

Academic Projects, Special (SPCL)

Special Academic Projects 11A, 11B, 11C, 11D, 11E, 11F
1-3 s.h. each

Periodically

This course designation allows undergraduates at the University to pursue academic work for credit not usually related to published courses. Projects may include off campus or fieldwork, work study or other academic programs or studies related to a student's general undergraduate career.

This course may be taken again in different semesters, under different subtitles (B-F). Students may not receive more than 6 s.h. toward their degree for work in Special Academic Projects, and only one Special Academic Project may be taken per semester. Grades will be on a Pass/D+/D/Fail basis.

All projects must be contracted for in advance of the semester with a Hofstra faculty member (project adviser), receive the approval of the student's adviser, chairperson and the dean of the school. The number of credits and the subtitle of the project are included in the student's contract with the Hofstra faculty project adviser.

For information, inquire in the appropriate dean's office.

Accounting, Taxation, and Business Law

ACCOUNTING courses are listed below.
BUSINESS LAW and TAXATION courses are listed alphabetically.

Professor Warner, *Chairperson*
Assistant Professor Anthony Basile, *Department Administrator*

Professors Fonfeder, Katz, Lehman, Martin; Associate Professors Bass, Maccarrone, Petra, Slavin, Weisel; Assistant Professors Burke, Jones, Manteen, Marsicovetere, Papa, Patton, Venuti; Special Assistant Professor Holtzman.

THE CHAYKIN DISTINGUISHED TEACHING PROFESSORSHIP IN ACCOUNTING is held by Professor Katz. See page 336.

THE CHAYKIN ENDOWED CHAIR IN ACCOUNTING is held by Dean Polimeni. See page 336.

Accounting (ACCT)

Administered by the Department of Accounting, Taxation, and Business Law. Professor Warner, *Chairperson*

MISSION STATEMENT

The Department of Accounting, Taxation, and Business Law has a strong regional reputation for providing a quality education to aspiring accounting and taxation professionals. The department prepares students for careers in corporate, managerial, small business, governmental, and not-for-profit organization accounting; auditing; taxation; and consulting. It also introduces accounting fundamentals to students preparing for careers in other business areas. The department's primary focus is, and will continue to be, undergraduate education. The department also offers graduate education to enable its students to accomplish professional goals.

The department's curriculum is highly structured and fits within Hofstra University's tradition of viewing the liberal arts as the foundation of education and within the Zarb School's framework that focuses on decision-making in the contemporary global business environment. The department is organized to provide student's with easy access to its faculty who are primarily concerned with excellence in teaching, intellectual contributions to the profession, service to the department, school, university, and community, and active participation in professional organi-

zations. Professional interaction among faculty, practitioners, and students is an important feature of the department, and it is facilitated through involvement with local, regional, and national professional organizations and student groups.

In its future activities, the department will maintain its present focus with a commitment to the continuous improvement of its programs to better serve its students, faculty and the business community.

STRATEGIC PLAN

Several degree programs are offered through the department: Bachelor of Business Administration degree in accounting, Master of Business Administration degrees in accounting and taxation, and Master of Science degrees in accounting and taxation. While each program possesses characteristics unique unto itself, the commonality shared by the programs is the commitment which the department holds to outstanding teaching, intellectual contributions appropriate to advancing both instruction and scholarship in the field of accounting, and activities which provide opportunities to both faculty and students for service to the School and the community.

At the undergraduate level, individuals participate in a course of study leading to professional certification eligibility which is inclusive of a strong foundation in the liberal arts, exposure to the functional areas of business and how they relate to each other, and a concentration in accounting courses which emphasizes the integration of accounting across functional lines.

At the graduate level, the M.B.A. programs in accounting and taxation provide strong foundations in business while enabling students to establish a strong base of specialized knowledge. The M.S. programs in accounting and taxation provide a curriculum highly focused on courses for individuals who want to concentrate their efforts more closely on discipline content and/or who require additional course hours to be eligible for the Uniform Certified Public Accounting Examination.

