection, reincarnation, and other forms of afterlife; their relevance to this worldly life.

01:840:201. OLD TESTAMENT (3)

Interpretation of basic Hebrew scriptures in translation; history of religious themes such as sin, covenant, and prophecy in ancient Israel.

01:840:202. NEW TESTAMENT (3)

Interpretation of basic Christian scriptures in translation; influence of Jesus and Paul on the early Christian community.

01:840:203. ISLAMIC SCRIPTURES: QURAN AND HADITH (3)

Introduction to sacred texts of Islam; emphasis on words and deeds of the prophet Muhammad, collectively known as the Hadith or Sunnah. Explores how revelation bridges the gap between the divine and human by examining Islamic scriptures in historical, theological, legal, and mystical contexts.

01:840:204. HINDU SCRIPTURES (3)

Interpretation of basic Hindu scriptures in their historical, literary, and theological contexts to see how they contributed to the development of various traditions and spiritual paths in Hinduism.

01:840:205. BUDDHIST SCRIPTURES (3)

Credit not given for both this course and 01:685:233.

Interpretation of foundational Buddhist scriptures in their historical, literary, and philosophical contexts to trace the development of Indian Buddhism as well as its process of cultural accommodation in east Asia.

01:840:211. RELIGIONS OF THE EASTERN WORLD (3)

Religious beliefs, practices, and sacred writings of Hinduism, Buddhism, Confucianism, Taoism, and Shinto.

01:840:212. RELIGIONS OF THE WESTERN WORLD (3)

Religious beliefs, practices, and sacred writings of Judaism, Christianity, and Islam.

01:840:221. ETHICAL ISSUES, RELIGIOUS RESPONSES (3)

Jewish and Christian ethical traditions related to contemporary issues in personal and social ethics, such as sexuality, racism, medical ethics.

01:840:222. ISSUES IN RELIGIOUS THOUGHT (3)

Questions faced by religion in the contemporary era: faith and reason, religious experience, role of religion in a scientific society, nature of God.

01:840:240. LOVE AS ETHIC AND IDEA (3)

Judeo-Christian religious tradition, viewed through the concept of love as moral and theological ideal, from the biblical period to the present.

01:840:250. JEWISH MYSTICISM AND KABBALAH (3)

Credit not given for both this course and 01:563:250.

Survey of Jewish mystical traditions from the early rabbinic traditions to the central text of kabbalistic literature, the Zohar, in 13th-century Spain.

01:840:293,294. TOPICS IN THE STUDY OF RELIGION (3,3)

Selected themes in the study of religion. Topics announced when courses offered.

01:840:301. ANCIENT NEAR EASTERN RELIGIONS (3)

Not open to first-year students.

Religious patterns in Mesopotamia, Anatolia, Canaan, Israel, and Egypt from texts in translation; their impact on cultural development of the Near East.

01:840:302. CULTURAL CONTEXT OF THE OLD TESTAMENT (3)

Prerequisite: 01:840:201 or permission of instructor.

Emergence of the Hebrew scriptures from the religious, social, political, and economic milieu of ancient Israel and influence of contiguous cultures on their development.

01:840:303. HEBREW PROPHETS: SOCIAL AND RELIGIOUS THOUGHTS (3)

Prerequisite: 01:840:201 or permission of instructor. Not open to first-year students.

Development and diffusion of Israelite prophetic thought from early associations with divination in Near Eastern culture through the Exile and later decline.

01:840:304. POST-EXILIC LITERATURE OF ISRAEL (3)

Prerequisite: 01:840:201 or permission of instructor.

Influence of the Babylonian Exile on the religion and writings of late-biblical Israel; development of Jewish life and thought in the Persian and Hellenistic periods.

01:840:306. GREEK AND ROMAN RELIGIONS (3)

Credit not given for both this course and 01:190:326.

Study of pagan gods and goddesses, cults, and practices of the classical Greek world, Roman Republic, and Roman Empire.

01:840:307. JESUS (3)

Prerequisite: 01:840:202 or permission of instructor.

Career and teaching of Jesus viewed in historical context; development of the Gospel tradition and its effect on later concepts of Christ.

01:840:308. PAUL (3)

Prerequisite: 01:840:202 or permission of instructor.

Letters of Paul in historical context: his background, conversion, and apostolic mission; the development and influence of his thought on later Christianity.

01:840:309. JOHN (3)

Prerequisite: 01:840:202 or permission of instructor.

Historical and theological backgrounds of the Fourth Gospel and its influence on the thought of early Christianity.

01:840:312. GREEK CHRISTIANITY (3)

Eastern church tradition from the second through the eighth centuries; theological controversies and the development of liturgy, monasticism, and mysticism.

01:840:313. LATIN CHRISTIANITY (3)

Western church tradition from the 3rd through the 13th centuries; theological controversies and the development of sacraments, papacy, and religious orders.

01:840:315. PROTESTANT REFORMATION (3)

Reform movements in the Western Christian world from the 14th through 18th centuries; focus on figures who formed Protestant thought, such as Luther, Calvin, Cranmer, Fox, Wesley.

01:840:317. CATHOLICISM AND THE MODERN WORLD (3)

Roman Catholicism from the French Revolution to the present; thinkers such as Lammenais, Newman, and Gilson; topics such as liturgy, political rights, theological pluralism.

01:840:318. CONTEMPORARY CATHOLIC THEOLOGY (3)

Selected themes in the thought of 20th-century Roman Catholic figures, such as Rahner, Schillebeeckx, Küng.

01:840:319. RELIGION IN AMERICAN HISTORY (3)

Colonial patterns of established churches, revivalism, deism, and separation of church and state; denominational growth and immigration; effects of urban development, evolutionary thought, and social reform.

01:840:320. RELIGION AND NATIVE AMERICANS (3)

Beliefs and practices in aboriginal North American cultures before European exploration; subsequent patterns of conflict, acculturation, and survival.

01:840:322. HINDUISM (3)

Historical development of religious beliefs and practices in the culture of India; syncretism, mysticism, devotion, and personal disciplines.

01:840:323. BUDDHISM (3)

Rise of Buddhist theory and practice in the context of Indian culture; encounters with indigenous religions of East and Southeast Asia; development of Theravada, Mahayana, and Vajrayana.

01:840:324. CHINESE RELIGIONS (3)

Religious concepts and classic texts of Confucianism and Taoism; relation of religion to society and self in China, including role models and paradigms for self-transformation; alchemy and meditation.

01:840:325. PROPHET MUHAMMAD (3)

Muhammad's prophetic career in historical context; mystical and devotional tradition centering on him in Sunni and Shii Islam; sociopolitical reform movements based on prophetic model.

01:840:326. ISLAM (3)

Muhammad and the development of Muslim beliefs and practices; major movements and their effects on historical and current events.

01:840:327. ENCOUNTER OF RELIGIONS (3)

Religions in a pluralistic world; concepts of God, man, spirit, freedom as understood in East and West. Interreligious dialogue, religious synthesis, and universalism.

01:840:329. MEDIEVAL ARABIC RELIGIOUS TEXTS (3)

Credit not given for both this course and 01:685:329.

Reading and close analysis of selected medieval religious texts, including Qur'an, Quar'anic exegesis, hadith, fiqh, and philosophical treatises exploring relationships between reason and revelation.

01:840:330. RELIGION IN LATIN AMERICA (3)

Credit not given for both this course and 01:590:330.

Exploration of the religious complexity of Latin America, including Christianity, indigenous and syncretic practices, and traditions.

01:840:331. MYTH AND RITUAL (3)

Role of myth and patterns of ritual in primitive and ancient religious societies and their survival in contemporary cultures.

01:840:332. AFRICAN RELIGIONS (3)

Credit not given for both this course and 01:014:332.

Historical examination of the multifaceted worlds of African religions in their beliefs and practices, contributions to contemporary African popular culture, and the role religion played in political life.

01:840:333. CARIBBEAN RELIGION (3)

Credit not given for both this course and 01:836:333.

Examines the history and role of the diverse religious components of the Caribbean basin from indigenous practices to Catholicism, Protestantism, Judaism, and the emergence of African belief systems such as Vodou, Santeria, and Rastafarianism from the 18th century to the present.

01:840:334. HEALING: SACRED AND SECULAR (3)

Examination of healing as a religious process in various cultures; discussion of transition from sacred healing to secular medicine and psychotherapy in the West.

01:840:335. BUDDHIST MEDITATION TRADITIONS (3)

Introduction to Buddhism. Explores meditative techniques / practices for attaining enlightenment, with emphasis on Zen (Ch'an) meditation and roles played by *Koan* and *Zazen* in this process of transformation.

01:840:336. CHRISTIAN MYSTICISM (3)

Phenomenological analysis of classic descriptions of mystical experience; evolution of relevant motifs through Christian traditions.

01:840:338. RELIGIOUS THEMES IN EAST ASIAN LITERATURE (3)

Religious ideas and attitudes as expressed in Chinese, Korean, and Japanese literature.

01:840:341. RELIGION AND PSYCHOLOGY (3)

Psychological inquiry into the role of religion in the life history of the individual and his or her relation to the transcendent.

01:840:342. RELIGIOUS EXPERIENCE AND CONTEMPORARY CULTURE (3)

Religion and modern consciousness as investigated by the social sciences; topics such as the function of religion, secularism, and modernity.

01:840:343. RELIGION AND POLITICS (3)

Not open to first-year students.

Function of religion in initiating social and political changes by envisioning the future, formulating utopian blueprints, and providing transcendent norms for social criticism.

01:840:345. HINDU GURUS IN THE WEST (3)

Lives and teachings of Vivekananda, Aurobindo, Sivananda, Yogananda, Rajneesh, and others. Classical texts and problems of innovations and preservation. Sociological and psychological issues of transplanting the guru-disciple relationship to Western soil.

01:840:346. SEXUALITY IN THE WESTERN RELIGIOUS TRADITIONS (3)

Prerequisite: One course in Western religious traditions.

Ideas and problems in Catholic, Protestant, and Jewish normative traditions on sexuality. Topics include sexuality and human nature, sexual identity / roles, marriage and family.

01:840:347. WAR, PEACE, AND VIOLENCE IN WESTERN RELIGIOUS THOUGHT (3)

Prerequisite: One course in Western religious traditions.

Ideas of just war, holy war, and pacifism in Judaism, Christianity, and Islam; their relation to contemporary issues of war and peace.

01:840:350. WOMEN IN EASTERN RELIGIONS (3)

Images and roles of women in major Asian religions: Hinduism, Buddhism, Confucianism, and Taoism. Women's autobiographical accounts of religious experiences, attitudes toward women expressed in these religious institutions, the feminine as a symbol of the divine; representative great goddesses such as Kuan-yin.

01:840:351. WOMEN IN WESTERN RELIGIONS (3)

Images and roles of women in Judaism, Christianity, and Islam; attitudes toward women expressed in these religious institutions; religious experiences of women mystics and religious practices favored by women.

RUSSIAN

01:840:352. RELIGION AND SCIENCE (3)

Theories of religious and scientific knowledge, cosmology and astronomy, life and creation.

01:840:356. ISLAMIC MYSTICISM (3)

Credit not given for both this course and 01:685:356.

Based essentially on primary sources. Examines both Islamic mystical theory and practice, paying particular attention to a range of core Sufi doctrines.

01:840:357. KRISHNA (3)

Examination of the various faces and theologies of Krishna, one of the most important Hindu deities. Depiction in the *Mahabharata*, *Bhagavad Gita*, and *Bhagavata Purana* with reference to rasa theory, a medieval taxonomy of various moods in which the devotee approaches God as a lover, child, friend, or master.

01:840:358. BHAGAVAD GITA (3)

Analysis of this important Hindu scripture. Study of influential commentaries. Attention to Indian and Western appropriations of the text.

01:840:368. HINDU PHILOSOPHY (3)

Credit not given for both this course and 01:730:368.

Upanishads, *Patanjali*, *Bhagavad Gita*; theories of matter, energy; states of consciousness; meditation. Yogas of knowledge, action, devotion. Karma. Ethics. Comparison of Hindu and Western cosmology.

01:840:369. BUDDHIST PHILOSOPHY (3)

Credit not given for both this course and 01:730:369.

Interdependence, impermanence, relativity; suffering; path to liberation; meditation; karma as cosmic justice; death and rebirth. Compassion as a central ethical value. Theravada, Mahayana, and Tibetan Buddhism.

01:840:374. ISLAMIC PHILOSOPHY (3)

Credit not given for both this course and 01:685:374 and 01:730:374.

Basic characteristics and tenets of Islam as a religion; early theological controversies; the major thinkers and mystics; their interaction with the other aspects of Islamic civilization.

01:840:393,394. TOPICS IN THE STUDY OF RELIGION (3,3)

Selected themes in the study of religion. Topics announced when course offered.

01:840:395,396. RESEARCH IN RELIGION (3,3)

Prerequisites: Previous course work in field and permission of department.

Directed study resulting in a major paper.

01:840:401. SEMINAR IN OLD TESTAMENT LITERATURE (3)

Prerequisites: 01:840:302, 303, 304, or permission of instructor.

Role of redactional criticism in determining literary structure, interdependence of primary divisions, and development of basic themes in Hebrew scriptures.

01:840:402. SEMINAR IN NEW TESTAMENT LITERATURE (3)

Prerequisite: 01:840:202 or permission of instructor.

Select problems in development of New Testament text, including oral tradition, literary sources, Greek language, and translation.

01:840:411. SEMINAR IN THE HISTORY OF EASTERN RELIGIONS (3)

Prerequisite: 01:840:211 or permission of instructor.

Central issues in the theory and practice of Eastern religious tradition presented in select sources from various periods; questions of method and interpretation.

01:840:412. SEMINAR IN THE HISTORY OF WESTERN RELIGIONS (3)

Prerequisite: 01:840:212 or permission of instructor.

Central issues in the theory and practice of Western religious tradition presented in select sources from various periods; questions of method and interpretation.

01:840:420. SEMINAR IN RELIGION AND PSYCHOLOGY (3)

Prerequisites: At least one course in religion and one course in psychology or by permission of instructor. Open only to juniors and seniors.

Advanced topics in religion and psychology.

01:840:421. SEMINAR IN RELIGION AND SOCIETY (3)

Prerequisite: One course in western religious traditions or permission of instructor.

Interaction of religion and society in the thought of selected theologians, ethicists, and sociologists of religion.

01:840:422. SEMINAR IN THEOLOGY (3)

Prerequisite: One of the following: 01:840:101, 102, 212, 222, or permission of instructor. Open only to juniors and seniors.

Contributions of selected European and American theologians, past or present; attention to theological method.

01:840:424. SEMINAR IN RELIGION AND SCIENCE (3)

Prerequisite: One course in religion or permission of instructor. Open only to juniors and seniors.

Contemporary topics in the relationship between science and religion. Potential topics include evolution; cosmology and creation; mind, brain, and consciousness; religious and scientific methods. Topics change from year to year.

01:840:426. SEMINAR IN THE STUDY OF RELIGION (3)

Open only to majors in their junior or senior year.

Selected topics in the study of religion which vary from term to term. Topics include religion and violence, fundamentalisms, the self in world religions, uses of scriptures, and religious experiences.

01:840:427. SEMINAR IN THE STUDY OF RELIGION (3)

Selected topics in the study of religion. Topics may include religion and violence, fundamentalisms, the self in world religions, uses of scriptures, and religious experiences.

01:840:481. SEMINAR ON BUDDHIST RELIGION AND ART OF CHINA (3)

Prerequisites: 01:082:323, 01:840:211 or 323 or permission of instructor.

Credit not given for both this course and 01:082:481.

Focus on evolution of the Buddha image in the scriptures and art of China.

01:840:482. SEMINAR IN ISLAMIC ETHICS (3)

Describing and evaluating reasons Muslims give for judgments they make about right and wrong or good or evil, as they relate to human acts, attitudes, and beliefs. Attention to modern Islamic ethical writings and contemporary issues, such as Islam and human rights, relativism, universalism, and interfaith dialogue.

01:840:495,496. RESEARCH IN RELIGION (3,3)

Prerequisites: Previous course work in field and permission of department.

Directed study resulting in a major paper.

01:840:497-498. HONORS IN RELIGION (3,3 OR 6,6)

Both terms must be completed to receive credit.

RUSSIAN 860

Department of Germanic, Russian, and East European Languages and Literatures, Faculty of Arts and Sciences

Web Site: <http://cces.rutgers.edu>

Associate Professors:

Carol Avins, B.A., Pennsylvania; Ph.D., Yale

Gerald Pirog, B.A., Rutgers; M.Phil., Ph.D., Yale

Major Requirements

To complete the major in Russian, students may choose from among three options:

1. An option in Russian language and literature (36 credits) is intended for students whose primary goal is language proficiency and a thorough knowledge of Russian literary culture.
2. An option in Russian literature and history (36 credits) is designed for students with a broad interest in literature and language and who wish to do structured, interdisciplinary work that examines Russian literature within its historical and political contexts.

In addition to these options, students with an exclusive interest in acquiring language proficiency may elect to pursue a Certificate in Russian Language Proficiency (21 credits of work exclusively in Russian language courses).

Scholastic Standing

Students must complete all required course work with grades of C or better.

Option in Russian Language and Literature

The option in Russian language and literature aims to provide a solid training in the Russian language and a broad introduction to Russian culture, particularly literary culture, in the prerevolutionary, Soviet, and post-Soviet periods. It provides a context in which students can explore the ways that literature has formed and has been formed by larger social and cultural forces. While its central focus is the study of literature, majors are encouraged to study literary discourse in the context of other discursive forms, particularly history, art history, philosophy, and political science. It also is recommended highly that students who wish to continue their studies of Russian literature in graduate school acquire proficiency in another Slavic or East European language or French or German and that they consider course work in comparative literature. Students are urged to do some language course work during Summer Session and to consider strongly summer programs in Russia.

The option in Russian language and literature consists of 36 credits beyond 01:860:201,202 Second-Year Russian. Students whose knowledge of Russian places them beyond 01:860:302 are required to substitute other courses to complete 36 credits.

Required Core Courses (18 credits)

- 01:860:205 Introduction to Russian Literature (3)
- 01:860:301, 302 Third-Year Russian (3,3)
- 01:860:401, 402 Fourth-Year Russian (3,3)
- 01:860:486 Seminar in Russian Literature (3)

Electives (15 credits from the following):

- 01:860:320 Special Topics in Russian Studies (3)
- 01:860:322 Russian Short Story (3)
- 01:860:327,328 The Russian Novel I,II (3,3)
- 01:860:330 Dostoevsky (3)
- 01:860:332 Russian Poetry (3)
- 01:860:335 Landscapes of the Mind: Country and City in Russian Literature and Art (3)
- 01:860:336 Art and Literature of the Soviet Period and the Varieties of Nonconformism (3)
- 01:860:337 Ideology and the Construction of Fact: Soviet Cinema and the Historical Record (3)

- 01:860:338,339 Zimmerli Museum Internship in Russian Art (3,3)
- 01:860:347 Russian Drama (3)
- 01:860:433 Pushkin and His Age (3)
- 01:860:435 Social Construction of Gender and Sexuality in Russian Literature (3)
- 01:860:491,492 Russian Practicum (3,3)

Option in Russian Literature and History

The option in Russian literature and history consists of 36 credits from the combined disciplines. It aims to place Russian literature within the larger framework of Russian history, particularly intellectual history, and to show the constant and extensive interaction of literature and history.

Required Core Courses (24 credits)

Language Courses (9 credits)

- 01:860:301,302 Third-Year Russian (3,3)
- 01:860:359 Translation (3) or 01:860:375, 378, 380: three 1-credit language workshops in which texts connected with course work in history or political science are read in Russian (3) or 01:860:338 or 339 Zimmerli Museum Internship in Russian Art (3)

Courses in Russian History and Political Science (9 credits)

- 01:510:373 State and Society in Imperial Russia (3)
- 01:510:375 Revolutionary Russia and the Soviet Union (3)
- 01:790:380 Russian and Central European Political Thought (3)

Senior Seminar and Senior Thesis (6 credits)

- 01:860:486, 487 Development of a topic designed by the student in consultation with an instructor from at least two disciplines who agrees to direct the project. Culminates in a substantial research paper.