Throughout each level of instruction, the department recognizes the importance of communications skills and high ethical standards in the practice of accounting, as well as the importance of information technology and the increasingly complex and significant role which the profession has acquired in modern global organizations and emerging market economies.

A participative and supportive environment is provided in the department whereby stakeholders (students, faculty, administrators, business principals, and others) are involved in the evolution of the curriculum. Input is sought from constituencies which regularly recruit and hire graduates from the accounting programs, and evaluations are conducted of the teaching efficacy of faculty by both students and peers at the graduate and undergraduate levels. The environment is further enhanced by the support of both students and faculty which is afforded to the student, professional, and social organizations sponsored by the department.

B.B.A. SPECIALIZATION IN ACCOUNTING: this program qualifies students for admission to the New York State Certified Public Accountant (CPA) examination and to those of many other states. (Note: The New York State Board of Regents has adopted the 150-hour requirement for admission to the CPA examination effective August 2004. Students should check with their major adviser.) Students may select the New York State 150-hour option prior to August 2004. This option reduces the experience requirement for certification to one year. Students planning to obtain CPA licenses in states other than New York should also consider taking the New York State 150-hour option. Majors in accounting must have an overall grade point average of 2.0 in accounting course work at Hofstra. In addition, they must have a C- or better in ACCT 101, 102, 123 and 124 whether taken at Hofstra or transferred in from another institution. Otherwise, these accounting courses must be retaken at Hofstra since no waivers will be granted for them. The requirements are: ACCT 123 & 124, 125, 127, 131, 133, 143, 144; BLAW 24 and electives chosen under advisement.

Recommended sequence: (128-hour B.B.A. program):

Sophomore year	ACCT 101 and 102
Junior year-1st semester	ACCT 123
-2nd semester	ACCT 124
Junior year-1st or 2nd semester	ACCT 127, 131
Senior year-1st semester	ACCT 143, BLAW 24
-2nd semester	ACCT 144
-1st or 2nd semester	ACCT 125, 133

Students may meet the New York State 150-hour requirement by taking one of the following two options:

Option I:

The 152-hour B.B.A. Program in Accounting requires the following *additional* courses (24 s.h.):

- a) ACCT 210 3 s.h.
- b) one of the following
ACCT 128 or 129 3 s.h.
- c) One business elective, selected
under advisement 3 s.h.
- d) five liberal arts electives,
selected under advisement 15 s.h.

Option II:

The B.B.A./M.S. Program option is available for those *qualified students** who choose to pursue an M.S. in one of the following areas: Accounting, or Taxation; *and* who complete the following courses, which will be credited to both the B.B.A. and M.S. degrees:

- a) ACCT 215 instead of ACCT 144
- b) ACCT 242 instead of ACCT 125

*Students selecting the B.B.A./M.S. option must take the Graduate Management Admission Text (GMAT), meet the M.S. admission requirements, and submit the appropriate application after successfully completing a minimum of 88 undergraduate credits, but prior to enrolling in their last semester of their senior year. For complete M.S. requirements, please see the *Hofstra University Graduate Bulletin*.

See complete B.B.A. requirements, page 100.

MINORS IN BUSINESS, see page 101.

The Department of Accounting, Taxation, and Business Law sponsors an internship program available to above-average public accounting majors. Students are eligible for the program in their junior year. Qualifying seniors are placed in accounting positions with leading public accounting firms. Summer internships are also available.

MASTER OF BUSINESS ADMINISTRATION PROGRAMS, see the *Hofstra University Graduate Bulletin*.

MASTER OF SCIENCE PROGRAMS, see the *Hofstra University Graduate Bulletin*.

BUSINESS HONOR SOCIETIES, see page 74.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

101. *Financial Accounting* 3 s.h.
Fall, Spring

Introductory course in the practical applications of financial accounting. Topics include an introduction to financial statements, analysis of the statements, accounting information systems, accounting concepts involved in accounting for cash, accounts receivable, inventory, long lived assets, liabilities and stockholders equity. Ethical issues in accounting are explored.

Computer-based applications for accounting and use of the Internet are employed. Prerequisite: sophomore class standing or above. Credit given for this course or ACCT 1 or 10 or 201. (Formerly ACCT 1; 10.)