Electives (12 credits from the following):

- 01:860:320 Special Topics in Russian Studies (3)
- 01:860:327, 328 The Russian Novel I,II (3,3)
- 01:860:330 Dostoevsky (3)
- 01:860:335 Landscapes of the Mind: Country and City in Russian Literature and Art (3)
- 01:860:336 Art and Literature of the Soviet Period and the Varieties of Nonconformism (3)
- 01:860:337 Ideology and the Construction of Fact: Soviet Cinema and the Historical Record (3)
- 01:860:433 Pushkin and His Age (3)
- 01:860:435 Social Construction of Gender and Sexuality in Russian Literature (3)

Minor in Russian Language and Literature

The minor in Russian language and literature consists of three courses of 3 or more credits each in the Russian language and three courses in Russian literature. The student's program must be approved by the departmental adviser.

Departmental Honors Program

To qualify, a student must have a cumulative grade-point average of 3.0 or better and an average of 3.4 or better in the major at the end of the junior year. At that time, the student should make a formal application. During their senior

year, in addition to fulfilling major course requirements, candidates who are accepted by the discipline honors committee take 01:860:496-497, in which they complete a major research paper under the direction of an adviser. Students who complete the requirements for honors may use their research paper to fulfill the discipline research-paper requirement.

Certificate in Russian Language Proficiency

Any student may earn a certificate of proficiency in Russian after successfully completing (B or better) work in the following courses (15 credits):

01:860:301, 302 Third-Year Russian (3,3)
01:860:401, 402 Fourth-Year Russian (3,3)

Students who present advanced placement or who are native speakers may be awarded certificates of proficiency after earning a grade of B or better in 01:860:351 or 359, and both 401 and 402.

Proficiency Examination for Credit

Students who have acquired any level of skill in a Slavic language by studying at some academic institution may, with the approval of the discipline director, take a proficiency examination in courses offered through the Faculty of Arts and Sciences. Credit is given for a grade of B or better. For courses passed by this means, the grade is not computed in the cumulative average.

Courses in English

01:860:259,260. MAJOR RUSSIAN WRITERS IN TRANSLATION (3,3)

First term: Pushkin, Gogol, Lermontov, Dostoevsky, Turgenev, Tolstoy. *Second term:* Chekhov, Bely, Bulgakov, Olesha, Zamyatin, Pasternak, Solzhenitsyn.

01:860:279. WOMEN IN 19TH-CENTURY RUSSIAN LITERATURE (3)

Textual and contextual examination of the foremost female protagonists in major 19th-century narrative texts and their overall impact upon the evolving woman's identity in Russian society.

01:860:330. DOSTOEVSKY (3)

Major works in historical, intellectual, and aesthetic contexts. *Brothers Karamazov*, *Crime and Punishment*, *Notes from the Underground*, and short works.

01:861:259. INTRODUCTION TO SLAVIC CIVILIZATIONS AND CULTURES (3)

01:861:264. LITERATURE AND POLITICS: THE EASTERN EUROPEAN EXPERIENCE (3)

Courses in Russian

01:860:101,102. FIRST-YEAR RUSSIAN (4,4)

Fundamentals of the language with exercises in speaking, reading, and writing.

01:860:105,106. RUSSIAN FOR READING KNOWLEDGE (3,3)

Does not satisfy prerequisite for 01:860:201.

First term: alphabet and basic grammar of Russian, use of dictionary, reading of basic texts. *Second term:* more advanced grammar, readings of texts from various fields.

01:860:107. RUSSIAN FOR RUSSIAN SPEAKERS (4)

Credit not given for both this course and 01:860:101.

Study of specific areas of grammar, orthography, usage, writing, and grammatical analysis.

01:860:108. RUSSIAN FOR RUSSIAN SPEAKERS (4)

Pre- or corequisite: 01:860:107 or permission of department.

Credit not given for both this course and 01:860:101.

Continued study of specific areas of Russian grammar. Development of reading, writing, and oral skills and vocabulary building through conversation, composition, newspapers, magazines, and film.

01:860:201,202. SECOND-YEAR RUSSIAN (4,4)

Prerequisite: 01:860:102 or two or more years of secondary school Russian.

Development of language skills, emphasis on speaking, translation drills, and grammar.

01:860:203,204. SECOND-YEAR RUSSIAN LANGUAGE LABORATORY (1,1)

Pre- or corequisites: 01:860:201,202.

Instructor-guided laboratory practicum based on intensive use of media and designed for improvement of aural/oral skills. Practice involves use of text-related and other audio and video material, individual and group work, and recording of student speech for evaluation of pronunciation and fluency.

01:860:205,206. INTRODUCTION TO RUSSIAN LITERATURE (3,3)

Principles of literary study, Russian literature in the context of European literature; periodization and genre; literature and ideology; literary institutions; gender, form, authorship.

01:860:215. INTERMEDIATE RUSSIAN FOR RUSSIAN SPEAKERS I (3)

Credit not given for both this course and 01:860:201.

Study of specific areas of grammar, orthography, usage; reading, writing, grammatical analysis.

01:860:301,302. THIRD-YEAR RUSSIAN (3,3)

Prerequisite: 01:860:202 or its equivalent.

Refinement of reading, writing, listening, and speaking skills. Selected topics of advanced Russian grammar. Vocabulary building.

01:860:320. SPECIAL TOPICS IN RUSSIAN STUDIES (3)

Credit not given for both this course and 01:082:358. May be conducted in English.

Variable content. Intensive study of a particular topic related to Russia and Russian culture. Specific topics available at time of registration.

01:860:322. RUSSIAN SHORT STORY (3)

Prerequisite: 01:860:202 or permission of instructor.

Reading, analysis, and discussion in Russian.

01:860:327. THE RUSSIAN NOVEL I (3)

Prerequisite: 01:860:202 or permission of instructor.

Russian novel from its beginnings in the 18th century to Tolstoy.

01:860:328. THE RUSSIAN NOVEL II (3)

Prerequisite: 01:860:202 or permission of instructor.

Russian novel in the 20th century; Bely, Ilf and Petrov, Nabokov, Zamyatin, Pilnyak, Pasternak, Solzhenitsyn, Bitov, Aksenov, et al.

01:860:332. RUSSIAN POETRY (3)

Prerequisite: 01:860:202 or permission of instructor.

Reading, analysis, and discussion of 19th- and 20th-century poetry.

01:860:335. LANDSCAPES OF THE MIND: COUNTRY AND CITY IN RUSSIAN LITERATURE AND ART (3)

Credit not given for both this course and 01:082:356.

Moscow and St. Petersburg; the Russian countryside versus the exotic sublime; the idyll versus the reality of peasant life; the city and modernism; utopia and antiurban impulse.

01:860:336. ART AND LITERATURE OF THE SOVIET PERIOD AND THE VARIETIES OF NONCONFORMISM (3)

Credit not given for both this course and 01:082:356.

Official literature and art; literary and art institutions. Official and unofficial art; alternative venues.

01:860:337. IDEOLOGY AND THE CONSTRUCTION OF FACT: SOVIET CINEMA AND THE HISTORICAL RECORD (3)

No knowledge of Russian required.

Examination of how early Soviet cinema produces and was produced by Soviet political history; emphasis on theoretical writings of S.M. Eisenstein.

01:860:338,339. ZIMMERLI MUSEUM INTERNSHIP IN RUSSIAN ART (3,3)

Prerequisite: Permission of program director. Credit not given for both these courses and 01:082:359,360. Knowledge of Russian necessary.

Research work related to Dodge and Riabov collections; assisting in development, coordination of special exhibitions, translation, compiling artists' files.

01:860:347. RUSSIAN DRAMA (3)

Prerequisite: 01:860:202 or permission of instructor.

Reading, analysis, and discussion of major Russian playwrights.

01:860:351,352. STRUCTURE OF THE RUSSIAN LANGUAGE (3,3)

Prerequisite: 01:860:202 or permission of instructor.

Advanced course with emphasis on morphology, difficult points of grammar. Theory and extensive drill work.

01:860:355. RUSSIAN PHONETICS (3)

Prerequisite: 01:860:202 or permission of instructor.

Analysis of the Russian phonetic system, intonation, and transcription; emphasis on reading of texts and dialogues.

01:860:359. TRANSLATION (3)

Prerequisite: 01:860:202 or permission of instructor.

Translation of advanced-level texts from Russian into English; emphasis on linguistic and stylistic problems, contrastive analysis.

01:860:375. LANGUAGE WORKSHOP: HISTORY (1)

Prerequisite: Permission of instructor. Corequisite: 01:510:375.

Reading of research material in Russian; development of specific professional vocabulary.

01:860:378. LANGUAGE WORKSHOP: HISTORY (1)

Prerequisite: Permission of instructor. Corequisite: 01:510:378.

Reading of research material in Russian; development of specific professional vocabulary.

01:860:380. LANGUAGE WORKSHOP: POLITICAL SCIENCE (1)

Prerequisite: Permission of instructor. Corequisite: 01:790:380.

Reading of research material in Russian; development of specific professional vocabulary.

01:860:401,402. FOURTH-YEAR RUSSIAN (3,3)

Prerequisite: 01:860:302 or permission of instructor.

Reading and discussion of various oral and written styles. Phraseology. Communicative skills.

01:860:433. PUSHKIN AND HIS AGE (3)

Prerequisites: 01:860:301 and at least one 300-level course in Russian literature or permission of instructor.

Historical examination of Russian literary scene during the period 1740 to 1841, in Russian.

01:860:435. SOCIAL CONSTRUCTION OF GENDER AND SEXUALITY IN RUSSIAN LITERATURE (3)

Reading knowledge of Russian helpful but not required.

Gender, power, and imperial discourse; cross-dressing; gender and authorship; sadism, masochism, and suicide; exile, dislocation, and sexuality; homosexuality. Readings from the 19th and 20th centuries.

01:860:451. INTRODUCTION TO SLAVIC LINGUISTICS (3)

Prerequisite: 300-level course in Russian or permission of instructor.

Linguistic concepts and their applicability to Russian and the Slavic languages. Origin and development of the Slavic languages.

01:860:452. SEMINAR IN SLAVIC LINGUISTICS (3)

Prerequisite: 01:860:451 or permission of instructor.

Devoted to specific problems in the area of Slavic linguistics. Variable content, e.g., history of the Russian language, readings in Old Russian, advanced problems of morphology.

01:860:486. SEMINAR IN RUSSIAN LITERATURE (3)

Prerequisites: 01:860:301 and at least one 300-level course in Russian literature or permission of instructor.

Intensive reading and research in one specific aspect of Russian letters. Critical and analytical paper required.

01:860:487. SENIOR THESIS (3)

Prerequisite: 01:860:486. Required of students who choose options in Russian literature or Russian history.

Extended research paper written in close consultation with an instructor.

01:860:491,492. RUSSIAN PRACTICUM (3,3)

Prerequisites: 01:860:302 and/or permission of instructor.

Corequisites: 01:860:401,402, if applicable.

Drill methods, techniques of facilitating classroom interaction, error analysis, grammar review, and weekly drill sessions conducted in beginning Russian sections under faculty supervision.

01:860:493,494. INDEPENDENT STUDY: RUSSIAN (3,3)

Prerequisite: Permission of instructor.

01:860:496-497. HONORS IN RUSSIAN (3,3)

Prerequisite: Permission of honors committee. Both terms must be completed to receive credit.

Preparation for research paper and oral examination under direction of a faculty adviser.

RUSSIAN, CENTRAL AND EAST EUROPEAN STUDIES 861

See European Studies 360, Hungarian 535, Polish 787, Russian 860, Ukrainian 967

The major and minor in Russian, Central and East European Studies have been subsumed as a track within the new major and minor in European Studies. See European Studies 360 for more information.

Courses

01:861:121,122. SPECIAL LANGUAGE STUDY (4,4)

Prerequisite: Permission of department. This course may be taken twice as the language changes.

Devoted to one of the languages relevant to the geographic area covered by the 861 major other than Russian, Polish, or Ukrainian.

01:861:317,318. RUSSIAN CULTURE TODAY (1.5,1.5)

Taught in English.

Contemporary cultural, social, and political life in the Soviet Union with emphasis on the daily experience. Field trips.

01:861:360. SPECIAL TOPICS IN HUNGARIAN STUDIES (3)

Conducted in English. No knowledge of Hungarian is necessary. Credit not given for both this course and 01:535:360.

Variable content. With permission of program director, course may be taken repeatedly if content is different.

01:861:370. SPECIAL TOPICS IN POLISH STUDIES (3)

Conducted in English. Credit not given for both this course and 01:787:370.

Topics related to Poland and Polish culture. Specific titles available at time of registration.

01:861:391. HISTORICAL STUDIES: IDEAS OF MODERNITY (3)

Credit not given for both this course and 01:510:391.

Variable content. Consult program director for specific topic and requirements.

01:861:455. CONTEMPORARY RUSSIA, CENTRAL AND EASTERN EUROPE (3)

Exit seminar required of majors. Theme of seminar changes each year depending on faculty members teaching it. Seminar culminates with a substantial research paper written under the guidance of at least two faculty members.

01:861:460. ADVANCED SPECIAL TOPICS IN HUNGARIAN STUDIES (3)

Conducted in English. No knowledge of Hungarian is necessary. Credit not given for both this course and 01:535:460.

Variable content. With permission of program director, course may be taken repeatedly if content is different.

01:861:470. ADVANCED SPECIAL TOPICS IN POLISH STUDIES (3)

Prerequisite: Permission of department. Conducted in English. Credit not given for both this course and 01:787:470.

Intensive study of a particular topic related to Poland and Polish culture. Specific titles available at time of registration.

01:861:475. SEMINAR IN POLISH STUDIES (3)

Prerequisite: Permission of department. Conducted in English. Credit not given for both this course and 01:787:475.

Intensive seminar on selected topics related to Poland and Polish culture. Specific titles available at time of registration.

01:861:493,494. INDEPENDENT STUDY (3,3)

Prerequisite: Permission of instructor.

Supervised individual study of selected topics of interest, with extensive reading and / or independent research project.

RUTGERS COLLEGE COURSES

(See Arts and Science 090)

SCIENCE, TECHNOLOGY, AND SOCIETY

Faculty of Arts and Sciences

Program Director: Michael N. Geselowitz

Program Committee:

Monica A. Devanas, *Teaching Excellence Center*

Michael N. Geselowitz, *IEEE History Center; Ph.D., Harvard*

Marc Manganaro, *English; Ph.D., North Carolina*

Terry A. Matilsky, *Physics; Ph.D., Princeton*

Philip J. Pauly, *History; Ph.D., Johns Hopkins*

The interdisciplinary minor in science, technology, and society (STS) provides a structure for learning about science and technology—their conceptual foundations, their history, their interaction with each other, the social context of their development, and their impact on people and societies—as a way of understanding contemporary public issues. For further information about the program and a list of additional faculty and staff associated with the STS program, contact the program director.

Minor Requirements

The interdisciplinary minor in STS consists of seven courses that must include 01:556:220 Introduction to Science, Technology, and Society, a 3-credit multidisciplinary course that is designed specifically for students in the minor; 01:556:404 Topics in Science, Technology, and Society, a 1-credit senior seminar; and five 3-credit courses in the area of STS (see STS-Area Courses below).

In addition, students must show some familiarity with mathematics and science, defined by taking two courses in each (see Mathematics Requirement and Science Requirement below).

Course selections for the minor must be approved by the program director or a program adviser. Only courses completed with grades of C or better are counted toward the minor.

STS-Area Courses

As noted above, to complete the STS minor, students must take five STS-area courses. Two of the five courses must be in two different disciplines outside the student's major, and at least three of the five courses must be upper level (300 level or above). The STS-area courses include the following:

- 01:014:380 Blacks in Science: Ancient and Modern (3)
- 01:050:314 Technology and Culture in America (3)
- 01:119:150 Biology, Society, and Biomedical Issues (3)
- 01:119:152 Biomedical Issues of AIDS (3)
- 01:119:154 Genetics, Law, and Social Policy (3)
- 01:119:160 Biology, Society, and Ecological Issues (3)
- 01:160:140 The Greenhouse Effect (3) (Credit not given for both this course and 01:450:140, 01:556:140, or 01:750:140)
- 04:192:347 Information Systems and Communication (3)
- 04:192:446 Communication and Social Change (3)
- 04:192:449 Telecommunication Processes and Policy (3)
- 01:198:405 Seminar in Computers and Society (3)
- 01:220:316 Health Economics (3)
- 01:220:332 Environmental Economics (3) (Credit not given for both this course and 11:373:363)
- 01:351:349 Literary and Scientific Writings (3)
- 11:373:363 Environmental Economics (3) (Credit not given for both this course and 01:220:332)
- 01:450:102 Transforming the Global Environment (3)
- 01:450:140 The Greenhouse Effect (3) (Credit not given for both this course and 01:160:140, 01:556:140, or 01:750:140)
- 01:450:211 Conservation and Use of Natural Resources (3)
- 01:450:370 Global and Regional Climate Change (3)
- 01:450:470 History and Theory of Geography (3)
- 01:506:251 History of Science and Society (3)
- 01:506:253 History of Technology and Society (3)
- 01:512:121 Health and Environment in America (3)
- 01:512:236 Edison and His Era (3)
- 01:512:326 Technology and Society in America (3)
- 01:512:328 Science in American Culture (3)
- 01:512:395 The Electric Century (3)
- 01:556:140 The Greenhouse Effect (3) (Credit not given for both this course and 01:160:140, 01:450:140, or 01:750:140)
- 01:730:225 Introduction to the Philosophy of Science (3)
- 01:730:249 Medical Ethics (3)
- 01:730:329 Minds, Machines, and Persons (3)

- 01:730:424 The Logic of Decision (3)
 01:730:425 Philosophy of Science (3)
 01:730:426 Philosophy of Physics (3)
 01:750:109 Astronomy and Cosmology I (3)
 01:750:110 Astronomy and Cosmology II (3)
 01:750:140 The Greenhouse Effect (3) (Credit not given for both this course and 01:160:140, 01:450:140, or 01:556:140)
 11:776:170 Plants and People (3)
 01:840:334 Healing: Sacred and Secular (3)
 01:840:344 Religion and Technological Society (3)
 01:840:348 Ethical Problems in Medicine (3)
 01:840:352 Religion and Science (3)
 01:920:210 Sociology of Medicine and Health Care (3)
 01:920:331 Sociology of Industry (3)
 01:988:240 Gender and Science (3)

Mathematics Requirement

To complete the STS minor requirement, students must show some familiarity with mathematics, usually by the end of the junior year. The mathematics requirement ordinarily may be fulfilled by placing into CALC3, or by placing into CALC2 and taking one of the following courses (other than Calculus I), or by taking two of the following courses:

1. 01:640:103, 104, or any mathematics course of 3 credits or more at the level of 135 or above;
2. 01:198:111, 112, 205, 206, 211, or any computer science course of 4 credits at the level of 314 or above;
3. Any statistics course at the level of 211 or above; or
4. 01:730:201 Introduction to Logic.

Science Requirement

As noted above, to complete the minor requirement, students must show some familiarity with science, ordinarily by the end of the junior year. The science requirement may be fulfilled by completing two courses of 3 or more credits in a single science, where at least one course has a significant laboratory component. This ordinarily shall be done by taking one of the laboratory-based two-course sequences in life sciences, chemistry, geology, or physics; but in any event, the courses selected for fulfillment of the science requirement must be approved by the program director or a program adviser.

Courses

01:556:220. INTRODUCTION TO SCIENCE, TECHNOLOGY, AND SOCIETY (3)

Prerequisite: Sophomore standing.

Development of sciences and technologies; shifting relations with economics, politics, religion, and philosophy; ways of understanding contemporary public issues.

01:556:404. TOPICS IN SCIENCE, TECHNOLOGY, AND SOCIETY (1)

Prerequisite: Completion of all other STS minor requirements or permission of the program director or a program adviser. Open only to students in the STS minor.

Discussion and reading about selected topics in science, technology, and society. Enables students to integrate the variety of perspectives acquired in the course of completing the minor.

SOCIAL WORK 910

Baccalaureate Social Work Program, School of Social Work

Web Site: <http://socialwork.rutgers.edu/index.html>

Dean: Mary Edna Davidson, B.A., San Francisco; M.S.W., California (Berkeley); Ph.D., Brandeis

Director of B.A. Social Work Program: Raymond Sanchez Mayers, B.A., CUNY (Baruch College); M.S.W., Barry College; Ph.D., Brandeis

Assistant Director of B.A. Social Work Program (Livingston College Program): V. DuWayne Battle, B.A., Barton College; M.Div., D.Min., Southeastern Theological Seminary; M.S.W., Ph.D., Rutgers

The major in social work is accredited by the Council on Social Work Education. Students who successfully complete the program receive a bachelor of arts degree from Livingston College. The program prepares 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 early in the spring term of their sophomore year. A cumulative grade-point average of 3.0 is required for acceptance into the program. Inquiries and applications should be directed to the Assistant Director, Baccalaureate Social Work Program, School of Social Work.

Following acceptance into the program, all social work majors are assigned a faculty adviser within the School of Social Work. To continue in this major, students must maintain a 3.0 grade-point average in social work courses. In order to graduate, students must have grades of C or better in all social work core-content courses and a 2.0 cumulative grade-point average in the courses making up the liberal arts foundation.

Major Requirements

Prerequisites

Students should complete the following courses prior to enrollment in the social work program.

- 01:119:150 Biology, Society, and Biomedical Issues (3) or 01:119:154 Genetics, Law, and Social Policy (3) or 01:119:160 Biology, Society, and Ecological Issues (3) or 01:119:182 Human Sexuality (3)
 01:830:101 General Psychology (3)
 01:920:101 Introduction to Sociology (3) or 01:920:111 Social Class (3)
 01:960:211 Statistics I (3) or 01:830:200 Quantitative Methods in Psychology (4) or equivalent

Two additional courses, one from each of two of the following areas: art, communications/speech, history, literature, music, philosophy, and theater.

Course Sequence

The required courses and their recommended sequence are as follows:

Junior Year

Fall Term

- 09:910:220 Introduction to Social Work and Social Services (3)
 09:910:311 Social Welfare Policy and Services I (3)
 19:910:502 Human Behavior and the Social Environment I (3)

Spring Term

- 09:910:312 Social Welfare Policy and Services II (3)
- 09:910:332 Professional Development Seminar (3)
- 19:910:503 Human Behavior and the Social Environment II (3)
- 19:910:505 Methods of Social Work Research I (3)

Senior Year

Fall Term

- 09:910:352 Groups at Risk in Contemporary Society (3)
- 09:910:471 Field Practicum I (6)
- 09:910:472 Generalist Practice I (3)

Spring Term

- 09:910:473 Field Practicum II (6)
- 09:910:474 Generalist Practice II (3)
- 09:910:475 Integration Seminar (3)

Courses

09:910:220. INTRODUCTION TO SOCIAL WORK AND SOCIAL SERVICES (3)

Required for social work major. Should be taken by pre-majors in sophomore year.
Overview of social work values, ethics, arenas of practice, and problem areas. Includes 40-hour volunteer experience within a social service agency.

09:910:311. SOCIAL WELFARE POLICY AND SERVICES I (3)

Pre- or corequisite: 09:910:220. Open only to students admitted to the major.
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.

09:910:312. SOCIAL WELFARE POLICY AND SERVICES II (3)

Prerequisite: 09:910:311.
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.

09:910:332. PROFESSIONAL DEVELOPMENT SEMINAR (3)

Prerequisite: 09:910:220. 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.

09:910:352. 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, people with disabilities, refugees, women, ethnic and racial minorities, participants in alternative lifestyles. Obstacles impeding the functioning of these groups explored.

09:910:471. FIELD PRACTICUM I (6)

Prerequisites: Social work major, senior status. Corequisite: 09:910:472. 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.

09:910:472. GENERALIST PRACTICE I (3)

Prerequisites: Social work major, senior status. Corequisite: 09:910:471.
Beginning preparation for generalist practice with client systems of all sizes and levels. Essential skills, values, concepts, and ethical considerations as they pertain to generalist practice.

09:910:473. FIELD PRACTICUM II (6)

Prerequisites: 09:910:471, 472. Corequisites: 09:910:474, 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, families, groups, organizations, and communities.

09:910:474. GENERALIST PRACTICE II (3)

Prerequisites: 09:910:471, 472. Corequisites: 09:910:473, 475.
Basic concepts and skills, including ethnic, racial, and gender-sensitive practice. Application of problem-solving model to micro- and macro-level intervention.

09:910:475. INTEGRATION SEMINAR (3)

Prerequisites: 09:910:471, 472. Corequisites: 09:910:473, 474.
Seminar course integrates all areas of prior and concurrent course learning as it applies to "real-life" field situations. Critical thinking skills and use of the social work profession's knowledge base emphasized.

19:910:502. HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT I (3)

Pre- or corequisite: 09:910:220. Open only to students admitted to the major.
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. 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 biopsychosocial development highlighted.

19:910:503. HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT II (3)

Prerequisite: 19:910:502.
Theories and knowledge of action groups, organizations, and communities as the context for micro and macro social practice. 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.

19:910:505. METHODS OF SOCIAL WORK RESEARCH I (3)

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.

SOCIOLOGY 920

Department of Sociology, Faculty of Arts and Sciences

Web Site: <http://sociology.rutgers.edu>

Chairperson: Ellen L. Idler

Director of Undergraduate Studies: Stephen Hansell

Director of Graduate Studies: Benjamin Zablocki

Professors:

Allan V. Horwitz, B.A., Dickinson College; M.Phil., Ph.D., Yale
Ellen L. Idler, B.A., College of Wooster; M.A., Rutgers; M.Phil., Ph.D., Yale
David Mechanic, University Professor; B.A., CUNY; M.A., Ph.D., Stanford
David Popenoe, A.B., Antioch; M.C.P., Ph.D., Pennsylvania
Patricia A. Roos, B.A., M.A., California (Davis); Ph.D., California (Los Angeles)
Thomas K. Rudel, B.A., Princeton; Ph.D., Yale
Jackson Toby, B.A., CUNY (Brooklyn College); M.A., Ph.D., Harvard
Chaim I. Waxman, B.A., M.H.L., Yeshiva; M.A., Ph.D., New School
for Social Research
Helene Raskin White, Center of Alcohol Studies, B.A., Rutgers; M.Phil., Ph.D., Rutgers
Benjamin Zablocki, A.B., Columbia; Ph.D., Johns Hopkins
Eviatar Zerubavel, B.A., Tel Aviv; M.A., Ph.D., Pennsylvania
Associate Professors:

József Böröcz, M.A., Ph.D., Johns Hopkins
Karen A. Cerulo, B.A., Rutgers; M.A., Ph.D., Princeton
Lee Clarke, B.S., Florida; M.A., Ph.D., SUNY (Stony Brook)
Jeanette Covington, B.A., M.A., Ph.D., Chicago
Judith Friedman, B.A., Antioch; M.A., Ph.D., Michigan
Judith Gerson, A.B., M.S., Syracuse; Ph.D., Cornell
Stephen Hansell, A.B., Brown; Ph.D., Chicago
Leslie McCall, A.B., Brown; M.S., Ph.D., Wisconsin (Madison)
Ann P. Parelius, B.A., CUNY (Hunter College); A.M., Ph.D., Chicago

Robert J. Parelius, B.A., *Oregon*; M.A., Ph.D., *Chicago*
 Sarah Rosenfield, B.A., *Washington (St. Louis)*; M.A., Ph.D., *Texas*
 D. Randall Smith, A.B., *Dartmouth College*; Ph.D., *Johns Hopkins*
 Arlene J. Stein, B.A., *Amherst College*; Ph.D., *California (Berkeley)*
 Richard Williams, B.A., *Brandeis*; Ph.D., *SUNY (Binghamton)*

Assistant Professors:

Vilna Bashi, B.A., *South Florida (Tampa)*; M.A., *Columbia*; M.S., Ph.D., *Wisconsin (Madison)*
 Ethel C. Brooks, B.A., *Williams College*; Ph.D., *New York*
 Deborah Carr, B.A., *Connecticut College*; M.S., Ph.D., *Wisconsin (Madison)*
 Paul Hirschfield, B.A., *Kalamazoo College*; M.A., Ph.D., *Northwestern*
 Catherine Lee, B.A., Ph.D., *California (Los Angeles)*
 John L. Martin, A.B., *Wesleyan*; M.A., Ph.D., *California (Berkeley)*
 Paul McLean, B.A., *Toronto*; M.A., Ph.D., *Chicago*
 Ann Mische, B.A., *Yale*; M.A., Ph.D., *New School for Social Research*
 Julie A. Phillips, B.A., M.A., Ph.D., *Pennsylvania*
 Robyn Rodriguez, B.S., *California (Santa Barbara)*; M.A., Ph.D., *California (Berkeley)*

Major Requirements

The major in sociology consists of 11 courses totaling 36 credits. Grades of C or better are required in each of the courses. However, students planning a career in education must maintain a grade-point average of at least 3.0 in sociology courses to receive departmental certification for student teaching.

Prior to declaring the major in sociology, students must complete one of the following: 01:920:311, 312, 313, or 314.

Core Courses

01:920:101 Introduction to Sociology (3)

and three of the following:

01:920:311 Introduction to Social Research (4)
 01:920:312 Computer Analysis of Social Science Data (4)
 01:920:313 Development of Sociological Theory (4)
 01:920:314 Contemporary Sociological Theories (4)

Electives

Of the seven elective courses, at least four must be at the 300 level or higher, including at least one course numbered 400 or higher. No more than 6 credits of Independent Study (01:920:483,484, 493,494, 495,496) and no more than 3 credits of Field Study (01:920:385,386) or Citizenship and Service Education (01:920:399) may be applied toward the major.

Minor Requirements

The minor in sociology consists of at least six courses totaling 19 credits. Grades of C or better are required in each of the courses. Courses required for the minor are 01:920:101 Introduction to Sociology and any one of 01:920:311 Introduction to Social Research, 01:920:312 Computer Analysis of Social Science Data, 01:920:313 Development of Sociological Theory, or 01:920:314 Contemporary Sociological Theories. Of the four elective courses, at least two must be at the 300 to 400 level. (Does not include 311, 312, 313, or 314.) No more than 6 credits at the 100 level and no more than 3 credits of Field Study (01:920:385,386) or Citizenship and Service Education (01:920:399) may be applied toward the minor.

Departmental Honors Program

Students who by the end of their junior year have earned 18 credits in sociology and have obtained a 3.6 grade-point average or better in these courses and a 3.0 cumulative

grade-point average are eligible for the departmental honors program. Admission is competitive and by permission of the department. In their senior year, honors students take two terms of honors research, which include participation in an honors seminar and the completion of a major research project. An oral presentation on their research is made to the department in the spring.

Transfer Students

Students majoring in sociology must complete at least six courses (21 credits) at Rutgers–New Brunswick / Piscataway. Each of the three 300-level core courses as well as the required 400-level course must be completed in New Brunswick / Piscataway.

Sociology minors must complete at least three courses (10 credits) at Rutgers–New Brunswick / Piscataway.

Recommended Course Clusters

For the convenience of both majors and nonmajors, the department suggests the following groupings of 01:920 courses that may be relevant to different student interests and career plans:

Aging and gerontology: 303, 438
 Business and industry: 315, 331, 363
 Community and urban planning: 321, 326, 353, 428
 Crime and deviance: 222, 304, 349, 361, 410, 413
 Education: 218, 345, 441
 Family: 216, 272, 324
 Gender and sex: 216, 324, 354, 440, 470
 Government and politics: 290, 349, 362, 375, 434
 Health and illness: 210, 307, 361, 410
 Inequality and class stratification: 111, 227, 306, 332, 489
 Mass media and communication: 205, 442
 Minorities: 108, 306
 Social movements and change: 280, 290, 362
 Social psychology: 283, 319
 Socioeconomic development: 270, 331, 354, 375
 Welfare: 103, 281, 332, 410

Independent Study

Students wishing to conduct an independent study in sociology must apply to the department in writing. Majors and minors must have a 3.0 grade-point average in sociology courses and have taken all prerequisites for 400-level courses. All other applications will be evaluated on a case-by-case basis.

Courses

Course Prerequisites

In the following course list, the Introductory Sociology prerequisite may be fulfilled with 01:920:101 or any other 920 course at the 100 or 200 level and permission of the instructor. The prerequisite for courses numbered between 315 and 399 is any one of 01:920:311, 312, 313, or 314. For courses numbered 400 or higher, the prerequisite is any two of 01:920:311, 312, 313, or 314.

01:920:101. INTRODUCTION TO SOCIOLOGY (3)

Not open to majors in their senior year.

Introduction to the systematic study of society and social behavior.

01:920:103. SOCIOLOGICAL ANALYSIS OF SOCIAL PROBLEMS (3)

Not open to majors in their senior year.

Understanding the major social problems of our times through the application of sociological principles and methods.

01:920:108. MINORITY GROUPS IN AMERICAN SOCIETY (3)

Not open to majors in their senior year.

Historical experiences of racial and ethnic groups in American society. Contemporary movements of minorities for greater power in the society, including the young, women, and senior citizens.

01:920:111. SOCIAL CLASS (3)

Not open to majors in their senior year.

Development of classes in Western society. Relation of class to race and ethnicity. Relevance of class to understanding modern society.

01:920:198. SOCIOLOGY HONORS SEMINAR (3)

Enrollment by invitation of department only.

Selected topics in sociology. Content varies from term to term.

01:920:205. MASS COMMUNICATION IN MODERN SOCIETY (3)

Who says what, to whom, with what kinds of interests, within which media, and with what kinds of outcomes. The historical forerunners, development, ownership, and interests of the mass media.

01:920:210. SOCIOLOGY OF MEDICINE AND HEALTH CARE (3)

Dynamics of health behavior. Social organization and development of health care institutions and professions. Issues of cost and quality of health care.

01:920:216. SOCIOLOGY OF WOMEN (3)

Credit not given for both this course and 01:988:216.

Overview of contemporary issues affecting women's lives: family, health, employment, discrimination, poverty. The women's movement and the antimovement backlash.

01:920:218. SOCIOLOGY OF EDUCATION (3)

Credit not given for both this course and 01:920:345.

Focus on elementary and secondary education. Education and class systems; education and social change; alternative schools.

01:920:222. CRIMINOLOGY (3)

Crime and the criminal in modern society. Theories regarding causes of crime, methods of treatment, and preventive programs.

01:920:227. POPULATION AND SOCIETY (3)

Study of population dynamics: causes and consequences of population explosions; societal factors such as baby bust, aging, migration, family (abortion, teenage pregnancy), residential segregation, income distribution.

01:920:248. SOCIOLOGY OF SPORTS (3)

Sociological perspective on sports. Topics include mobility through sports, stratification in sports, deviance and violence within sports, and racial and gender inequalities in sports. Examples illustrate common sociological concepts.

01:920:270. SOCIOLOGY OF THE THIRD WORLD (3)

Development, underdevelopment, imperialism, and mutual effects of these processes between third-world areas and dominant industrial nations. Case materials drawn from Latin America, Asia, and Africa.

01:920:272. SOCIOLOGY OF THE FAMILY (3)

Credit not given for both this course and 01:988:272.

Family as a social institution: family formation and dissolution, life in families, varieties of family experiences, the future of the family.

01:920:280. COLLECTIVE BEHAVIOR AND SOCIAL MOVEMENTS (3)

Analysis of spontaneous and organized efforts to promote or resist social change. Cases from movements such as temperance, civil rights, religious cults, youth, and women's movements.

01:920:281. SOCIOLOGY OF SOCIAL WELFARE (3)

Development and current organization and operation of social welfare systems.

01:920:283. INDIVIDUAL AND SOCIETY (3)

Relations between social structure and psychological structure; processes of socialization; interaction of biological, situational, and social factors on personality and behavior.

01:920:290. POLITICAL SOCIOLOGY (3)

Bases and structure of power in modern societies: political socialization, ideology, political parties, movement organizations. Forms of participation linked to social change.

01:920:291,292. TOPICS IN SOCIOLOGY (3,3)

Special topics in sociology, to be determined each time the courses are offered.

01:920:298. SOCIOLOGY HONORS SEMINAR (3)

Enrollment by invitation of department only.

Selected topics in sociology. Content varies from term to term.

01:920:303. SOCIAL GERONTOLOGY (3)

Prerequisite: Introductory Sociology.

Social aspects of aging and old age. Analysis of public policy, social roles, and population characteristics of the elderly, including variations by sex, class, and race.

01:920:304. SOCIOLOGY OF DEVIANT BEHAVIOR (3)

Prerequisite: Introductory Sociology.

Major forms of social deviance, theories accounting for them, and societal responses to them.

01:920:306. RACE RELATIONS (3)

Prerequisite: Introductory Sociology.

Dynamics of U.S. race relations seen in theoretical and historical perspective; significance of racial domination-subordination in world context; current issues.

01:920:307. SOCIOLOGY OF MENTAL ILLNESS (3)

Prerequisite: Introductory Sociology.

Social and cultural variations in the definitions, causes, and treatment of mental illness. Analysis of institutions and professions dealing with mental illness.

01:920:311. INTRODUCTION TO SOCIAL RESEARCH (4)

Prerequisite: 01:920:101 or permission of instructor.

Major methods and techniques of social research: various types of research design, sampling, methods of data gathering, analysis and interpretation of research findings.

01:920:312. COMPUTER ANALYSIS OF SOCIAL SCIENCE DATA (4)

Prerequisite: 01:920:101 or permission of instructor.

Introduction for social science majors to computer data processing and analysis. Individually designed projects. Emphasis on logical, nonmathematical explanations of techniques and procedures.

01:920:313. DEVELOPMENT OF SOCIOLOGICAL THEORY (4)

Prerequisite: 01:920:101 or permission of instructor.

Intensive study of sociological classics by such 19th- and early 20th-century theorists as Marx, Durkheim, Weber, Simmel, and Veblen who have influenced subsequent work in sociology.

01:920:314. CONTEMPORARY SOCIOLOGICAL THEORIES (4)

Prerequisite: 01:920:101 or permission of instructor.

Survey of major systems of sociological thought of the last 50 years. Application to contemporary social issues.

01:920:315. ORGANIZATIONS AND BUREAUCRACIES (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Sociological analysis of public and private organizations and bureaucracies in the modern world, with attention to formal and informal structures, power, careers, status systems, and organizational change. Case materials from government, universities, business.

01:920:319. SOCIOLOGICAL APPROACHES TO SOCIAL PSYCHOLOGY (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Topics include interpersonal exchange, cognitive consistency, conceptions of justice, small groups, friendship networks, social support networks, and techniques for analyzing networks. Topics vary each term; consult department.

01:920:321. URBAN DEVELOPMENT AND COMMUNITY CHANGE (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Historical development of the contemporary community form. Emergence of modern patterns of urban life.

01:920:323. SOCIOLOGY OF CHILDHOOD AND ADOLESCENCE (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Study of social interaction during childhood and adolescence; emphasis on social interaction in various types of families and peer groups.

01:920:324. SOCIOLOGY OF GENDER (3)

Prerequisite: One of 01:920:311, 312, 313, 314. Credit not given for both this course and 01:988:324.

Study of sources, maintenance, consequences, and change of men's and women's roles in society. Cultural, social, political, economic, and psychological perspectives.

01:920:326. SOCIOLOGY OF COMMUNITIES (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Study of villages, towns, cities, suburbs, and metropolitan areas. Their social problems, organization, and change.