102. *Managerial Accounting* 3 s.h.
Fall, Spring

Course provides students with an understanding of concepts that are fundamental to the use of management accounting. Topics include costing concepts and systems, budgeting, cost-volume-profit analysis, financial statement analysis, and the statement of cash flows and other managerial accounting concepts. Prerequisites: ACCT 101 and sophomore class standing or above. Credit given for this course or ACCT 2 or 20 or 201. (Formerly ACCT 2; 20.)

123 & 124. *Financial Accounting Theory and Practice* 3 s.h. each
Fall, Spring

Study of accounting theory and procedures and the special problems that arise in the application of underlying accounting concepts to financial accounting. Focus on the application of accounting information as a basis for decisions by management, stockholders, creditors, and other users of financial statements and accounting reports. Conflicts and shortcomings that exist within the traditional structure of accounting theory, including ethical aspects, are discussed in conjunction with *Opinions* of the Accounting Principles Board, and *Statements* of the Financial Accounting Standards Board. International accounting differences are also considered. Prerequisites: ACCT 2 or 20 or 102, junior class standing or above.

125. *Accounting Entities (Advanced)* 3 s.h.
Fall, Spring

Discussion of advanced theory and problem-solving for partnership formation, operation and termination; an analytical overview of the accounting problems associated with mergers, acquisitions, and the preparation and interpretation of financial reports with respect to the resultant combined corporate entities; translation of foreign financial statements, and governmental fund accounting and not-for-profit accounting. International perspectives and ethical issues are integrated throughout. Recent statements and pronouncements by the American Institute of Certified Public Accountants, the American Accounting Association, and the Securities and Exchange Commission are used throughout the course. Prerequisites: ACCT 124, BCIS 10, or 14, junior class standing or above. Credit given for this course or ACCT 242, not both.

127. *Computer-based Accounting and Tax Systems* 3 s.h.
Periodically

Provides students with an understanding of the impact of computer-based accounting systems on the practice of accounting, the functioning of transaction cycles, control and security concepts, and auditing. Students have hands-on exposure to accounting and tax programs providing them with an in-depth understanding of how these systems can be used to assist clients. Prerequisites: ACCT 2 or 20 or 102, and BCIS 10 or 14, junior class standing or above.

128. *Accounting in a Global Environment* 3 s.h.
Periodically

Discussion of contemporary debates regarding harmonization of accounting standards. Analysis of the differences among countries regarding their economic and social practices and corresponding accounting systems. Specific countries are discussed, and specific auditing and taxation accounting practices and theories are covered. Prerequisites: ACCT 125, junior class standing or above.

129. *Internal Auditing* 3 s.h.
Periodically

Course explores the role of the internal audit function in the management of companies. Topics include: reliability and integ-

city of information; compliance with policies, procedures, laws and regulations; safeguarding of assets; economy and efficiency of operations. The unique ethical considerations affecting the internal audit function are stressed. Prerequisites: ACCT 2 or 20 or 102, and BCIS 10 or 14, QM 1, junior class standing or above.

131. *Cost Accounting Systems* 3 s.h.
Fall, Spring

Various cost accounting concepts and information systems are studied, e.g., production cost systems and computerized management information systems. Topics include job-order costing, process costing, standard costs, direct costing, by-products and joint products, differential and comparative costs. Ethical, environmental and international considerations relating to the production process are discussed. Prerequisites: ACCT 2 or 20 or 102, and BCIS 10 or 14, junior class standing or above.

133. *Auditing Theory and Practice* 3 s.h.
Fall, Spring

The role and function of the independent auditor in the profit-directed sector of the economy is emphasized. The ethical, social, economic and political forces that have influenced the philosophy and conceptual foundations of auditing are covered in depth. Pronouncements by the American Institute of Certified Public Accountants, rulings by regulatory agencies and court decisions are analyzed. Standards that guide the auditor and the methodology used in conducting an audit are covered and illustrated, including audit considerations regarding computerized management information systems. Prerequisites: ACCT 2 or 20 or 102, and BCIS 10 or 14, QM 1, senior class standing.

143. *Income Tax Accounting I* 3 s.h.
Fall, Spring

Analysis of the Federal Income Tax laws, their meaning, application, ethical and international considerations relating to individuals. Prerequisites: ACCT 2 or 20 or 102, senior class standing. (Formerly ACCT 143 & 144.)

144. *Income Tax Accounting II* 3 s.h.
Periodically

Analysis of the Federal Income Tax laws, their meaning, application, ethical and international considerations relating to business entities. Partnership, regular corporations and Subchapter S corporations will be the focus of this course. Prerequisites: ACCT 143 and senior class standing. Credit given for this course or ACCT 215, not both. (Formerly ACCT 143 & 144.)

155, 156. *Readings* 1-3 s.h. each
Periodically

Assigned readings on a tutorial basis; oral or written reports may be required. Prerequisites: ACCT 2 or 20 or 102 and permission of department chairperson.

157, A-Z. *Seminar: Special Topics in Accounting* 3 s.h.
Periodically

An advanced in-depth treatment of special topics. Current topics are explored through a variety of methods, such as lectures, projects and case studies. Prerequisites: ACCT 125, and any additional prerequisites as stated in the course schedule.

As individual subjects are selected, each is assigned a letter (A-Z) which is affixed to the course number. Students may take up to two of these courses to fulfill their major requirements so long as each seminar has a different letter designation. These courses may *only* be taken in addition to the required courses. These courses do *not* qualify for CPA examination credit.

174. *Business Internship* 1-3 s.h.
Fall, Spring

Actual practical experience in an approved setting open to junior and senior accounting majors. Students work a minimum of 40 hours for 1 credit or a minimum of 80 hours for 2 credits or a minimum of 120 hours for 3 credits in a structured accounting program offered by a for-profit or not-for-profit organization.

NOTE: Students may take this course only once. Satisfactory completion of this course counts toward general degree requirements but does not satisfy accounting major requirements. Prerequisites: permission of department chairperson, a minimum grade point average of 2.5 in accounting courses and 2.5 overall, ACCT 124, junior class standing or above.

185. *Internship in Accounting* 3 s.h.
Fall, Spring

A work-study program open to senior accounting majors. Students work a minimum of 120 hours in a structured accounting training program offered by a for-profit or not-for-profit organization. Prerequisites: permission of department chairperson, a minimum grade point average of 3.0 in accounting courses and 3.0 overall, ACCT 124. Corequisite: related course in the area of the internship. (Students who do not meet these requirements, see ACCT 174.) (Formerly *Internship*.)

190. *Honors Essay* 3 s.h.
Fall, Spring

Research for and the writing of a substantial essay in the field of accounting. Open only to senior accounting majors who are eligible for and desire to graduate with departmental honors and who secure, before registration, written permission of the department chairperson. Prerequisites: a minimum grade point average of 3.5 in accounting and 3.4 overall.

Africana Studies (AF ST)

Associate Professor Mwaria, *Director*

The Africana Studies major will introduce the student to an interdisciplinary program that coordinates and develops courses in African and Afro-American life and culture.

B.A. SPECIALIZATION IN AFRICANA STUDIES: a minimum of 30 semester hours of advanced courses (100 level or above) in Africana Studies including AF ST 155, 156, 157; HIST 116; PSC 111 and CLL 193.

No more than 6 semester hours may be taken from any one of the following groups of optional courses in order to fulfill either major or minor requirements except under advisement. Only faculty members teaching in this area will advise students studying for this major or minor.

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| 1) AF ST | 51,52. <i>Readings in African Thought</i> , 1 s.h. each
120. <i>African Labor Economics</i> , 3 s.h.
154. <i>African Humanism</i> , 3 s.h. |
| 2) ANTH | 102. <i>Peoples & Cultures of Africa</i> , 3 s.h.
108. <i>Afro-American Culture</i> , 3 s.h. |
| | SOC 134. <i>Race Relations in the United States</i> , 3 s.h. |
| 3) HIST | 115. <i>The Afro-American in American History, 1619-1865</i> , 3 s.h.
117A. <i>History of Africa to 1800</i> , 3 s.h. |
| 4) ECO | 111. <i>Economic Development in Sub-Saharan Africa</i> , 3s.h.
143. <i>Economic Development</i> , 3 s.h. |
| 5) PSC | 110. <i>African Politics</i> , 3 s.h.
115. <i>State & Metropolitan Politics & Governments</i> , 3 s.h. |
| 6) ENGL | 140, 141. <i>African American Literature I, II</i> , 3 s.h. each |

See complete B.A. requirements, page 79.