01:920:331. SOCIOLOGY OF INDUSTRY (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Industrialism and industrialization; development of work, the labor force, and careers. Unions, management, and industrial relations. Worker participation in management and other alternative work arrangements.

01:920:332. SOCIAL INEQUALITIES (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Facts and theories of unequal distribution of income, honor, prestige, life chances, opportunities, social mobility, status attainment. Implications for social integration and conflict.

01:920:345. EDUCATION AND SOCIETY (3)

Prerequisite: One of 01:920:311, 312, 313, 314. Credit not given for both this course and 01:920:218.

Organization and functions of school systems; differential opportunities and stratification; educational developments as effects and causes of social change; community conflict; internal organization of schools.

01:920:349. LAW AND SOCIETY (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

How social forces affect law and how law affects society. The relationships among legal and other institutions in society. The roles of lawyers, judges, and juries.

01:920:353. SOCIOLOGY OF HOUSING AND THE BUILT ENVIRONMENT (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Social and cultural influence on housing and urban design and the reciprocal impact of the built environment on social organization, interaction, and personality.

01:920:354. THIRD-WORLD WOMEN (3)

Prerequisite: One of 01:920:311, 312, 313, 314. Credit not given for both this course and 01:988:354.

Comparative analysis of objective conditions and subjective experiences of women in Africa, Asia, Latin America, and of third-world women in the United States and other industrialized nations.

01:920:359. ENVIRONMENTAL SOCIOLOGY (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Interaction between people and the environment, with emphasis on such problems as air and water quality, energy, and land use.

01:920:361. SOCIOLOGY OF DRUG USE (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Causes and extent of illegal drug use, nature and effectiveness of law enforcement, treatment-oriented efforts to control drugs, and the criminalization and decriminalization of drugs.

01:920:362. OPPRESSION AND POLITICAL PROTEST (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Origins, dynamics, and control of protest. Liberation, revolutionary, and reform movements by racial and ethnic minorities, the poor, and women.

01:920:363. SOCIOLOGY OF WORK AND OCCUPATIONS (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Meaning of work; occupational development and socialization; occupations and careers; social control of work; occupational cultures and lifestyles; relations between occupations.

01:920:375. ECONOMIC SOCIOLOGY (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Analysis of economic institutions from a sociological perspective. Historical and contemporary viewpoints drawing on material from developed and underdeveloped, capitalist, and state socialist societies.

01:920:393. TOPICS FOR SOCIOLOGICAL ANALYSIS (3)

Prerequisite: One of 01:920:311, 312, 313, 314.

Topics vary each term. Consult department.

01:920:398. SOCIOLOGY HONORS SEMINAR (3)

Prerequisite: One of 01:920:311, 312, 313, 314. Enrollment by invitation of department only.

Selected topics in sociology. Content varies from term to term.

01:920:399. SERVICE LEARNING INTERNSHIP (1)

Prerequisite: One of 01:920:311, 312, 313, 314. Corequisite: Must be taken in conjunction with a designated CASE (Citizenship and Service Education) course offered in the sociology department.

One-credit community service placement in sociology.

01:920:406. SOCIOLOGY OF RELIGION (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Orientations to the superempirical; the interaction of religious beliefs and institutions with secular society. Classical and contemporary theories and data.

01:920:408. SOCIOLOGY OF AMERICAN JEWISH RELIGIOUS MOVEMENTS (3)

Prerequisites: Two of 01:920:311, 312, 313, 314. Credit not given for both this course and 01:563:408.

Denominational patterns of America's Jews; religious patterns including Hasidism, fundamentalism-secularization, women's roles, intermarriage, and intra- and interreligious patterns.

01:920:410. SOCIOLOGY OF ALCOHOL PROBLEMS (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Social, social-psychological, and physiological functions of alcohol; relations to institutional values; efforts at social control.

01:920:428. SOCIOLOGY OF CITIES AND SUBURBS (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Suburban growth; implications for cities. Job location, housing, nature of public spaces, neighborhoods, environment, growth itself. Responses by city and suburban residents.

01:920:434. SOCIAL SCIENCE AND PUBLIC POLICY (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Federal government and policy making; roles of foundations, private agencies, and policy sciences. Data bank and social indicators in the study of policy. Game theory and policy making.

01:920:435. IMMIGRANT MINORITIES IN THE UNITED STATES (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Study of migrations to the United States and their impact; detailed consideration of pluralist versus assimilationist hypotheses about the effects of immigration; effects of ethnicity on U.S. culture. Case study materials on various ethnic Americans.

01:920:438. SOCIOLOGY OF AGE (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Age stratification and society; conflict and cooperation among young, middle-aged, and old; aging, succession of generations, and social change. Implications for public policy and professional practice.

01:920:440. SEXUALITY AND SOCIETY (3)

Prerequisites: Two of 01:920:311, 312, 313, 314. Credit not given for both this course and 01:988:440.

Description of sexual conduct and variation; patterns of sexual behavior and attitudes analyzed in terms of social, historical, and cross-cultural antecedents and consequences.

01:920:442. MASS MEDIA AND POPULAR CULTURE (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Analysis of popular culture, with stress on propaganda techniques and myth disseminations. Touches on such topics as romantic love, pop music, and sports.

01:920:461,462. SOCIOLOGY OF SELECTED INSTITUTIONS (3,3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Intensive analysis of such institutions as prisons, hospitals, mental hospitals, schools. Different institutions considered in different terms.

01:920:464. ART AND SOCIETY (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Analysis of uses of art in modern society. Organization of artists, producers, critics, and audiences in the different art worlds. "High" art and "popular" art.

01:920:470. SEMINAR IN THE SOCIOLOGY OF GENDER (3)

Prerequisites: Two of 01:920:311, 312, 313, 314. Credit not given for both this course and 01:988:470.

Social relations and structures, ideas and practices that define women and men. Emphasis on contemporary theories and research findings.

01:920:489. THE AMERICAN WORKING CLASS (3)

Prerequisites: Two of 01:920:311, 312, 313, 314.

Developments among blue- and white-collar workers and working-class movements. Emphasis on implications for the American political system.

01:920:491,492. ADVANCED SEMINAR IN SOCIOLOGY (3,3)

Prerequisites: Two of 01:920:311, 312, 313, 314. Open only to advanced undergraduates by permission of instructor.

Topics vary by section.

01:920:493,494. INDEPENDENT STUDY IN SOCIOLOGY (3,3)

Prerequisites: Two of 01:920:311, 312, 313, 314; permission of department.

01:920:495. RESEARCH IN SOCIOLOGY (3)

Prerequisites: Two of 01:920:311, 312, 313, 314; permission of department.

01:920:497,498. HONORS IN SOCIOLOGY (3,3)

Prerequisites: Two of 01:920:311, 312, 313, 314; permission of department.

SOUTH ASIAN STUDIES 925

South Asian Studies Program, Faculty of Arts and Sciences

Web site: <http://southasia.rutgers.edu>

Program Director: Laura M. Ahearn

Program Faculty:

Michael P. Adas, *History; Ph.D., Wisconsin*

Laura Ahearn, *Anthropology; Ph.D., Michigan*

Sanjib Bhuyan, *Agricultural, Food, and Resource Economics; Ph.D., Connecticut*

Ethel Brooks, *Women's and Gender Studies and Sociology; Ph.D., New York*

Edwin F. Bryant, *Religion; Ph.D., Columbia*

Indrani Chatterjee, *History; Ph.D., London*

Manoranjan Dutta, *Economics; Ph.D., Pennsylvania*

Leela Fernandes, *Women's and Gender Studies and Political Science;*

Ph.D., Chicago

Sumit Guha, *History; Ph.D., Cambridge*

Michael Moffatt, *Anthropology; Ph.D., Chicago*

Jawid Mojaddedi, *Religion; Ph.D., Manchester*

Thomas Myladil, *Religion; Ph.D., Fordham*

Sonali Perera, *English; Ph.D., Columbia*

Jasbir Puar, *Women's and Gender Studies; Ph.D., California (Berkeley)*

Carl Pray, *Agricultural, Food, and Resource Economics; Ph.D., Pennsylvania*

Janet Walker, *Comparative Literature; Ph.D., Harvard*

Steven F. Walker, *Comparative Literature; Ph.D., Harvard*

Minor Program

The program in South Asian studies provides students with a strong grounding in the study of South Asia and diasporic South Asian communities. The interdisciplinary minor consists of a minimum of six courses (totaling at least 18 credits) from the following list of approved courses. One of these courses must be 01:508:230 History of South Asia–600 B.C.E. to 1950 C.E., a survey course, or equivalent. No more than two of the six courses can come from any one discipline (cross-listed courses can only be counted once, but in either discipline).

Courses approved for minor requirements include:

01:070:244	Anthropology of South Asia (3)
01:070:389	Ethnography of Gender in South Asia (3)
01:098:321	Interdisciplinary Topics in South Asia (3)
01:190:431	Sanskrit I (3)
01:190:432	Sanskrit II (3)
01:195:243	Introduction to the Literatures of India (3)
01:195:249	Modern Literatures of India (3)
01:220:357	Economics of India (3)
01:220:359	Economics of Asia (3)
01:450:341	South Asia and the Middle East (3)
01:505:101	Elementary Hindi (4)
01:505:102	Elementary Hindi (4)
01:505:201	Intermediate Hindi (3)
01:505:202	Intermediate Hindi (3)
01:508:230	History of South Asia–600 B.C.E. to 1950 C.E. (3)
01:508:240	Classical Asia (3)
01:508:330	Early Modern South Asia, 1500–1800 (3)
01:508:331	Women in South Asian History (3)
01:508:332	Slavery in South Asian History (3)
01:508:339	Asia and Africa since 1945 (3)
01:508:391	South Asia over Four Millennia (3)
01:508:391	Contemporary South Asia, 1944–Present (3)
01:685:103	Elementary Persian (4)
01:685:104	Elementary Persian (4)
01:685:203	Intermediate Persian (4)
01:685:204	Intermediate Persian (4)
01:685:303	Advanced Persian (4)
01:685:304	Advanced Persian (4)

- 01:730:368 Hindu Philosophy (3)
- 01:730:369 Buddhist Philosophy (3)
- 01:730:374 Islamic Philosophy and Mysticism (3)
- 01:840:203 Islamic Scriptures (3)
- 01:840:204 Hindu Scriptures (3)
- 01:840:205 Buddhist Scriptures (3)
- 01:840:211 Religions of the Eastern World (3)
- 01:840:322 Hinduism (3)
- 01:840:323 Buddhism (3)
- 01:840:326 Islam (3)
- 01:840:345 Hindu Gurus in West (3)
- 01:840:357 Krishna (3)
- 01:840:358 Bhagvad Gita (3)
- 01:840:368 Hindu Philosophy (3)
- 01:840:369 Buddhist Philosophy (3)
- 01:840:374 Islamic Philosophy (3)
- 01:988:310 South Asian Feminisms (3)
- 01:988:389 Ethnography of Gender in South Asia (3)

The following courses vary in their South Asian component. Students should discuss course content with the instructor and obtain prior permission from Laura M. Ahearn, Director, South Asian Studies Program (ahearn@rci.rutgers.edu) in order for these courses to count toward the minor in South Asian studies.

- 01:070:291–294 Topics in Anthropology (1.5,1.5,1.5,1.5)
- 01:070:320 Diaspora, Multiculturalism, and Ethnicity in the United States (3)
- 01:098:444 Seminar on Asian Societies (3)
- 01:790:315 Politics and Culture (3)
- 01:790:424 Gender and Political Economy (3)
- 01:840:325 Prophet Mohammed (3)
- 01:840:356 Islamic Mysticism (3)
- 01:840:393 Topics in the Study of Religion (3)

SPANISH 940

Department of Spanish and Portuguese, Faculty of Arts and Sciences

Web Site: <http://span-port.rutgers.edu>

Chairperson: Thomas M. Stephens

Professors:

Carl Kirschner, B.A., *SUNY (Buffalo)*; M.A., *Rhode Island*; Ph.D., *Massachusetts*
 Tomás Eloy Martínez, B.A., *Universidad Nacional de Tucumán (Argentina)*;
 M.A., *Université de Paris VII*
 Graciela Montaldo, B.A., Ph.D., *Buenos Aires (Argentina)*
 Margaret H. Persin, B.A., *Cleveland State*; M.A., Ph.D., *Indiana*
 Thomas M. Stephens, B.A., M.A., *South Carolina*; Ph.D., *Michigan*
 Phyllis Zatlin, B.A., *Rollins College*; M.A., Ph.D., *Florida*

Associate Professors:

Mary Gossy, B.A., *Bryn Mawr College*; M.A., Ph.D., *Harvard*
 Jorge Marccone, B.A., *Pontificia Universidad Católica del Perú*; M.A., Ph.D., *Texas*
 Susan Martin-Márquez, B.A., M.A., *Chicago*; Ph.D., *Pennsylvania*
 Carlos Raúl Narváez, B.A., *CUNY (Hunter College)*; M.A., *New York University in Madrid*; Ph.D., *Columbia*
 Dámaris Otero-Torres, B.A., M.A., *Syracuse*; Ph.D., *California (San Diego)*
 Marcy Schwartz, B.A., *Syracuse*; M.A., Ph.D., *Johns Hopkins*
 Adolfo Snaidas, B.A., *CUNY (Brooklyn College)*; M.A., *Kansas*; Ph.D., *Rutgers*

Assistant Professors:

José Camacho, *Licenciatura, Complutense de Madrid (Spain)*; M.A., Ph.D., *Southern California*
 Yeon-Soo Kim, B.A., M.A., *SUNY (Binghamton)*; M.A., M.Phil., Ph.D., *Yale*
 Liliana Sánchez, B.A., *Pontificia Universidad Católica del Perú*; M.A., Ph.D., *Southern California*
 Camilla Stevens, B.A., *Tulane*; M.A., *New Mexico*; Ph.D., *Kansas*

Introductory Courses and Placement

Students who have already studied Spanish or who speak Spanish in the home and wish to continue the language are assigned to courses according to their achievement on a placement test. Native speakers of Spanish may not take elementary, intermediate, or conversation courses. Unless given departmental permission to begin course work at 01:940:215 or above, they should take the sequence of courses designated for native speakers. Laboratory programs are an integral part of most language courses. Language laboratories are located on the College Avenue, Douglass, and Livingston campuses.

Major Requirements

Students majoring in Spanish must choose one of two options: Literary and Cultural Studies, or Spanish Linguistics. Whenever courses are taught in a language other than Spanish, they will count for the Spanish major if all written work is done in Spanish. Students are responsible for consulting the catalog course listing for prerequisites and special conditions prior to registration. All major programs must be reviewed and approved by a departmental adviser.

Option in Literary and Cultural Studies

This option consists of a minimum of 36 credits given in the Spanish language at the 200–400 level completed with a grade of C or better in each course. The following credits are required unless students successfully complete an advanced placement test or receive special permission for an exception from the department:

No more than 11 credits at the 200 level from among:

01:940:201, 202 or 203, 204; 215 or 217; or 240.

15 credits at the 300 level: 3 credits from 01:940:325, 326; 3 credits from 01:940:331, 332; 3 credits from 01:940:333, 334; 3 credits from 01:940:335, 336; and 3 credits from 01:940:361, 362, 363, 364.

6 credits at the 400 level, of which at least 3 credits must be in literature.

In order to complete the remaining credits toward the total, students must choose electives at the 300 or 400 level.

Option in Spanish Linguistics

This option consists of a minimum of 37 credits at the 200–400 level completed with a grade of C or better in each course (except for 01:940:499). The following credits are required unless students receive permission for an exception from a departmental adviser:

15 credits in Spanish (940) 200–400 level courses, 9 of which must be in Spanish (940) literature and culture

21 credits in linguistics, at least 15 of which must be in Spanish (940) and up to 6 of which may be in extradisciplinary courses approved by a departmental adviser; the Spanish linguistics courses include: 01:940:361, 362, 363, 364, 365, 366, 416, 417, 419, 420, 421, 422, and 488

1 credit in oral proficiency 01:940:499

Minor Requirements

A minor in Spanish consists of a minimum of 18 credits of courses given in the Spanish language completed with a grade of C or better in each course. Whenever courses are taught in a language other than Spanish, they will count for

the Spanish minor if all written work is done in Spanish. Of the 18 credits, 9 credits must be in literature in Spanish (940), and 9 credits must be taken at the 300 level or above. All minor programs must be approved by a departmental adviser.

Departmental Honors Program

To be eligible for graduation with honors, departmental majors must maintain a cumulative grade-point average of 3.5 or better in their major courses, and 3.25 overall. Students are admitted to the departmental honors program by selection of the honors committee. The honors project is two terms in duration (3 credits in each term) and may focus on either the language/linguistics or the literature/civilization of the Spanish/Portuguese/Catalan-speaking world. Prior to beginning an honors project in the language/linguistics option, the student must take 01:940:325 and three terms of Spanish linguistics courses. One additional language/linguistics course and one additional 400-level course are required prior to graduation. Prior to beginning an honors project in the literature/civilization option, the student must take two courses numbered 01:940:331 through 336 and one 400-level literature course in Spanish other than independent study. Two additional 400-level literature/civilization courses are required prior to graduation. The student must present the honors project for an oral defense before a committee that is assembled by the project director in consultation with the candidate. Departmental honors are awarded to those students maintaining a grade-point average of 3.5 in the major and completing the requirements for the Henry Rutgers Honors Thesis, the Mabel Smith Douglass Honors Project, the Paul Robeson Project, or the University College Honors Program. Interested students are encouraged to apply at the department toward the end of their junior year. More detailed information is available in the departmental office.

Study Abroad

Rutgers University sponsors a Junior Year in Mexico; a Junior Year in Spain; and a Summer Study in Spain, Peru, or Brazil. Information on these and other study-abroad opportunities is available in the department office.

Certificate of Proficiency in Spanish-English and English-Spanish Translation

This certificate is offered to students who complete 19–21 credits in the following courses: 01:940:363 (or 419), 364, 401, 402, 471,* 475, 476,† 477,† 478 (or 479), 486,† and 487.† A 3.5 or better cumulative grade-point average for the entire 19–21 credit sequence is required, with a minimum of *B* in all courses (except 01:940:401 and 402, which require *B+* or better). For further information contact the department.

Spanish Major/Global Studies Certificate

Requirements

1. 36 credits toward the Spanish major.
2. Eight courses, with a grade of *C* or above in each course, to be chosen from among options a, b, c, or d listed

* Flexible assignment based on individual student background. Course may be waived for practicing translators or interpreters.

† Courses offered in Summer Session. With prior approval, may be counted in lieu of core course.

below. No more than two courses may be used to fulfill both the Spanish major and the global studies certificate. The student's entire program must be approved by a departmental adviser.

- a. *The Hispanic World*. Students must choose a balance of courses between Spanish America and Spain within each of the following groups:

Group 1 (Economics, History, Political Science): Four courses to be drawn from Africana studies, economics, history, Latin American studies, political science, Puerto Rican and Hispanic Caribbean studies, sociology, or other related departments or programs (including courses taken abroad).

Group 2 (Studies on Culture): Four courses to be drawn from Africana studies, anthropology, archaeology, art history, Latin American studies, Puerto Rican and Hispanic Caribbean studies, Spanish and Portuguese, or other related departments or programs (including courses taken abroad).

- b. *The Luso-Brazilian World*. Students must choose a balance of courses between Brazil and Portugal within each of the groups mentioned in option a above.
 - c. *Latin America*. Students must choose a balance of courses between Spanish American countries and non-Spanish-speaking countries within each of the groups mentioned in option a above.
 - d. *Iberian Peninsula*. Students must choose a balance of courses between Spain and Portugal within each of the groups mentioned in option a above.
3. In addition to the eight courses required above, an exit seminar involving a research project (15 to 20 pages) on a topic of international or global scope. The seminar also requires participation in extracurricular global programs events. The seminar must be taken during the senior year or year of graduation.
 4. An international experience of one year during the junior year in an appropriate country or countries approved by a departmental adviser. A one-term option or summer option will be considered under extraordinary circumstances.

Teacher Certification

Teacher certification is available to students accepted into the education program who complete a Spanish major. For additional requirements and further information, contact the Graduate School of Education.

Spanish Language Houses

The Casa Hispánica on the Douglass campus and the Spanish Interest Section of the dormitories on the College Avenue campus are open to qualified students. For additional information, visit the program's web site.

Courses in English

01:940:160. SPANISH IN THE WORLD (1.5)

Taught in English. Not for major or minor credit.

Current issues in the language, literature, and culture of the Spanish-speaking world. Analysis of topics such as cultural identity, language contact, major literary authors, or historical implications of colonization.

01:940:240. THE LUSO-HISPANIC DIALOGUE: MULTIPLE PERSPECTIVES (3)

Credit not given for both this course and 01:810:240. Course taught in English, but knowledge of Spanish and/or Portuguese is necessary. Course will count for the Spanish major or minor if all written work is done in Spanish.

Relationship between the Portuguese-speaking and Spanish-speaking worlds as it manifests itself culturally, linguistically, and historically.

01:940:241,242. MASTERPIECES OF HISPANIC LITERATURE IN TRANSLATION (3,3)

Reading and interpretation of outstanding Hispanic writers.

01:940:303. LANGUAGE AND U.S. LATINO/A CULTURE (3)

Credit not given for both this course and 01:836:303. Taught in English. Course will count for the Spanish major or minor if all written work is done in Spanish.

Interrelation of diverse linguistic traits and practices in the production of U.S. Latino/a culture. Emphasis on Chicano/a, Mexican-American, Nuyorican / Puerto Rican, Dominican-American, Cuban, and Cuban-American contributions, in the context of historical and political processes.

01:940:345. SPANISH FILM—ENGLISH (3)

Not for major credit. Credit not given for both this course and 01:940:346.

Development of the cinema in Spain from its origins to present. Emphasis on close analysis and contextual understanding of individual films.

01:940:347. LATIN AMERICAN CINEMA—ENGLISH (3)

Prerequisite: One course in literature at the 200 level or above. Not for major credit. Credit not given for both this course and 01:940:348.

Film as a major expression of the culture of Latin America, including Brazil. Viewing and analysis of films by directors such as dos Santos, Rocha, Gutierrez Alea, and Littin. Both fiction films and documentaries.

01:940:445. CERVANTES IN TRANSLATION (3)

Critical study of Cervantes. *Don Quixote*, selected *Exemplary Novels*, and the *Interludes*.

01:940:446. CONTEMPORARY LATIN AMERICAN LITERATURE IN TRANSLATION (3)

Selected major authors of present-day Spanish America including Borges, Carpentier, Fuentes, Paz, García Márquez.

01:940:452. READINGS IN U.S. LATINO/A LITERATURE AND CULTURE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department. When taught in English, course will count for the Spanish major or minor if all written work is done in Spanish.

Study of recent texts produced by and about Latino/as in the United States. Examination of issues of exile, integration and assimilation, political presence, and nationalism.

Courses in Spanish**01:940:100. INTENSIVE ELEMENTARY SPANISH (7)**

Prerequisite: Permission of department. Credit not given for both this course and 01:940:101-102.

For students with little or no previous study of Spanish. Intensive practice of basic skills in speaking, understanding, reading, and writing. Integrated laboratory session.

01:940:101-102. ELEMENTARY SPANISH (4,4)

Credit not given for both these courses and 01:940:100. Not open to students who have had two or more years of secondary school Spanish.

For students with little or no previous study of Spanish. Designed to develop basic skills in speaking, understanding, reading, and writing. Integrated laboratory sessions.

01:940:103,104. ELEMENTARY SPANISH LABORATORY (1,1)

Corequisites: 01:940:101 (for 103); 102 or 121 (for 104).

Instructor-guided laboratory practicum based on intensive use of media and designed for the improvement of aural/oral skills.

01:940:105. SPANISH FOR READING KNOWLEDGE (3)

Does not satisfy prerequisite for 01:940:131-132 or 139.

Development of reading skills for advanced undergraduate and graduate students who wish to acquire a basic competence in the language for research purposes. Texts chosen from humanities, social sciences, and natural sciences.

01:940:121. SPANISH REVIEW AND CONTINUATION (4)

Not open to students who have taken 01:940:100 or 101-102. Open only by placement exam or permission of department to students who have had two or more years of secondary school Spanish.

Review of basic structures and further development of Spanish language skills.

01:940:130. INTENSIVE INTERMEDIATE SPANISH (7)

Prerequisite: Permission of department. Credit not given for both this course and 01:940:131-132.

Intensive study and practice of specific areas of grammar, linguistic structure, and style. Selected readings of modern authors with composition and class discussion.

01:940:131-132. INTERMEDIATE SPANISH (4,4)

Prerequisite: 01:940:100 or 101-102 or 121, or permission of department. Credit not given for both these courses and 01:940:130.

Study and practice of specific areas of grammar, linguistic structure, and style. Selected reading of modern authors, with composition and class discussion.

01:940:139. SPANISH FOR NATIVE SPEAKERS I (3)

Prerequisite: Permission of department. Credit not given for both this course and 01:940:130 or 131-132.

Study of specific areas of grammar and orthography. Practice in oral communication and grammar application.

01:940:201. SPANISH FOR NATIVE SPEAKERS II (3)

Prerequisite: 01:940:139 or equivalent. Credit not given for both this course and 01:940:203.

Continued study of specific areas of Spanish grammar through translation and compositions. Development of reading skills and vocabulary building through newspapers and magazines.

01:940:202. CULTURE AND COMPOSITION FOR NATIVE SPEAKERS (3)

Prerequisite: 01:940:201 or permission of department. Credit not given for both this course and 01:940:204.

Introduction to culture and civilization in the Hispanic world from prehistoric times to the present. Development of reading skills and expository writing abilities.

01:940:203. SPANISH CONVERSATION AND COMPOSITION (3)

Prerequisites: 01:940:130 or 131-132 or equivalent. Not open to native speakers or other students already conversant in the language.

Designed to develop oral fluency and writing skills in a variety of contexts. Conversation, vocabulary building, oral reports, fundamentals of expository writing.

01:940:204. CULTURE AND COMPOSITION (3)

Prerequisite: 01:940:203 or permission of department. Not open to native speakers or other students already conversant in the language.

Introduction to culture and civilization in the Hispanic world from prehistoric times to the present. Development of reading skills and expository writing abilities.

01:940:205. SPANISH LAB FOR ORAL PROFICIENCY I (1)

Pre- or corequisite: 01:940:204. Not open to native speakers.

Instructor-guided laboratory practicum for honing oral proficiency. Practice in aural/oral skills and communication styles. Evaluation of pronunciation and fluency.

01:940:215. INTRODUCTION TO HISPANIC LITERATURE (3)

Prerequisite: 01:940:202 or 204 or permission of department. Credit not given for both this course and 01:940:217.

Introduction to the fundamental concepts of the study of Hispanic literature. Emphasis on genre and textual analysis of selected works.

01:940:216. HISPANIC LITERATURE: INTRODUCTION TO LITERARY CONCEPTS (3)

Prerequisite: 01:940:215 or equivalent. Credit not given for both this course and 01:940:217.

Introduction to the fundamental concepts of the study of literature; development of a critical approach to Hispanic literature through intensive study of selected modern works from Spain and Spanish America.

01:940:217. INTRODUCTION TO HISPANIC LITERATURE: HONORS (3)

Prerequisites: 01:940:202 or 204 and permission of department. For honors students and those invited by the department. Credit not given for both this course and 01:940:215.

Introduction to fundamental concepts of the study of literature and to the major literary periods of the Hispanic world. Study of representative authors and texts.

06:090:287,288. THE SPANISH LANGUAGE EXPERIENCE (1.5,1.5)

Limited to and required of residents of the Douglass House. May not be used in satisfaction of major requirements. Course may be repeated.

Development of active language skills through formal instruction and the daily experience of foreign language immersion in the varied activities of the house.

01:940:299. LANGUAGE HOUSE RESIDENCE (E3)

Prerequisite: Permission of department. Graded satisfactory or unsatisfactory.

Residence in a Spanish Interest Section of the dormitories on the College Avenue campus, during which students, under the guidance of a resident counselor, speak only Spanish. Group activities.

01:940:313. ADVANCED SPANISH CONVERSATION AND CONTEMPORARY ISSUES (3)

Prerequisite: 01:940:204 or equivalent. Not open to native speakers or students returning from a junior year in Mexico or other Spanish-speaking country. Not for major credit.

Intensive class discussions, oral reports, and debates based on cultural materials taken from newspapers, journals, radio, television, and films.

01:940:317,318. HISPANIC CULTURE TODAY (1.5,1.5)

Prerequisite: 01:940:215 or equivalent.

Contemporary cultural, social, and political life in Spanish-speaking countries with emphasis on the daily experience. Field trips.

01:940:325. ADVANCED GRAMMAR AND COMPOSITION (3)

Prerequisite: 01:940:202 or 01:940:204 or equivalent.

Intensive grammatical study of selected Spanish forms and structures; vocabulary building and composition.

01:940:326. ADVANCED LANGUAGE WORKSHOP (3)

Prerequisite: 01:940:325 or equivalent or permission of department.

Refine reading and writing skills and oral fluency. Detailed rhetorical analysis and discussion of writing techniques using texts taken from all media.

01:940:327. SPANISH LAB FOR ORAL PROFICIENCY II (1)

Pre- or corequisite: 01:940:325. Not open to native speakers.

Advanced instructor-guided laboratory work for perfecting oral proficiency. Practice in communication styles. Evaluation of fluency in preparation for oral proficiency exam.

01:940:331,332. LITERATURE AND CULTURE OF THE HISPANIC CARIBBEAN (3,3)

Prerequisite: 01:940:215 or 217 or permission of department. Credit not given for these courses and 01:836:266.

Reading and discussion of representative works from the Hispanic Caribbean with emphasis on their cultural content and elements reflecting literary periodization.

01:940:333,334. LITERATURE AND CULTURE OF SPANISH AMERICA (3,3)

Prerequisite: 01:940:215 or 217 or permission of department.

Reading and discussion of representative works from Spanish America with emphasis on their cultural content and elements reflecting literary periodization.

01:940:335,336. LITERATURE AND CULTURE OF SPAIN (3,3)

Prerequisite: 01:940:215 or 217 or permission of department.

Reading and discussion of representative works from Spain with emphasis on their cultural content and elements reflecting literary periodization.

01:940:346. SPANISH FILM (3)

Prerequisite: One term of 300-level literature in Spanish or permission of the department. Credit not given for both this course and 01:940:345.

Development of cinema in Spain from its origins to present. Emphasis on close analysis and contextual understanding of individual films.

01:940:348. LATIN AMERICAN CINEMA (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department. Credit not given for both this course and 01:940:347.

Film as a major expression of the culture of Latin America, including Brazil. Viewing and analysis of films by directors such as dos Santos, Rocha, Gutierrez Alea, and Littin. Both fiction films and documentaries.

01:940:360. SPANISH FOR COMMERCE (3)

Prerequisites: 01:940:325, 326, or equivalent.

Fundamental principles governing commercial organization in Spanish-speaking countries. Practical business correspondence. Students taking this course have the option to take a special exam for the Diploma in Spanish Commerce given by the Chamber of Commerce of Madrid.

01:940:361. INTRODUCTION TO THE STUDY OF LANGUAGE (3)

Prerequisites: 01:940:325, 326, or equivalent, or permission of department. Credit not given for both this course and 01:615:101.

Review of the different aspects of language from the point of view of its internal organization, relationship with cognitive sciences, and relationship to the world.

01:940:362. SPANISH PHONETICS AND PHONOLOGY (3)

Prerequisites: 01:940:325, 326, or equivalent.

Study of Spanish phonetics in theory and practice. Exercises in transcription. Contrastive analysis of the English and Spanish sound systems.

01:940:363. BILINGUALISM IN THE SPANISH-SPEAKING WORLD (3)

Prerequisites: 01:940:325, 326, or equivalent.

History and theory of Spanish-English bilingualism in the United States and its application in the field. Bilingualism in Spanish America and Spain. Social issues raised by theories of bilingualism.

01:940:364. CONTRASTIVE ANALYSIS IN SPANISH AND ENGLISH (3)

Prerequisites: 01:940:325, 326, or equivalent.

Study of basic notions of morphosyntactic structures (internal structure of words and sentences). Emphasis on differences between Spanish and English.

01:940:365. RESEARCH METHODS IN SPANISH LINGUISTICS (3)

Prerequisite: 01:940:361 or equivalent, or permission of department.

Foundations in research methodology in various linguistic disciplines. Development of skills in tool selection, collection and analysis of data, and ethical concerns.

01:940:366. METHODS OF TEACHING SPANISH (K-12) (3)

Prerequisite: 01:940:361 or equivalent, or permission of department.

Introduction to communicative methods of language teaching and New Jersey standards for world language teaching. Creative approaches to assessment.

01:959:379-380. JUNIOR YEAR IN SPAIN (BA,BA)**01:959:387,388. JUNIOR YEAR IN MEXICO (BA,BA)****01:940:399. SERVICE LEARNING INTERNSHIP (1)**

Corequisite: Must be taken in conjunction with a designated CASE (Citizenship and Service Education) course offered in the Department of Spanish. No more than 3 credits of 01:940:399 may be counted toward the major; none may be counted toward the minor.

Community-service placement in Spanish-related field setting.

01:940:401. ADVANCED TRANSLATION I (3)

Prerequisites: With grades of B+ or better, 01:940:325, 326, and 01:355:101 or equivalent. Students with a minimum of B in each of these three courses must submit a writing sample according to departmental guidelines in order to be considered for admission into the class. Not open to first-year students and sophomores.

Introduction to the theory of translation and guidance in the use of materials essential to the translation process. Intensive practice in the translation of short texts in various fields from Spanish into English and English into Spanish.

01:940:402. ADVANCED TRANSLATION II (3)

Prerequisite: 01:940:401 or equivalent.

Intensive practice in the translation of short texts in various fields from Spanish into English and English into Spanish.

01:940:403,404. CIVILIZATION OF SPANISH AMERICA (3,3)

Prerequisite: One term of 300-level Spanish or permission of department. Credit not given for both these courses and 01:590:401,402.

Main traits of the civilization of Spanish America. Evolution of its social institutions and customs. Representative literary, philosophical, and artistic works.

01:940:405,406. CIVILIZATION OF SPAIN (3,3)

Prerequisite: One term of 300-level Spanish or permission of department.

Main traits of the civilization of Spain. Evolution of its social institutions and customs. Representative literary, philosophical, and artistic works.

01:940:411. CREATIVE WRITING (3)

Prerequisite: One term of 300-level literature in Spanish and permission of the department. Departmental permission subject to the approval of a writing sample.

General practice in the writing of essay, verse, and narrative in the Spanish language.

01:940:415. MEDIEVAL SPANISH LITERATURE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of selected works from the medieval period including the various types of poetry and the development of prose, with emphasis on *El Cid*, *El Libro de Buen Amor*, and *La Celestina*.

01:940:416. FIELD METHODS IN SPANISH LINGUISTICS (3)

Prerequisite: 01:940:361 or equivalent, or permission of department.

Methods and techniques of data collection (observational and experimental). Introduction to electronic compilation of data.

01:940:417. HISTORY OF THE SPANISH LANGUAGE (3)

Prerequisite: 01:940:361 or 362 or 01:615:201 or permission of department.

Development of Spanish from its origins to the present. Settlement history and non-Roman influences in Spain. Evolution of sounds, forms, sentence structures, and words.

01:940:419. DIALECTOLOGY OF THE SPANISH-SPEAKING WORLD (3)

Prerequisite: 01:940:361 or 362 or permission of department.

Study of major dialects in the Spanish-speaking world. Theories of dialectology, geolinguistics, and social dialects as applied to Spanish. Survey of defining phonological, morphological, syntactic, and lexical features of modern dialects in Spain, Spanish America, and the United States.

01:940:420. CURRENT ISSUES IN SECOND LANGUAGE ACQUISITION (3)

Prerequisite: 01:940:361 or 363 or permission of department.

Theory and research in second language acquisition and second language development. Research as linguistic knowledge, as cognitive skill, and as a social and personality mediated process.

01:940:421. SPANISH SYNTAX (3)

Prerequisite: 01:940:364 or equivalent, or permission of department.

Analysis of Spanish syntactic structures using foundations of generative grammar. Development of reasoning and analytical skills. Testing and argument of hypotheses.

01:940:422. SPANISH SEMANTICS (3)

Prerequisite: 01:940:364 or equivalent, or permission of department.

Formal theories of semantics applied to Spanish. Compositional and contextual meaning, conceptual prototypes, metaphors, and representation of lexical meaning.

01:940:423. POETRY OF THE GOLDEN AGE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Spanish poetry of the Renaissance and baroque periods. Garcilaso and the Italianate School; San Juan de la Cruz and the conceptismo and culteranismo.

01:940:424. DRAMA OF THE GOLDEN AGE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Spanish drama from its early manifestations through the baroque period. Reading and discussion of dramatists such as Lope de Vega, Tirso de Molina, Ruiz de Alarcón, and Calderón de la Barca.

01:940:425. PROSE OF THE GOLDEN AGE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of representative works with emphasis on the picaresque novel and Cervantes' novelas ejemplares.

01:940:426. DON QUIXOTE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Critical study of Cervantes' masterpiece within its Golden Age context.

01:940:434,435. NINETEENTH-CENTURY SPANISH LITERATURE (3,3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Reading and discussion of representative works from the neo-classic, romantic, realistic, and naturalistic periods.

01:940:437,438. TWENTIETH-CENTURY SPANISH LITERATURE (3,3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Representative works by authors from the Generation of 98, the Generation of 27, and the post-civil war period.

01:940:440. COLONIAL SPANISH-AMERICAN LITERATURE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of colonial Spanish-American literature. Reading and analysis of representative works.

01:940:441. NINETEENTH-CENTURY SPANISH-AMERICAN LITERATURE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Reading and discussion of representative works from the main literary movements since the wars of independence through the early 1900s (romanticism, regionalism, naturalism, and modernism).

SPANISH

01:940:443. SPANISH-AMERICAN SHORT STORY (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of Spanish-American short story since modernism. Reading and analysis of representative works.

01:940:444. SPANISH-AMERICAN POETRY (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of Spanish-American poetry since modernism. Reading and analysis of representative works.

01:940:447. SPANISH-AMERICAN NOVEL I (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of the Spanish-American novel from modernism through the boom. Reading and analysis of representative works.

01:940:448. SPANISH-AMERICAN NOVEL II (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of the Spanish-American novel; covers post-boom literature. Reading and analysis of representative works.

01:940:449. SPANISH-AMERICAN ESSAY (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of the Spanish-American essay since modernism. Reading and analysis of representative works.

01:940:450. SPANISH-AMERICAN THEATER (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Development of the theater in Spanish America from the colonial period to the present day. Reading and analysis of representative works.

01:940:451. LITERATURE OF LATIN AMERICAN EXILE AND DISPLACEMENT (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of works concerning geographical displacement; focus on political exile from Cuba, the Southern Cone, and other displaced Hispanic communities in the United States.

01:940:452. READINGS IN U.S. LATINO/A LITERATURE AND CULTURE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department. When taught in English, course will count for the Spanish major or minor if all written work is done in Spanish.

Study of recent texts produced by and about Latino/as in the United States. Examination of issues of exile, integration and assimilation, political presence, and nationalism.

01:940:460. RACE, CLASS, AND ETHNICITY IN LATIN AMERICA (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department. Credit not given for both this course and 01:590:460.

Investigation of racioethnic conflicts and racial formation and renegotiation in Latin America through literary and nonliterary sources. Consideration of class, racism, miscegenation, marginalization, and ethnonym.