A MINOR IN AFRICANA STUDIES consists of the successful completion of 18 semester hours in Africana Studies courses, with at least 6 hours in residence.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during the January and Summer sessions.

Consult the *January* and *Summer Sessions* bulletins for these schedules.

- 51, 52. *Readings in African Thought* 1 s.h. each
Fall, Spring
Each student, in consultation with the instructor, selects a key topic or a prominent figure in the world with African experience and explores the ideas generated by and around the topic or personality.
119. *Blacks and Jews: Interrelation in the Diaspora* 3 s.h.
See course description, page 308.
120. *African Labor Economics* 3 s.h.
See course description, page 308.
122. *Health and Disease in Africa: A Medical Anthropology Perspective* 3 s.h.
See course description, page 308.
123. *Life and Death in the Black Community* 3 s.h.
See course description, page 308.
154. *African Humanism* 3 s.h.
Fall, Spring
African philosophical and religious systems, attitudes and the ways in which those attitudes are reflected in intellectual ideas and national cultures.
155. *African Humanism* 3 s.h.
Periodically
Pan-African protest, revolt and rebellion from the Haitian Revolution to the present.
156. *Economic and Social History of the Caribbean from Slavery to National Independence* 3 s.h.
Periodically
The plantation economy and the evolution of social classes in selected countries.
157. *African National Liberation Movements* 3 s.h.
Fall, Spring
Theory and practice. Ideologies, politics and programs of movements in Namibia and South Africa.

American Literature

SEE ENGLISH

American Studies (AM ST)

Professor of Political Science Landis and Professor of English Couser, *Co-Chairpersons*, American Studies Advisory Committee

Educationally distinctive, American Studies is both intensive, in having America as its unvarying concern, and extensive, in relying upon different disciplines. For the students and teachers involved, American Studies means joining in a shared effort with persons whose concerns are partly, or even largely, at variance with one's own. Such an approach offers a special opportunity to integrate knowledge of American literature, history, politics, economics, art and philosophy into a complex but meaningful whole.

Taking a minor or a major in American Studies permits the student to see a single subject, America, in different ways with the help of various academic departments and disciplines. Such minor and major programs are readily adapted, with advisement, to the needs, abilities and preferences of the individual student.

American Studies is an interdisciplinary alternative for undergraduates looking forward to graduate work and careers in public service, law, higher education, and other fields associated with the social sciences and humanities.

B.A. SPECIALIZATION IN AMERICAN STUDIES: 36 semester hours distributed as follows:

- 1) 3 hours chosen from each of the following categories of primary courses (a-e):
 - a) AM ST 1
 - b) ENGL 51, 52, 143, 144
 - c) HIST 13, 14C
 - d) PHI 148
 - e) PSC 1, 105, 141
- 2) AM ST 145 and 146
- 3) Electives, 15 hours of courses that concentrate upon particular aspects of American Studies (e.g., The Arts in America, American Business and Technology, Immigration and Race in America, The American Political Process, American Social Problems), chosen with the approval of a member of the American Studies Advisory Committee, from the following:

ANTH	101, 108
AH	7, 8, 145
AVF	11
DRAM	140
ECO	131, 140, 171
ENGL	51, 52, 124A, 126, 137, 138, 140, 141, 142, 143, 144, 145A, 146A, 148, 149, 150, 171, 176
FDED	110, 111, 112, 114, 130
GEOG	110
HIST	13, 14C, 29, 30, 115, 116, 124, 143, 144, 145, 146, 147, 148, 149, 151, 152, 153, 154, 157, 160, 162C, 163, 165, 167, 169, 184, 185, 186, 187
MASS	104
MUS	122, 123, 134
PHI	148
PSC	1, 105, 111, 114, 115, 120, 121, 122, 126, 127, 128, 129, 134, 151
SCO	2
SOC	34, 134, 141, 170, 172
SPAN	125, 127

See complete B.A. requirements, page 79.