01:940:461. LITERACY AND ORALITY IN HISPANIC LITERATURE AND CULTURE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of the relationship of writing to speech, oral tradition, and / or oral history in the context of Spanish, Spanish American, and / or U.S. Latino / a cultures.

01:940:462. ENVIRONMENT AND LITERATURE IN HISPANIC CULTURE (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Study of the relationship of literature to space, place, and landscape. Focus on ideas of nature and / or the city chosen each term.

01:940:465. SPAIN IN AFRICA/AFRICA IN SPAIN: CULTURAL REPRESENTATIONS AND HISTORICAL LEGACY (3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Examination of the historical and cultural representation between Spain and Africa in a wide range of literary, artistic, and cinematographic texts.

01:940:470. INTERNSHIP IN SPANISH FOR COMMERCE (3)

Rec. 1 hr., fieldwork 6 hrs., plus one week of fieldwork during January break.

Prerequisites: 01:940:360 with a grade of B or better; 01:940:401 and 402 taken at Rutgers–New Brunswick/Piscataway with a grade of B or better. Open only to seniors.

Supervised training in an appropriate business firm; weekly seminar and discussion of situations and practices arising from internship experiences. Final paper written in Spanish.

01:940:471. INTERNSHIP IN TRANSLATION/INTERPRETATION (1–3)

Rec. 1 hr., fieldwork 2 hrs. per credit. Maximum of 3 credits. Prerequisite:

01:940:401 with a grade of B+ or better. Pre- or corequisite: 01:940:402 or 475 or permission of department.

Supervised training in a business firm, social service agency, or government office. Weekly discussions of specific texts and problems arising from the fieldwork experience. Supplementary written and laboratory assignments.

01:940:475. INTERPRETATION (3)

Prerequisite: 01:940:401 or 402.

Introduction to theory and practice of liaison, consecutive, and simultaneous interpretation. Spanish-English and English-Spanish. Intensive classroom and language laboratory exercises.

01:940:476. LEGAL TRANSLATION (1.5)

Pre- or corequisites: 01:940:401, 475.

Practice in sight and written translation of legal documents, court records, and language of courtroom procedures. Spanish-English and English-Spanish.

01:940:477. COURT INTERPRETATION (1.5)

Pre- or corequisites: 01:940:401, 475.

Intensive practice in interpretation of courtroom and other legal procedures. Development of bilingual legal glossary. Review of New Jersey and federal standards for interpreters.

01:940:478. THEORY AND PRACTICE IN TRANSLATION (3)

Prerequisites: 01:940:401, 402 with a grade of B+ or better, or permission of department.

Introduction to translation studies. Application of linguistic theory and computer technology to translation. Intensive practice in non-literary and literary translation, including narrative and theater.

01:940:479. TRANSLATION WORKSHOP (3)

Prerequisites: 01:940:401, 402 with grades of B+ or better. With permission of department, 01:940:402 may be taken as corequisite.

Intensive practice in advanced translation, Spanish-English and English-Spanish. Nonliterary and literary texts. Individual and group projects, with emphasis on translation into the native language.

01:940:486. MEDICAL/TECHNICAL TRANSLATION (1.5)

Pre- or corequisite: 01:940:401 or permission of department.

Practice in translation in such areas as medical, pharmaceutical, communications, computers, and science textbooks. Development of specialized glossaries. Spanish-English and English-Spanish.

01:940:487. HOSPITAL/COMMUNITY INTERPRETATION (1.5)

Pre- or corequisites: 01:940:402 and 475 or 486, or permission of department.

Theory and practice of hospital, medical, and other sensitive community interpretation roles. Development of specialized glossaries. Field assignments in area hospitals and clinics.

01:940:488. TOPICS IN SPANISH LINGUISTICS (3)

Prerequisite: 01:940:361 or permission of department.

In-depth study of specific themes in Spanish linguistics. Topics may include language contact phenomena, pidgins and Creoles, language acquisition, and historical linguistics.

01:940:489,490,491,492. TOPICS IN HISPANIC LITERATURE AND CULTURE (3,3,3,3)

Prerequisite: One term of 300-level literature in Spanish or permission of department.

Specific topic chosen each term.

01:940:493,494. INDEPENDENT STUDY (BA,BA)

Prerequisites: Minimum of one term of 400-level Spanish and permission of department and instructor.

Independent readings under faculty supervision. Project must not be one already treated in a formal course.

01:940:497,498. HONORS IN SPANISH (BA,BA)

Permission of department. Open only to seniors.

Research paper prepared under faculty supervision.

01:940:499. ORAL PROFICIENCY INTERVIEW (1)

Prerequisite: Senior major in Spanish or permission of department. Pass or no credit; advanced mid on OPI exam required for pass.

OPI tests by committee scheduled regularly throughout the term. Remedial work offered in informal settings arranged by the department and / or the World Languages Institute.

STATISTICS 960

Department of Statistics, Faculty of Arts and Sciences

Acting Chairperson: Arthur Cohen

Undergraduate Director: Harold Sackrowitz

Graduate Director: Cunhui Zhang

Professors:

Robert H. Berk, S.B., *Massachusetts Institute of Technology; A.M., Ph.D., Harvard*

Arthur Cohen, B.A., *CUNY (Brooklyn College); M.A., Ph.D., Columbia*

Richard F. Gundy, A.B., *Illinois College; Ph.D., Indiana; Ph.D., Chicago*

Donald Hoover, M.P.H., *California (Los Angeles); Ph.D., Stanford*

John Kolassa, B.S., *Ph.D., Chicago*

Regina Y. Liu, B.S., *Soochow (Taiwan); M.Phil., Ph.D., Columbia*

David Madigan, Ph.D., *Trinity College (Dublin)*

Joseph I. Naus, B.B.A., *CUNY (City College); M.A., Ph.D., Harvard*

Harold B. Sackrowitz, B.S., *CUNY (Brooklyn College); Ph.D., Columbia*

Lawrence Shepp, B.S., *Polytechnic Institute of Brooklyn; M.A., Ph.D., Princeton*

Kesar Singh, B.S., *Allahabad (India); M.S., Ph.D., Indian Statistical*

Institute (Calcutta)

William E. Strawderman, B.S., *Rhode Island; M.S., Cornell; M.S., Ph.D., Rutgers*

David E. Tyler, B.A., *Indiana (Pennsylvania); M.A., Massachusetts (Amherst);*

M.A., Ph.D., Princeton

Cunhui Zhang, B.A., *Huainan Mining Institute (China); M.S., Ph.D., Columbia*

Associate Professors:

Javier Cabrera, B.A., *Madrid; M.A., Ph.D., Princeton*

Minge Xie, B.S., *University of Science and Technology of China; M.S., Ph.D., Illinois (Urbana-Champaign)*

Assistant Professors:

Steve Buyske, B.A., *Haverford College; M.Sc., Ph.D., Brown; Ph.D., Rutgers*

Rebecka Jornsten, M.Sc., *Lund Institute of Technology (Sweden); M.A., Ph.D., California (Berkeley)*

Juan K. Lin, Ph.D., *Chicago*

The department offers a statistics major and a joint statistics / mathematics major in cooperation with the mathematics department. The joint statistics / mathematics major provides a stronger preparation for graduate study in statistics. Students who are interested most in applying statistics in industry, government, or in applied areas of graduate study should take the statistics major. The department

encourages interdisciplinary study, and students should consult with departmental advisers to plan their program.

Major Requirements

Statistics

A total of 46 credits is required: 18 credits in mathematics, 25 credits in statistics, and 3 credits in computer science, as follows:

1. Computer Science 01:198:110, 111, or 170
2. Mathematics 01:640:151-152, 250, 251
3. Statistics 01:960:381,* 382,* 384, 390, 463, 486, 490
4. Two courses chosen from 01:960:467, 476, 483
5. Three credits in mathematics electives (01:640:252 or a course at the 300 level or above, but not 477 or 481)

No more than two courses with a grade of *D* can be counted toward the major.

Statistics/Mathematics

A total of 56 credits is required: 28 credits in mathematics, 25 credits in statistics, and 3 credits in computer science, as follows:

1. Computer Science 01:198:110, 111, or 170
2. Mathematics 01:640:151-152, 250, 251, 252, 311, 478
3. Statistics 01:960:381,* 382,* 384, 390, 463, 486, 490
4. Two courses chosen from 01:960:467, 476, 483
5. Three credits in mathematics electives (300 level or above, but not 01:640:477 or 481)

No more than two courses with a grade of *D* can be counted toward the major.

Sequence of Courses for Nonmajors †

The sequence of courses in the study of statistics is related to a student's primary field of specialization. Students seeking credit for courses other than those for which their class and major qualify them must have the prior approval of the undergraduate director of statistics.

Political science, psychology, sociology, and humanities:
01:960:211,212; subsequent courses: 01:960:463, 467, 486, 490

Mathematics, physics, statistics, engineering, chemistry, and computer science: introductory courses: 01:960:379, and 384 or 401; subsequent courses: 01:960:381, 382, 463, 476, 486, 490

Biology, agriculture, ceramic engineering, and pharmacy: introductory courses: 01:960:401, 490; subsequent courses: 01:960:463, 467, 486

Business: introductory courses: 33:623:385, 01:960:285; subsequent courses: 01:960:463, 486, 490

Economics: 01:960:201 or 211

Environmental science: introductory courses:
01:960:211,212; subsequent courses: 01:960:463, 486, 490

* 01:640:477 and 481 may be taken instead of 01:960:381, 382. Credit is not given for both 01:640:477 and 01:960:381, nor for both 01:640:481 and 01:960:382.

† Credit is not given for more than one of 01:960:201, 211, 285. Note also that the recommended follow-up course for 01:960:211 is 212 or 384.

Minor Requirements

A minor in statistics consists of 01:960:390 and six additional courses in the Department of Statistics of which at least one must be at the 400 level. Neither 01:960:401 nor 484 may be used to fulfill this 400-level requirement. Students who complete 01:960:381 and 382 may count two terms of calculus toward the minor. Note that students who choose to take 960:381, 382 require three terms of calculus, of which only two count for the minor.

Courses

In the following course list, the Level II Statistics prerequisite may be fulfilled with 01:960:212 or 384 or 401 or 484 or equivalent. Credit is not given for more than one course fulfilling the Level II Statistics prerequisite.

01:960:211,212. STATISTICS I,II (3,3)

Prerequisite: 01:640:115 or permission of department. See Level II Statistics restrictions. Credit not given for more than one of 01:960:201, 211, and 285, nor for more than one of 01:960:212, 384, and 401.

Principles and methods of statistics, including frequency distributions, measures of central tendency and dispersion, simple probability, sampling, regression and correlation analysis, curve fitting, chi-square analysis, test of significance.

01:960:285. INTRODUCTORY STATISTICS FOR BUSINESS (3)

Prerequisite: 01:640:115 or equivalent. Credit not given for more than one of 01:960:201, 211, and 285.

Topics include descriptive statistics, probability, random variables, sampling distributions, principles of hypothesis testing, and one and two sample T-tests.

01:960:379. BASIC PROBABILITY AND STATISTICS (3)

Prerequisite: One term of calculus.

Methods of presenting data; basic statistical measures of location; frequency distributions; elementary probability theory; probability distributions; the binomial, Poisson, and normal distributions; basic sampling theory.

01:960:381. THEORY OF PROBABILITY (3)

Prerequisites: Three terms of calculus.

Probability distributions; the binomial, geometric, exponential, Poisson, and normal distributions; moment-generating functions; sampling distributions; applications of probability theory.

01:960:382. THEORY OF STATISTICS (3)

Pre- or corequisite: 01:960:381 or equivalent.

Statistical inference methods, point and interval estimation, maximum likelihood estimators, information inequality, hypothesis testing, Neyman-Pearson lemma, linear models.

01:960:384. INTERMEDIATE STATISTICAL ANALYSIS (3)

(Formerly 01:960:380)

Prerequisite: One of the following courses: 01:960:201, 211, 285, 379, 381, or permission of instructor. Credit not given for this course and 01:960:212 or 401 or 484.

Application of statistical techniques to the analysis of data, tests of significance, correlation and regression analysis, confidence intervals, analysis of variance, and some design of experiments; analysis of cross-classified data, Chi-square tests. Course requires the use of basic statistics computer package.

01:960:390. INTRODUCTORY COMPUTING FOR STATISTICS (1)

Five-week course; 3 hrs. lec. and lab. Pre- or corequisite: Level II Statistics.

Graded on a Pass/Fail (undergraduate) and S/U (graduate) basis.

Introduction to the use of statistics computer packages with main focus on SAS. Includes generating random samples, estimation, testing hypothesis, ANOVA.

01:960:391,392. HONORS SEMINARS IN PROBABILITY/STATISTICS (3,3)

Prerequisite: CALC1 or permission of department. Corequisite: CALC2.

Open to students in college honors programs.

Real-life examples or case studies on statistics and probability theory, and their ramifications. Topics may vary from term to term. Extensive data analysis required.

01:960:401. BASIC STATISTICS FOR RESEARCH (3)

Prerequisite: 01:640:115 or equivalent. For students in the biological sciences, ceramic engineering, computer sciences, pharmacy, etc. May be followed by 01:960:490, or 16:960:590 with permission of department. Credit not given for more than one of 01:960:212, 384, and 401.

As applied in fields other than statistics; treats research projects dependent on the use of observed data from planned experiments. Includes inference methods in estimation and hypothesis testing and general linear models.

01:960:463. REGRESSION METHODS (3)

Prerequisite: Level II Statistics.

Multiple and nonlinear correlation and regression techniques for analysis of events in time and space; analysis of variance and covariance, related multivariate techniques, response surface approaches.

01:960:467. APPLIED MULTIVARIATE ANALYSIS (3)

Prerequisite: Level II Statistics or permission of department.

Introduction to the methodology of multivariate analysis. Multiple linear regression, discriminant analysis, profile analysis, canonical correlation, principal components, and factor analysis.

01:960:476. INTRODUCTION TO SAMPLING (3)

Prerequisite: Level II Statistics and 01:960:379 or 381 or equivalent or permission of department.

Principles of sampling application for economic procurement or assessment of data. Current techniques for area sampling, sampling of accounts, large-scale surveys, stratification, cluster sampling, systematic sampling, two-stage sampling, and construction of estimates.

01:960:483. STATISTICAL QUALITY CONTROL (3)

Prerequisite: One term of statistics at the college level.

Statistical measures; histogram analysis; construction and analysis of control charts for variables and attributes; use of Dodge-Romig and Military Standards acceptance sampling plans; statistical aspects of tolerances.

01:960:484. BASIC APPLIED STATISTICS (3)

Prerequisite: One of the following courses: 01:960:201, 211, 285, 379, 381, or permission of instructor. Credit not given for both this course and 01:960:212 or 384 or 401.

Confidence estimation, hypothesis testing, chi-square methods, correlation and regression analysis, basis of design of experiments.

01:960:486. COMPUTING AND GRAPHICS IN APPLIED STATISTICS (3)

Use of various computer-based techniques, including graphical, to understand and interpret data. Exposure to basic analysis of categorical, time-series, and multivariate data in applied areas such as biostatistics, quality control, and others.

01:960:490. INTRODUCTION TO EXPERIMENTAL DESIGN (3)

Prerequisite: Level II Statistics.

Basic concept and principles of designs. Nature and analysis of various designs; randomized blocks, Latin squares, factorial designs. Applications to specific problems.

01:960:491. RELIABILITY-QUALITY CONTROL (3)

Prerequisites: 01:640:251 and Level II Statistics.

Survey of current theory and practice in this field.

01:960:495. INDEPENDENT STUDIES IN STATISTICS (3)

Prerequisite: Permission of department.

STATISTICS-MATHEMATICS

(See Statistics 960)

STUDY ABROAD 959

Rutgers conducts full immersion study abroad programs around the globe for a full year, a single term, or a summer for students of any major. In countries where the national language is not English, two terms of the national literature are recommended highly. Students, however, need not be majoring in the language to participate. Interested students should write to the Study Abroad Director, Rutgers, The State University of New Jersey, 102 College Avenue, New Brunswick, NJ 08901-8543, or visit the web site at <http://studyabroad.rutgers.edu>.

Summer study abroad programs are offered in France, Greece, China, Spain, Italy, Peru, Germany, Kenya, Tanzania, Poland, India, Costa Rica, Brazil, and Israel. For further information, consult the appropriate language department or the Study Abroad Office.

Students wishing to study abroad with programs other than those hosted by Rutgers may contact other American colleges or may seek admission directly from a foreign university. Students making these arrangements should speak with their academic dean about the acceptability of the program and the transfer of credit.

Courses

01:959:300. AFRICAN-CARIBBEAN HISTORY AND CULTURE: THE VIEW FROM LIMON (6)

Interdisciplinary study of African-Caribbean history and culture, with a focus on the African-Caribbean community in Limon, Costa Rica. Readings are in African-Caribbean history and literature, in Costa Rican history, and in studies of multiculturalism and the politics of language. On-site interactions through community service work (English instruction) at St. Mark's School (kindergarten through ninth grade) in Limon.

01:959:301. SUMMER PROGRAM IN BRAZILIAN STUDIES AND PORTUGUESE (BA)

Intern at *Folha de S. Paulo* and study Brazilian culture and advanced Portuguese.

01:959:302. SUMMER INSTITUTE IN MIDDLE EASTERN STUDIES (BA)

Study Middle Eastern culture, literature, history, and politics in context through two courses for six weeks.

01:959:303,304. STUDY ABROAD IN THE NETHERLANDS (BA,BA)

Study for a year or a single term at Leiden University. All majors welcome. English instruction.

01:959:305,306. STUDY ABROAD IN SOUTH KOREA (BA,BA)

One term or one academic year of study at Ewha University in South Korea. All majors welcome. Proficiency in Korean beneficial, but not required.

01:959:321,322. HOWARD/RUTGERS EXCHANGE (BA,BA)

Study at Howard University in Washington, DC, for a year or a single term.

01:959:374. RUTGERS LONDON THEATER TERM (BA)

Spring term conservatory training in London. All majors welcome; serious interest in theater a must.

01:959:375,376. STUDY ABROAD IN JAPAN (BA,BA)

One year study at Ritsumeikan University in Kyoto. Students with an appropriate level of Japanese may choose from a wide range of courses.

01:959:377,378. STUDY ABROAD IN AUSTRALIA (BA,BA)

Term study at either the University of Queensland or Melbourne in a wide variety of subjects.

01:959:379,380. JUNIOR YEAR IN SPAIN (BA,BA)

Study for a year or a spring term at the Universitat de València. All majors welcome; good knowledge of Spanish urged.

01:959:381-382. JUNIOR YEAR IN FRANCE (BA,BA)

Study for a year at the Université François Rabelais in Tours. All majors welcome; good knowledge of French urged.

01:959:383,384. JUNIOR YEAR IN ITALY (BA,BA)

All majors welcome. Students may choose to study for a year at the Università degli Studi di Firenze in Florence with a good knowledge of Italian, or for a spring term in Florence with any level of Italian.

01:959:385,386. JUNIOR YEAR IN GERMANY (BA,BA)

Study for a year or a spring term at the Universität Konstanz in Constance. All majors welcome; good knowledge of German urged.

01:959:387,388. STUDY ABROAD IN MEXICO (BA,BA)

Study for a year or a single term at the Universidad Autónoma de Yucatán in Mérida. All majors welcome; good knowledge of Spanish urged.

01:959:389,390. STUDY ABROAD IN ISRAEL (BA,BA)

Study for a year or a single term at the University of Haifa or Ben-Gurion. All majors welcome.

01:959:391,392. STUDY ABROAD IN BRITAIN (BA,BA)

Study for a year or a single term in one of 11 universities in the United Kingdom. All majors welcome.

01:959:393,394. INDEPENDENT STUDY (BA,BA)

By permission.

01:959:395,396. STUDY ABROAD IN IRELAND (BA,BA)

Study for a year or a single term at University College Dublin or Cork. All majors welcome.

01:959:397. THE CONSTRUCTION OF THE EUROPEAN UNION (6)

Survey of the main issues pertaining to the construction of Europe as assessed from a variety of European perspectives.

01:959:398. STUDY ABROAD IN SOUTH AFRICA (BA)

By permission.

Study at the University of Natal in South Africa. There are two options, a CASE option and a liberal arts option.

01:959:399. STUDY ABROAD IN POLAND (BA)

01:959:400,401. STUDY ABROAD IN INDIA (BA,BA)

Study for a year or the fall term at St. Stephen's College in New Delhi. All majors welcome.

THEATER ARTS 965, 966

Department of Theater Arts, Mason Gross School of the Arts

See the Mason Gross School of the Arts section for faculty listing and bachelor of fine arts (B.F.A.) program information.

The bachelor of arts (B.A.) major program in theater arts is designed for those students seeking a liberal arts education. The program is intended to provide an excellent generalized background in theater. Students who wish to specialize in acting, design, or production should consider auditioning/interviewing to be a bachelor of fine arts (B.F.A.) theater arts major. There are several opportunities for study abroad in university-sponsored programs. Please see Mason Gross School of the Arts admissions information. Casting and directing opportunities are available with the several extracurricular theater organizations on campus: the Cabaret Theater (Douglass), the College Avenue Players (Rutgers), and the Livingston Theater Company (Livingston). Casting in departmental productions is restricted to B.F.A. and M.F.A. acting students.

Major Requirements

Students who are considering the major should take 07:965:211 Theater Appreciation and 07:965:271 Basic Acting or 07:966:215 Scenic Art as a means to explore potential aptitude for the field. B.A. theater majors should complete courses in 07:966:215-216 Scenic Art, 07:965:311-312 Theater History, and 07:966:123 Theater Practice (repeated) by the end of the junior year, since they are required of all majors and are prerequisites for most advanced theater courses. It is important to complete theater practice prior to senior year.

Scenic Art and Theater History are both two term courses, which must be taken in sequence, beginning in the fall term. Both courses are offered during Summer Session.

Theater arts majors in the B.A. program are required to take a minimum of 47 credits, distributed as follows:

1. 15 credits in academic courses: 07:965:311-312 Theater History (3,3); 3 credits in either 07:965:398 Basic Theater Texts (3) or 07:965:408 Script Analysis (3); and 6 credits from among 07:965:211 Theater Appreciation (3), 07:965:212 Theater and Contemporary Issues (3), 07:966:364 Theater Management (3), and 07:965:401 Theater Criticism (3);
2. 10 credits in physical theater: 07:966:215-216 Scenic Art (3,3), 07:966:123 Theater Practice (2,2);
3. 1 credit in 07:965:390 Theater Horizons;
4. 6 credits in performance (acting and/or directing);
5. 6 credits in 07:965:491-492 Project Work (BA,BA) or 07:965:396 Internship (BA) (for example, a year of study or performance in children's theater ensemble or an internship with a professional theater organization). Approved study abroad credits may be substituted. All credits in this category must be planned and supervised with the B.A. theater arts adviser.
6. 9 credits in theater arts electives.

Theater arts students should take correlative courses in dramatic literature (modern drama, Shakespeare) as well as courses in art, dance, and music history and appreciation.

Minor Requirements

The minor in theater arts requires 18 credits. 07:965:311-312 Theater History (3,3) and 07:966:215-216 Scenic Art (3,3) are required courses. In addition, theater arts minors take 6 credits in theater arts electives. B.A. advisers in theater arts must be consulted for approval of elective selections. Theater arts minors who are declaring in the senior year must preregister for classes to ensure availability; space is limited.

Scenic Art and Theater History are both two term courses, which must be taken in sequence, beginning in the fall term. Both courses are offered during Summer Session.

Departmental Honors Program

A student in the theater arts major qualifies as a candidate for departmental honors after meeting several requirements: at the time the proposal for candidacy is submitted, the student must have a cumulative grade-point average of 3.0 or better and an average of 3.5 or better in the major; the student must submit to their B.A. adviser a project proposal that has the sanction of one member of the department who has agreed to serve as mentor. The project may take the form of a paper in theater history; or aesthetics and criticism; or may be a creative work in areas of acting and directing, design, or playwriting.

The candidate whose proposal is accepted must enroll in 07:965:493, an honors seminar, and 07:965:494, the thesis project. This project must be completed by May 1 and is judged by the student's mentor and two other faculty members who determine whether the student's work merits high honors, honors, or no honors.

Courses (965)

07:965:211. THEATER APPRECIATION: EXPERIENCES IN CONTEMPORARY THEATER (3)

Jones, Mancuso.

Designed for nonmajors. Students attend a wide spectrum of theater offerings—Broadway, Off-Broadway, Off-Off-Broadway, repertory, and university theater performances—and, through discussion and lectures by professional artists, gain an appreciation of performance.

Theater tickets: up to \$100 (generally, no text fee is required).

07:965:212. THEATER AND CONTEMPORARY ISSUES (3)

Mancuso. Prerequisite: 07:965:211.

Exploration of theater and drama as they relate to issues of contemporary culture. Class attends between six and eight productions in local, regional, and New York theater; reads several works on current issues; and writes on topics related to the two areas. Theater tickets: up to \$100 (generally, no text fee is required).

07:965:218. PLAYWRITING (3)

Hart.

Exploration of the craft of playwriting through the writing and evaluation of exercises, adaptations, and short plays.

07:965:219. PLAYWRITING PROJECT (BA)

Prerequisite: Permission of instructor.

Advanced projects in playwriting by arrangement with instructor.

07:965:271-272. BASIC ACTING (3,3)

Theory and practice of the art of acting.

07:965:311-312. THEATER HISTORY (3,3)

Western theatrical traditions from Greek through contemporary avant-garde theater.

07:965:325-326. INTERMEDIATE ACTING: SCENE STUDY (3,3)

Prerequisites: 07:965:271-272. Approval of instructor or audition required for admission.

Scene study and the basis of characterization.

07:965:350. IMPROVISATION AND THEATER GAMES (3)

Ruskin. Prerequisite: 07:965:271.

Improvisational theater games and exercises for the student who has some experience in acting.

07:965:359-360. INDEPENDENT STUDY (BA,BA)

Open only to theater arts majors with permission of instructor and student's theater arts adviser.

07:965:364. THEATER MANAGEMENT (3)

Jones. Open to 965/966 majors or by permission of instructor.

Exploration of management of regional and commercial theater, including organization, administration, marketing, budgeting and fundraising.

07:965:365. THEATER PRODUCING (3)

Jones. Prerequisite: 07:965:364

Continuation of theater management with emphasis on the role of the producer.

07:965:384. SHOESTRING PERFORMANCE AND PRODUCTION (BA)

Hart. Prerequisite: By audition only.

Intensive investigation of advanced ensemble acting and creative dramatics. Full-length theater piece for children and adults produced. Eligible students assigned roles as performers or production staff. The Shoestring Players perform a limited touring season in the tristate area.

07:965:390. THEATER HORIZONS (1)

Jones. Required of all junior theater arts 965 majors.

Discussion of careers in theater and career preparation—guest speakers and site visits included.

07:965:396. INTERNSHIP/THEATER (BA)

Prerequisite: Permission of instructor.

Supervised work experience in a department of a professional theater organization. Includes design and production, performance, stage management, business management, or literary management.

07:965:398. BASIC THEATER TEXTS (3)

Prerequisites: 07:965:311-312 or permission of instructor.

Reading and discussion of key works in the theatrical repertoire. Survey begins with the classic Greek drama and ends with contemporary plays. Develops habits of script analysis particularly useful to theater practice.

07:965:401. THEATER CRITICISM (3)

Blumenthal. Prerequisites: 07:965:311-312, accepted writing sample, and permission of instructor.

Study of criteria for analyzing and evaluating plays and performances; workshops in critical writing.

07:965:408. SCRIPT ANALYSIS (3)

Prerequisites: 07:965:311-312 or permission of instructor.

Lecture and discussion designed to achieve a better understanding of play form and structure.

07:965:421. DIRECTING (3)

Hart. Prerequisites: 07:965:271-272 and 07:966:215-216. Open to juniors and seniors only.

Principles of play directing.

07:965:422. ADVANCED DIRECTING PROJECT (3)

Hart. Prerequisite: 07:965:421. By permission of instructor.

Principles of play directing and scene study.

07:965:451. STORYTELLING WORKSHOP (3)

Ruskin. Prerequisite: 07:965:271.

An introduction to the art and practice of storytelling. Universal iconography and performance are stressed. Students are placed for performance practice.

07:965:471-472. CREATIVE DRAMATICS FOR CHILDREN (3,3)

Ruskin. Prerequisite: Open to juniors and seniors by permission of instructor.

Techniques of conducting informal dramatic activity; supervised practice with a group of children.

07:965:491-492. PROJECT WORK (6,6)

Jones. Prerequisites: 07:966:215-216 and permission of student's B.A. adviser. Open to juniors and seniors.

Application of performance, production, or critical theory under professional supervision in an outside theatrical organization. Activities include, but are not limited to, literary management, acting, stage management, design, and theater management.

07:965:493. HONORS SEMINAR IN THEATER ARTS (3)

Prerequisite: Permission of instructor.

Students perfect abilities to do independent work.

07:965:494. HONORS PROJECT IN THEATER ARTS (3)

Prerequisites: 07:965:493 and permission of department.

Individual research and / or creative project presented as honors thesis.

07:965:495-496. SEMINAR: TOPICS IN THEATER (BA,BA)**07:965:497-498. WORKSHOP TOPICS IN THEATER (BA,BA)****Courses (966)**

The following courses are required of (*) or open to B.A. students. See the course listing for prerequisites and course descriptions.

Most classes also require the permission of the instructor and have maximum class size restrictions.

07:966:123. THEATER PRACTICE (2) *

Corequisite: 07:966:123. Two terms are required for all B.A. and B.F.A. theater arts majors.

07:966:215-216. SCENIC ART (3,3) *

Corequisite: 07:966:123.

07:966:243-244. ELEMENTS OF DESIGN (2,2)

Prerequisites: 07:966:215-216.

07:966:245-246. HISTORY OF ARCHITECTURE AND DECORATIVE ARTS (2,2)

Prerequisites: 07:966:215-216.

07:966:247-248. COSTUME HISTORY AND RENDERING (2,2)

Prerequisite: 07:966:300.

07:966:251-252. FUNDAMENTALS OF DRAFTING (2, 2)

Prerequisites: 07:966:215-216.

07:966:273. THEATRICAL MAKEUP (1)**07:966:300-301. INTRODUCTION TO DESIGN FOR THEATER (3,3)****07:966:305. INTRODUCTION TO STAGE LIGHTING (2)**

Prerequisites: 07:966:215-216.

07:966:307. PRODUCTION PROPERTIES (2)**07:966:316. SCENE PAINTING (2)**

Prerequisites: 07:966:215-216.

07:966:323. THEATER PRACTICE (BA)**07:966:343-344. FUNDAMENTALS OF LIGHTING DESIGN (2,2)**

Prerequisite: 07:966:305.

07:966:359-360. DIRECTED STUDY (BA,BA)

WOMEN'S AND GENDER STUDIES

07:966:361. SOUND TECHNOLOGY FOR THE THEATER (2)

Prerequisites: 07:966:215-216 or permission of instructor.

07:966:362. SOUND TECHNOLOGY FOR THE THEATER (BA)

Prerequisites: 07:966:361 or permission of instructor.

07:966:389-390. COSTUME CONSTRUCTION TECHNIQUES (1,1)

Prerequisites: 07:966:247-248.

07:966:423. STAGE MANAGEMENT (3)

Prerequisites: 07:966:215-216.

07:966:424. STAGE MANAGEMENT (3)

Prerequisite: 07:966:423.

UKRAINIAN 967

Department of Germanic, Russian, and East European Languages and Literatures, Faculty of Arts and Sciences

Web Site: <http://seell.rutgers.edu>

For additional information, consult the program's web site.

Course in English

01:967:259. UKRAINIAN LITERATURE IN TRANSLATION (3)

Reading and interpretation of major writers.

Courses in Ukrainian

01:967:121,122. UKRAINIAN IN REVIEW (4,4)

Prerequisite: Placement test or permission of instructor.

Overview of grammar, development of conversation, reading, and composition skills.

01:967:493,494. INDEPENDENT STUDY: UKRAINIAN (3,3)

Prerequisite: Permission of instructor.

UNIVERSITY COLLEGE–NEW BRUNSWICK COLLEGE COURSES (See Arts and Science 090)

URBAN STUDIES

(See the Edward J. Bloustein School of Planning and Public Policy section)

VISUAL ARTS

(See Art 080)

WOMEN'S AND GENDER STUDIES 988

Department of Women's and Gender Studies, Faculty of Arts and Sciences

Web Site: <http://womens-studies.rutgers.edu>

Chairperson: Joanna Regulska

Director of Undergraduate Studies: Barbara J. Balliet

Faculty:

Barbara J. Balliet, *Women's and Gender Studies/History*; Ph.D., New York
Ethel Brooks, *Women's and Gender Studies/Sociology*; Ph.D., New York
Charlotte Bunch, *Urban Studies and Community Health*; B.A., Duke
Abena Busia, *English/Women's and Gender Studies*; Ph.D., St. Anthony's College (Oxford)

Susan J. Carroll, *Political Science*; Ph.D., Indiana

Dorothy Sue Cobble, *Labor Studies/Women's and Gender Studies*; Ph.D., Stanford

Ed Cohen, *Women's and Gender Studies*; Ph.D., Stanford

Drucilla Cornell, *Political Science/Women's and Gender Studies*; J.D., California (Los Angeles)

Harriet Davidson, *English/Women's and Gender Studies*; Ph.D., Vanderbilt

Josephine Diamond, *French/Women's and Gender Studies*; Ph.D., Cornell

Leela Fernandes, *Political Science/Women's and Gender Studies*; Ph.D., Chicago

Judith Gerson, *Sociology/Women's and Gender Studies*; Ph.D., Cornell

Mary Gossy, *Women's and Gender Studies/Spanish/Portuguese*; Ph.D., Harvard

Elizabeth Grosz, *Women's and Gender Studies*; Ph.D., Sydney

Mary Hartman, *History/Women's and Gender Studies*; Ph.D., Columbia

Mary Hawkesworth, *Women's and Gender Studies*; Ph.D., Georgetown

Nancy Hewitt, *History/Women's and Gender Studies*; Ph.D., Pennsylvania

Jennifer M. Jones, *History/Women's and Gender Studies*; Ph.D., Princeton

Samira Kawash, *Women's and Gender Studies*; Ph.D., Duke

Phyllis Mack, *History/Women's and Gender Studies*; Ph.D., Cornell

Leslie McCall, *Sociology/Women's and Gender Studies*; Ph.D., Wisconsin

Jennifer Morgan, *History/Women's and Gender Studies*; Ph.D., Duke

Jasbir Puar, *Women's and Gender Studies*; Ph.D., California (Berkeley)

Joanna Regulska, *Geography/Women's and Gender Studies*; Ph.D., Colorado

Yana Rodgers, *Women's and Gender Studies*; Ph.D., Harvard

Louisa Schein, *Anthropology/Women's and Gender Studies*; Ph.D., California (Berkeley)

Bonnie Smith, *Women's and Gender Studies/History*; Ph.D., Rochester

Deborah White, *History/Women's and Gender Studies*; Ph.D., Illinois

Affiliate Faculty:

Laura Ahearn, *Anthropology*; Ph.D. Michigan

Eileen Applebaum, *Labor Studies, Center for Women and Work*; Ph.D., Pennsylvania

Suzan Armstrong-West, *Douglass College Dean's Office*; Ph.D., Florida

Louise Barnett, *English*; Ph.D., Bryn Mawr College

Emily Bartels, *English*; Ph.D., Harvard

Francis Bartkowski, *English–Newark*; Ph.D., Iowa

Vilna Bashi, *Sociology*; Ph.D., Wisconsin

Mia E. Bay, *History*; Ph.D., Yale

Eleanor L. Brilliant, *Social Work*; D.S.W., Columbia

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Ann Baynes Coiro, *English*; Ph.D., Maryland

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Susan Crane, *English*; Ph.D., California (Berkeley)

Jocelyn Crowley, *Public Policy*; Ph.D., Massachusetts Institute of Technology

Cynthia Daniels, *Political Science*; Ph.D., Massachusetts

Belinda Davis, *History*; Ph.D., Michigan

Marianne DeKoven, *English*; Ph.D., Stanford

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William C. Donahue, *German*; Ph.D., Harvard

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David Eng, *English*; Ph.D., California

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Ziva Galili, *History*; Ph.D., Columbia

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Briavel Holcomb, *Urban Studies*; Ph.D., Colorado

Mary B. Hutchison, *English*; Ph.D., Washington

Karla Jackson-Brewer, *Africana Studies*; M.S., Bank Street College of Education

Jane Y. Junn, *Political Science*; Ph.D., Chicago

Temma Kaplan, *History*; Ph.D., Harvard

Renée B. Larrier, *French*; Ph.D., Columbia

Suzanne Lebsock, *History*; Ph.D., Virginia

Barbara A. Lee, *Industrial Relations and Human Resources*; Ph.D., Ohio

Barbara C. Lewis, *Political Science*; Ph.D., Northwestern

Richard Lockwood, *French*; Ph.D., Johns Hopkins

Ruth B. Mandel, *Eagleton Institute*; Ph.D., Connecticut

Joan M. Marter, *Art History*; Ph.D., Delaware

Meredith L. McGill, *English*; Ph.D., Johns Hopkins

Ferris Olin, *Rutgers University Libraries*; Ph.D., Rutgers

Alicia Ostriker, *English*; Ph.D., Wisconsin
 Ann P. Parelius, *Sociology*; Ph.D., Chicago
 Gerald Pirog, *Chinese, Comparative Literature, and Slavic Languages*; Ph.D., Yale
 Francoise S. Puniello, *Rutgers University Libraries*; M.A., M.L.S., Rutgers
 Nancy Rao, *Music, Mason Gross School of the Arts*; Ph.D., Michigan
 Patricia A. Roos, *Sociology*; Ph.D., California (Los Angeles)
 Sarah Rosenfield, *Sociology*; Ph.D., Texas
 Paul Schalow, *Chinese, Comparative Literature, and Slavic Languages*; Ph.D., Harvard
 Joan W. Scott, *Social Science, Institute for Advanced Study*; Ph.D., Wisconsin
 Richard Serrano, *French*; Ph.D., California (Berkeley)
 Mary Sheridan-Rabideau, *English*; Ph.D., Illinois (Urbana)
 Jane E. Sloan, *Rutgers University Libraries*; M.A., California State (San Francisco)
 Carol H. Smith, *English*; Ph.D., Michigan
 Arlene Stein, *Sociology*; Ph.D., California
 Linda C. Steiner, *Journalism and Mass Media*; Ph.D., Illinois (Urbana)
 Judith M. Stern, *Psychology*; Ph.D., Rutgers
 Sarolta Takacs, *Classics*; Ph.D., California
 Gayle T. Tate, *Africana Studies*; Ph.D., CUNY
 Mary Trigg, *Center for Women and Work*; Ph.D., Brown
 Meredith Turshen, *Urban Studies*; Ph.D., Sussex
 Cheryl A. Wall, *English*; Ph.D., Harvard
 Carolyn Williams, *English*; Ph.D., Virginia
 Edlie Wong, *English*; Ph.D., California (Berkeley)
 Virginia Yans, *History*; Ph.D., SUNY (Buffalo)
 Chun-Fang Yu, *Religion*; Ph.D., Columbia
 Yael Zerubavel, *History*; Ph.D., Pennsylvania

Women's and gender studies concentrates on the implications of gender for women's lives. The program strives to serve women of all races and classes, investigating differences as well as similarities among women. The women's and gender studies program is guided by an interdisciplinary committee of faculty.

For additional information about the program, consult the web site.