A MINOR IN AMERICAN STUDIES consists of the successful completion of 18 semester hours as follows: 6 hours of primary courses (see 1 above); 9 hours of electives (see 3 above), approved by a member of the American Studies Advisory Committee; and AM ST 145 or 146. No more than two of the above listed electives offered by any one department participating in the American Studies program may be applied toward the minor. At least six hours must be taken in residence.

COURSES

1. *Creating America's Culture* # 3 s.h.
Periodically
An introduction to the interdisciplinary approach to understanding America which takes as its theme the active principles at work in this country by which a culture, distinct from that of other nations, was, and is formed.
100. *Honors Essay* 3 s.h.
Fall, Spring
Research and writing of a substantial essay or execution and presentation of a creative project. Written analysis on any subject relating to the disciplines encompassed by the field of American Studies. Open only to eligible senior American Studies majors who wish to graduate with honors. Written permission of the instructor supervising the essay or project must be obtained before registration. Cumulative grade-point average must conform with departmental honors as defined under eligibility

#Core course

requirements on page 74. May not be taken on a Pass/D+/D/Fail basis.

145. *Readings in American Studies* 3 s.h.
Every other semester
An exploratory course analyzing American culture through the works of American writers. Each semester centers upon particular themes, ideas or topics broad enough to permit the student to become acquainted with the diversity of America's past and present. Prerequisite: two of the following: ENGL 51, 52, 143, 144; HIST 13, 14C, or permission of instructor.

146. *Seminar in American Studies* 3 s.h.
Every other semester
Each semester some aspect of American culture is chosen as the organizing theme of the seminar. In addition, students will work on individual research problems.

151A. *Individual Readings in American Studies* 1-3 s.h.
Every other semester
Students will read selections assigned by the instructor and prepare written or oral reports. Prerequisite: permission of instructor.

MEMBERS OF THE AMERICAN STUDIES ADVISORY COMMITTEE ARE:

Mark Landis, *Professor of Political Science*
and G. Thomas Couser, *Professor of English* (Co-Chairpersons)
Michael D'Innocenzo, *Professor of History*
Louis Kern, *Professor of History*
Joann Krieg, *Professor of English*
Rosanna Perotti, *Associate Professor of Political Science*
Marc Silver, *Professor of Sociology*
Kathleen A. Wallace, *Professor of Philosophy*

Anthropology (ANTH)

Administered by the Department of Sociology and Anthropology. Professor Abraham, *Chairperson*

Professor Mwaria; Associate Professor Varisco; Assistant Professors Fiorini, Kasmir, Matthews.

LAMBDA ALPHA: a national anthropology honor society, see page 75.

B.A. SPECIALIZATION IN ANTHROPOLOGY: 30 semester hours in anthropology courses including ANTH 1, 3, 137, 145, 185 or 186, and 191. Of the remaining 12 credits, majors are urged to elect at least two area courses.

LING 101 or 151 and AH 114 are recommended electives.

See complete B.A. requirements, page 79.

A MINOR IN ANTHROPOLOGY consists of the successful completion of 18 semester hours, chosen in consultation with an adviser in the department, with at least 9 hours in residence and including at least two of the following courses: ANTH 1, 3 and 4.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1. *Human Evolution in Philosophical Perspective* # 3 s.h.
Fall, Spring
Human origins are reviewed in light of evolutionary theory, recent research on living primates and the fossil record. Concepts of both human nature and culture are defined in evolutionary terms and critiqued with an eye to unraveling the distinctly human capacities for conjugal and extended family life, for symbolic communication and for social contracts that establish the minimal conditions for political order.