Major Requirements

The major in women's and gender studies consists of 36 credits, made up of 18 credits of required women's and gender studies 988 courses and 18 credits in approved cognate courses of which 12 credits must be at the 300 level or above.

The following courses are required:

1. 01:988:101 Women, Culture, and Society (3) or 01:988:202 Gender, Culture, and Representation (3) or 01:988:235 Dynamics of Race, Class, and Sex (3)
2. 01:988:201 Feminist Practices (3)
3. 01:988:301 Feminist Theory: Historical Provocations (3) or 01:988:302 Feminist Theory: Contemporary Engagements (3)
4. 01:988:303 Comparative Feminisms (3)
5. 01:988:370 Feminist Inquiry (3) or a 300- or 400-level core course (see list in department and on web site)
6. 01:988:425 Internship in Women's and Gender Studies (6) or 01:988:490 Seminar: Women and Contemporary Issues (3) or 01:988:491, 492 Special Topics (3, 3)
7. Six (6) elective courses chosen either from the women's and gender studies program or from a list of approved cross-listed courses or other courses approved by a program adviser. At least four of the six elective courses must be at the 300 level or above.

Minor Requirements

The following courses are required:

1. 01:988:101 Women, Culture, and Society (3) or 01:988:201 Feminist Practices (3) or 01:988:202 Gender, Culture, and Representation (3) or 01:988:235 Dynamics of Race, Class, and Sex (3)
2. 01:988:301 Feminist Theory: Historical Provocations (3) or 01:988:302 Feminist Theory: Contemporary Engagements (3) or 01:988:303 Comparative Feminisms (3)
3. Four (4) elective courses chosen either from the women's and gender studies program or from a list of approved cross-listed courses, at least one of which must have race, class, or sexuality at its center. Of the four elective courses, not more than two can be from the same department. At least one elective must be at the 300 level and one at the 400 level.

Honors in Women's and Gender Studies

Women's and gender studies majors may petition to obtain honors if they have an overall cumulative grade-point average of 3.0 or better and 3.4 or better in women's and gender studies courses at the end of their junior year. Candidates are required to write an honors paper and participate in an honors research course (01:988:497-498).

Institute for Women's Leadership (IWL) Scholars Certificate Program

The IWL Leadership Scholars Certificate Program, offered through the Department of Women's and Gender Studies, is a two-year interdisciplinary program in Women's Leadership and Social Change that prepares undergraduate students to be informed, innovative, and socially responsible leaders. Students in the program select a women's policy area in which to concentrate. These include art / media / literature, education, health, human rights, law, politics, the environment, and work, as well as a general leadership area. Students affiliate with the IWL during four terms and are required to take 18 credits of course work. This includes a two-term practicum that consists of an internship and a social action project. Students choose from a wide range of courses to fulfill the other certificate requirements. This selective program requires an application; contact the Institute for Women's Leadership for further information.

Approved Cognate Courses

The women's and gender studies program accepts certain courses offered by other departments as cognate courses, which may be counted toward the women's and gender studies major or minor. These courses are cross-listed below. The courses in this cross-listing have counterparts offered by the women's and gender studies program that utilize the same last three digits of the course number as the cross-listed course, but with the women's and gender studies school / subject code designation of 01:988:. (For example, course 01:014:206, an Africana studies course, also is offered by the women's and gender studies program as course 01:988:206.) There are 27 courses that do not follow this pattern, cross-referenced as follows:

WOMEN'S AND GENDER STUDIES

01:014:481 = 01:988:483
 01:050:326 = 01:988:327
 01:350:371 = 01:988:366
 01:350:381 = 01:988:388
 01:351:355 = 01:988:352
 01:351:356 = 01:988:353
 01:351:361 = 01:988:364
 01:351:435,436 = 01:988:437,438
 01:353:496,497 = 01:988:495,496
 01:354:385 = 01:988:376
 01:450:361 = 01:988:367
 01:470:384 = 01:988:391
 01:470:385 = 01:988:377
 01:508:307 = 01:988:308
 01:508:346 = 01:988:348
 01:512:381 = 01:988:390
 01:512:482 = 01:988:484
 01:563:384 = 01:988:391
 01:790:335 = 01:988:336
 01:790:426 = 01:988:428
 01:836:306 = 01:988:304
 01:836:323 = 01:988:328
 01:840:350 = 01:988:343
 01:840:351 = 01:988:349
 01:840:360 = 01:988:361

Full course descriptions for all cross-listed courses can be found under the appropriate originating department's subject code listing. Credit is not given for both a women's and gender studies course (01:988:) and its corresponding cross-listed course.

01:014:206 The Black Woman (3)
 01:014:306 The Black Woman in Political Context (3)
 01:014:481 The Black Family (3)
 01:050:325 Women on the Fringe (3)
 01:050:326 The Culture of American Women (3)
 01:070:225 Women in an Anthropological Perspective (3)
 01:070:323 Women Writing Culture (3)
 01:070:363 Race, Class, Gender, and Schooling (3)
 01:070:378 The Anthropology of Gender (3)
 01:070:379 Gender and Power in Africa (3)
 01:070:389 Ethnography of Gender in South Asia (3)
 07:080:300 Women Artists (3)
 01:082:305 Women and Art (3)
 01:190:320 Women in Antiquity (3)
 01:195:327 Women's Traditions in Literature (3)
 01:220:375 Women and the Economy (3)
 01:220:427 Women's Work and Labor Markets (3)
 01:350:371 Black Women Writers (3)
 01:350:381 Medieval and Early Modern Women Writers (3)
 01:350:382 Restoration and 18th-Century Women Writers (3)
 01:350:383 Nineteenth-Century Women Writers (3)
 01:350:384 Twentieth-Century Women Writers (3)
 01:350:385 American Women Writers to 1900 (3)
 01:350:386 Twentieth-Century American Women Writers (3)
 01:351:265 Introduction to the Study of Women Writers (3)
 01:351:266 Issues and Methods in Feminist Literary Studies (3)
 01:351:355 Drama by Women (3)
 01:351:356 Fiction by Women (3)

01:351:357 Poetry by Women (3)
 01:351:358 Autobiography by Women (3)
 01:351:359 Gender and Genre (3)
 01:351:361 Issues and Problems in Feminist Literary Studies (3)
 01:351:435,436 Seminar: Feminist Literary Studies (3,3)
 01:353:340 Feminist Theory in Literary Study (3)
 01:353:346 Theories of Gender and Sexuality (3)
 01:353:496,497 Seminar: Topics in Feminist Theory (3,3)
 01:354:385 Theories of Women and Film (3)
 01:420:313 Twentieth-Century Feminism: Theories of Gender (3)
 01:420:319 Women Writers from 1789 to the Present (3)
 01:450:361 Gender Geographies (3)
 01:470:374 Matriarchy and Modernity (3)
 01:470:384 Yiddish Literature from Tradition to Enlightenment (3)
 01:470:385 The Changing Image of Women in German Literature (3)
 01:500:315 The Woman in Judaism (3)
 01:506:211 Women in Europe and the Americas until 1800 (3)
 01:506:212 Women in Europe and the United States since 1800 (3)
 01:506:311 History of Feminism (3)
 01:506:373 or 01:563:373 History of Jewish Women (3)
 01:506:393 Advanced Topics in the History of Women (3)
 01:508:224 Women and Gender in African History (3)
 01:508:307 Women and Society in the Islamic Middle East (3)
 01:508:316 or 01:563:316 Israeli Women: Historical and Literary Perspectives (3)
 01:508:346 Women in Chinese History (3)
 01:510:253 History of Witchcraft and Magic (3)
 01:512:380 Women in American History I (3)
 01:512:381 Women in American History II (3)
 01:512:482 Male and Female in American History (3)
 01:560:356 Women in Italian Literature and Society (3)
 01:563:316 Israeli Women: Historical and Literary Perspectives (3)
 01:563:373 History of Jewish Women (3)
 01:563:384 Yiddish Literature from Tradition to Enlightenment (3)
 01:565:360 Japanese Women Writers (3)
 37:575:309 Working Women in American Society (3)
 37:575:335 Women and the Labor Movement (3)
 01:730:347 Philosophical Issues in Feminism (3)
 01:790:335 Women and American Politics (3)
 01:790:355 Women and Public Policy (3)
 01:790:365 Gender and Political Theory (3)
 01:790:423 Contemporary Feminist Theory (3)
 01:790:424 Gender and Political Economy (3)
 01:790:426 Gender, Public Policy, and Law (3)
 01:830:362 Psychology of Sex and Gender (3)
 01:830:381 Psychology of Women (3)
 01:836:150 The Latin American Woman (3)
 01:836:210 Gender across Cultures (3)
 01:836:306 Queer Culture in Hispanic Caribbean and Its Diaspora
 01:836:322 Latinas: Migration, Work, and Family (3)
 01:836:323 U.S. Latina Feminists (3)
 01:840:350 Women in Eastern Religions (3)
 01:840:351 Women in Western Religions (3)
 01:840:360 Feminist Theology (3)
 01:860:435 Social Construction of Gender and Sexuality in Russian Literature (3)

- 01:920:216 Sociology of Women (3)
 01:920:272 Sociology of the Family (3)
 01:920:324 Sociology of Gender (3)
 01:920:354 Third-World Women (3)
 01:920:440 Sexuality and Society (3)
 01:920:470 Seminar in the Sociology of Gender (3)

Courses

01:988:101. WOMEN, CULTURE, AND SOCIETY (3)

Credit not given for both 01:988:101 and 202.

Study of women's lives as they vary within a culture and across cultures. Differences according to sex, gender, class, ethnicity, and age examined.

01:988:201. FEMINIST PRACTICES (3)

Required for major.

Examines development of women's and gender studies as interdisciplinary field of study; explores relationship of feminist scholarship to activism; introduces students to basic research techniques.

01:988:202. GENDER, CULTURE, AND REPRESENTATION (3)

Examines how gender is represented in cultural texts and artifacts; introduces students to theories of representation.

01:988:235. DYNAMICS OF CLASS, RACE, AND SEX (3)

Examination of dynamics of, and connections among, classism, racism, and sexism in contemporary American society; ways they influence and are influenced by the structure of society at large; their effect on individuals; strategies for personal and social change.

01:988:240. GENDER AND SCIENCE (3)

Role of gender, race, and class in production and use of scientific and medical knowledge. Impact of gender bias on research in natural and social sciences.

01:988:285. LESBIANS AND GAY MEN AND SOCIETY (3)

Introduction to various disciplines' contributions to understanding the relationship of homosexuality, particularly lesbianism, to society. Includes a section on the political organization and recent theory coming out of the gay movement.

01:988:301. FEMINIST THEORY: HISTORICAL PROVOCATIONS (3)

Prerequisite: 01: 988:101 or 201 or 202 or 235 or by special permission.

Introduction to feminist theories about women, sex, gender, sexuality, embodiment, politics, social relations; examination of feminist theories' challenge to Western literary, philosophical, and scientific traditions.

01:988:302. FEMINIST THEORY: CONTEMPORARY ENGAGEMENTS (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or by special permission.

Introduction to basic concepts central to contemporary feminist thought; exploration of the critical, productive relationship between feminist and patriarchal theory.

01:988:303. COMPARATIVE FEMINISMS (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or by special permission.

Compares the development of feminist writing in several historical periods across different cultures.

01:988:307. WOMEN AND THE LAW (3)

Areas of law that regulate the position of women, including birth control, abortion, marriage, alimony, child support and custody, child care, education, employment, criminal law (including rape, prostitution, women in prison, and the juvenile justice system), and constitutional rights. Readings in court decisions, statutes, and supplementary materials.

01:988:310. SOUTH ASIAN FEMINISMS (3)

Women's activism in South Asia in autonomous feminist movements, as participants in organized political movements, and in family and community.

01:988:312. AFRICAN FEMINISM (3)

Prerequisite: 01:988:101 or 235.

What feminism means to Africa; how gender affects female socialization, women as state subjects; how diverse African feminist strategies differ from and/or parallel other feminisms.

01:988:317. GENDER AND CONSUMPTION (3)

Prerequisite: 01:988:101, or 201, or 235 or permission of instructor.

Introduces feminist approaches to consumption through readings that examine the relation of consumption to body, race, nation, and sex work.

01:988:318. THE GENDERED BODY (3)

Explores the processes by which the body is gendered in different cultures. How is the relationship between physical body, gender, and sexuality forged?

01:988:321. QUEER CONTEXTS: SAME-SEX DESIRE, CULTURE, AND REPRESENTATION (3)

Cultural construction and representation of same-sex desire in Western societies. Debates about identity, subjectivity, and the uses of experience included.

01:988:326. PSYCHOLOGY OF WOMEN (3)

Credit not given for both this course and 01:830:381.

Evaluation of some major psychological conceptualizations of women in light of current research. Bases for these formulations and their influence on the position of women today.

01:988:329. RACE, GENDER, AND NATION (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or by special permission.

Feminist theories about race, gender, and nation. Focuses on U.S. nation formation, gender and American nationalism, and U.S. hegemony in globalizing world.

01:988:330. MEMOIR AND AUTOBIOGRAPHY (3)

Involves intensive and extensive reading of several women's memoirs, all written within the last 50 years.

01:988:331. THEORIZING SEXUALITY AND GENDER (3)

Examines how sexuality and gender became meaningful categories in Western culture through the emergence of sexual politics and queer theory.

01:988:341. GENDER AND POPULAR CULTURE (3)

Prerequisite: 01:988:101, or 201, or 235 or permission of instructor.

Use of varied theoretical approaches to examine how popular culture texts shape everyday perceptions of race, gender, family, and nation. Texts include film, television, and radio.

01:988:344. WOMEN AND LEADERSHIP (3)

By special permission of instructor. Students for this course must have applied and been accepted into the IWL Leadership Scholars Program.

Course explores women's leadership for social change at work, in politics, communities, and household in a variety of historical and contemporary meetings.

01:988:350. GENDER AND SPIRITUALITY (3)

Class explores women's spirituality, feminist theology, and spiritual systems from around the world. How are spiritual systems and practices gendered?

01:988:368. RACE, GENDER, AND SUBJECTIVITY (3)

Social constitution of the self and communities through emergence and transformation of concepts and categories (race, gender, ethnicity, sexuality) associated with personal identity.

01:988:369. FEMINISM, SPACE, AND VISUALS (3)

Examines how space and vision have been associated with historically developed concepts of femininity and masculinity.

01:988:370. FEMINIST INQUIRY (3)

Prerequisite: 01:988:201 or permission of instructor.

Introduces modes of knowledge production, research methods, and strategies for interdisciplinary feminist scholarship. Required for students pursuing Honors in Women's and Gender Studies.

01:988:371. WOMEN AND SOCIAL MOVEMENTS TO 1945 (3)

Credit not given for both this course and 01:506:313.

In-depth analysis of different ways women have organized for change. Focus on three or four case studies using cross-cultural perspectives to illustrate various themes of gender and collective action by women.

01:988:372. WOMEN AND SOCIAL MOVEMENTS SINCE 1945 (3)

Recommended: 01:988:371. Credit not given for both this course and 01:506:314.

Twentieth-century autonomous women's movements, emphasizing the second wave of feminism and cross-cultural perspectives. Selected case studies to illustrate themes of gender and collective action.

01:988:387. FEMINISM, SIGNS, AND REPRESENTATION (3)

Introduces major theories in contemporary critical theory including structuralism, recent critiques of structuralism, focuses on the models and criteria to analyze cultural and social life.

01:988:398. FREUD AND FEMINISM (3)

Introduces Freudian concepts, methods and terminology, and the corresponding issues and debates in feminist theory.

01:988:399. SERVICE LEARNING INTERNSHIP (1)

Corequisite: Must be taken in conjunction with a designated CASE (Citizenship and Service Education) course offered in the women's and gender studies program.

Community service placement in women's and gender studies.

01:988:405. GENDER AND HUMAN RIGHTS (3)

Prerequisite: 01:988:101, or 235 or permission of instructor.

Examines history and discourse of women's human rights; uses of humanitarian law in wartime; issues of gender-based violence, health, and sexuality.

01:988:406. WOMEN, WORK, AND SOCIAL CHANGE (3)

Study of problems faced by women working in industry, unions, the home, and professions in light of modern agitation and social trends; analysis of sex-differentiated occupations, legislation, and service roles with attention to biological, psychological, and social differences between the sexes.

01:988:425. INTERNSHIP IN WOMEN'S AND GENDER STUDIES (6)

Prerequisite: 01:988:301 or 302 or 303. Permission of associate director required.

Interns work in organizations related to women's and gender studies. Supervision by assigned staff at the placement site. Seminar, student journal, paper, and assessment of work experience required.

01:988:426. INTERNSHIP FOR IWL SCHOLARS (BA)

Prerequisites: Acceptance into IWL Leadership Scholars Program, 01:988:344, or by permission of instructor.

Examination of women, community activism, and leadership for change; explores how women's leadership shapes organizations, social movements, and policy development. Interns work in placements relevant to their policy interests and produce proposals for social action projects.

01:988:430. IWL SOCIAL ACTION PROJECT (BA)

Independent action projects designed to address a particular problem or women's policy issue relevant to the work done at the internship site. Projects include gender component and development of leadership skills. Class meets biweekly.

01:988:481. GENDER, VISUAL POLITICS, AND CULTURAL POLICY (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or permission of instructor.

Fulfills the capstone requirement for the IWL Leadership Scholars Certificate Program.

Examines the history of cultural contexts of visual narratives that address gender and sexuality and their influence on cultural policies.

01:988:482. FEMINISM, POLICY, AND THE POOR (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or permission of instructor.

Fulfills the capstone requirement for the IWL Leadership Scholars Certificate Program.

Explores the contributions of feminist analysis, advocacy and policy making to antipoverty policy and social justice politics.

01:988:485. MOTHERHOOD: NATURE AND CULTURE, POLICY, AND POLITICS (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or permission of instructor.

Fulfills the capstone requirement for the IWL Leadership Scholars Certificate Program.

Investigates how motherhood is shaped by intentional public policies and social, economic, political, and cultural forces in the United States and globally.

01:988:486. GENDER, DEVELOPMENT, ENVIRONMENT: POLICIES, POLITICS, PERSPECTIVES (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or permission of instructor.

Fulfills the capstone requirement for the IWL Leadership Scholars Certificate Program. Credit not given for both 01:070:486 and 01:988:486.

Using ethnography and gender as a category of analysis, examines the experiences and implications of transnational development and environmental policies in specific localities.

01:988:487. LANGUAGE OF WOMEN'S HEALTH AND HEALTH POLICY (3)

Prerequisite: 01:988:101 or 201 or 202 or 235 or permission of instructor.

Fulfills the capstone requirement for the IWL Leadership Scholars Certificate Program.

Examines the creation of narratives of women's health and health policy; through visits from health care experts, considers the impact of these narratives on practice.

01:988:490. SEMINAR: WOMEN AND CONTEMPORARY ISSUES (3)

Prerequisite: 01:988:301 or 302 or 303 or by permission of instructor.

Intensive reading and discussion; designed for graduating seniors. Topic changes annually.

01:988:491. SEMINAR IN WOMEN'S AND GENDER STUDIES (3)

Prerequisite: 01:988:301 or 302 or 303 or by permission of instructor.

Advanced course on a selected topic in women's and gender studies. Paper is required.

01:988:492. SEMINAR: SPECIAL TOPICS IN WOMEN'S AND GENDER STUDIES (3)

Prerequisite: 01:988:301 or 302 or 303 or by permission of instructor.

Selected interdisciplinary topics in women's and gender studies. Past topics included sexuality, popular culture, women and religion, and women and the arts.

01:988:493,494. INDEPENDENT STUDY (3,3)

Permission of associate director required.

Independent study project under the guidance of a faculty supervisor.

01:988:497-498. HONORS RESEARCH IN WOMEN'S AND GENDER STUDIES (3,3)

Open only to seniors who are candidates for honors in women's and gender studies. Permission of associate director required. Both terms required.

Individual research project to be written as honors thesis.