3. *Culture, Tradition and Transformation* # 3 s.h.
Fall, Spring

Anthropology has provided many critical revisions of the concept of culture and has thus shaped our modern world view. Is culture synonymous with tradition? How did people's capacity for culture evolve? How do cultures transform themselves? What is the difference between the humanistic and scientific approaches to understanding culture change? How can we use the study of other cultures to understand our own? (Formerly *Primitive World & its Transformations*)

4. *Cultural Diversity* # 3 s.h.
Fall, Spring

Introduces themes of cultural diversity through intensive discussion of ethnographic case studies around the world. (Formerly *Human Condition in Ethnographic Perspective*)

5. *Archaeology: Living in the Material World* # 3 s.h.
See course description, page 308.

12. *Families Cross-Culturally* 3 s.h.
Every other year

Advanced study emphasizing detailed analysis of social and community structures and political, economic and religious institutions. Materials are selected from a wide range of primitive and other nonwestern societies. Prerequisite: ANTH 1. (Formerly *Social Organization of Non-Western Societies*)

32. *Women and Development* # 3 s.h.
Periodically

Examination of the historical transformation of the roles of Asian and African women in relation to the different modes of socio-economic organization of their respective societies. Critical assessment of the impact of social, religious, economic and political systems in defining the status of women in these societies. Credit given for this course or SOC 32, not both.

33. *Archaeological Field Methods* 3 or 6 s.h.
See course description, page 308.

99A, 99B, 99C. *Significant Contributors to Anthropological Theory and Practice* 1 s.h. each

Periodically
A study of the contribution of one important anthropologist such as Franz Boaz, Margaret Mead, Ruth Benedict, Alfred Kroeber, Julian Steward, etc., for a total of 15 hours.

100. *Honors Essay* 3 s.h.
Fall, Spring

The research and the writing of a substantial essay in the field of anthropology. Open only to senior anthropology majors who are eligible for and desire to graduate with departmental honors. Interested students must secure, before registration, written permission of the instructor who will supervise the essay.

101. *The Native Americans* 3 s.h.
Periodically

Native America once comprised one of the most diverse cultural areas in the world. This course explores the relation between Native Americans and the U.S. from the beginning of colonization, through the battle of Little Big Horn, to the image of Native Americans in the media and the contemporary problems faced by indigenous minorities today.

102. *African Cultures* 3 s.h.
Every other year

The continent of Africa is the birthplace of humanity and an area of enormous cultural diversity. This course will examine representative contemporary African societies against a backdrop of social, political and economic change. (Formerly *Peoples and Cultures of Africa*)

#Core course

103. *Peoples and Cultures of Asia* 3 s.h.
Periodically
This survey course will focus in any year on selected anthropological studies for two or three of the following areas: China, Japan, India, mainland Southeast Asia and Indonesia.
105. *Latin American Cultures* 3 s.h.
Every other year
The course focuses on the relations between Latin American cultural expression and the social realities of Mexico, Central America and the Caribbean by exploring the indigenous, European (Iberian), and African origins of Latin American societies. Themes include: the history of European colonization of the Americas; race and class relations in Latin America; traditional and modern forms of cultural expression in the arts, literature, and film and their relation to Latin American culture. (Formerly *Peoples and Cultures of Latin American*)
106. *Peoples and Cultures of the Middle East and North Africa #* 3 s.h.
Periodically
Survey of the region's cultural diversity in historical context. Focus on the impact of Islam, traditional lifestyles and the reaction to colonialization by the West. Emphasis placed on case studies from Egypt, Yemen, the Gulf States, Iraq, Iran and Israel. Critical discussion of the role of anthropology in studying the Middle East. Attention also given to the social context of contemporary issues, such as Islamic fundamentalism, gender roles and recent armed conflicts. (Formerly *Peoples and Cultures of the Middle East*.)
107. *Development, Conservation, and Indigenous Peoples #* 3 s.h.
Once a year
Anthropological contributions to the understanding of indigenous rights, forms of sustainable development, technology transfer and biodiversity issues. The focus is on "indigenous peoples," those societies in place before contact with Western Civilization or missionaries, and their current status. Application of applied anthropological methods in international development agencies (including World Bank, USAID, UNDP) and environmental organizations. (Formerly *Development, Conservation, and Indigenous Peoples in Applied Anthropology*)
108. *Afro-American Culture* 3 s.h.
Every other year
Consideration and analysis of the culture of black Americans and black communities; emphasis is on enculturation processes and social forms resulting from antecedents of African culture and pressures from the dominant American culture. Emphasis is on the legacy of slavery.
110. *Prehistory* 3 s.h.
Once a year
Discussion of prehistoric hunting and gathering sites, early agricultural societies, major royal burials and ancient urban settings. Examination of archaeological data, research methods, dating techniques, artifact analysis, problems of interpretation.
111. *Anthropology and Music* 3 s.h.
Periodically
World music in relation to culture: includes the musical instruments of preliterate peoples and nonwestern societies. Emphasis is on musical styles in appropriate social and cultural context.
112. *Anthropology of the Global Economy* 3 s.h.
Periodically
How do other cultures organize their economic lives? Are there aspects of human economic behavior that are universal, or are our economic motives culturally determined? As capitalism becomes more global, what kinds of native economies and economic principles will it bump up against? In this course, we apply the theory and methods of economic anthropology to look at the full range of economic behavior and organization in world cultures. (Formerly *Economic Anthropology*.)
113. *Archaeology of Civilizations of the New World #* 3 s.h.
Fall, Spring
Study of the present state of archaeological knowledge about the development of such pre-Columbian New World civilizations as the Olmec, Maya, Toltec, Aztec and Inca. Recent archaeological evidence and glyph translations are discussed and analyzed in the context of prevalent theoretical perspectives. Distinctive forms of agriculture, cities and state formation in the New World are presented.
114. *Rise of Civilization* 3 s.h.
Every other year
A study of the nuclear civilizations of the Americas (Peru, Mexico, Guatemala), the Middle East (Mesopotamia, Egypt and periphery) and other areas such as China and India in historical and evolutionary perspective.
115. *Culture and Class: Transcultural Studies in Poverty* 3 s.h.
Once a year
The dimensions of poverty seen in cross-cultural perspective. The examination of subcultural differences in poverty among groups within the same society. Emphasis is on understanding the relationship between the individual and his/her culture, the meaning of ethnicity, and the role of anthropology in clarifying the effect of disadvantage and exclusion of individuals and groups. Prerequisite: ANTH 3 or equivalent.
116. *Religion in Cross-Cultural Perspective #* 3 s.h.
Once a year
An examination of various approaches to the interpretation of religious beliefs and practices. Emphasis on nonwestern belief systems, theories of the function of religion in society, uses of magic and divination within religious traditions, and religion as a mechanism of both social control and social change. Topics include symbolism, myths and rituals in selected societies and the role of the religious practitioner.
117. *Medical Anthropology* 3 s.h.
Once a year
Cross-cultural study of the physical and cultural adaptations of humans to problems of disease: resistance to disease, treatment of disease, treatment of disease and immunity resulting from natural selection.
120. *Cross-Cultural Studies in Conflict* 3 s.h.
Periodically
The study of aggression, socialization and integration in human society. An examination of the archaeological and contemporary evidence of conflict as a cultural phenomenon including the mechanics of conflict resolution in different cultures. Prerequisite: ANTH 3 or equivalent.
121. *Political Anthropology* 3 s.h.
Periodically
Selected survey and analysis of political systems of stateless and preindustrial state societies. Prerequisite: ANTH 3.
125. *The Media in Anthropological Perspective* 3 s.h.
Once a year
Modes of information flow, storage, retrieval and manipulation are examined in cross-cultural perspective. Language and myth, sacred and secular texts, and contemporary electronic (radio and T.V.) media expressions are analyzed in terms of their evolutionary and cultural significance. Critical discussion of major theories of language, mythology and mass communications.

131. *Anthropology and Education* 3 s.h.
Every other year
Social and cultural factors influencing the educational process, includes the application of anthropological methods and concepts in understanding cultural transmission. Emphasis is on comparison of educational systems and the examination of educational procedures in cross-cultural perspective. Same as FDED 131.

132. *Contemporary Italy, an Anthropological View* 3 s.h.
Every other year
The traditional regional cultures of contemporary Italy are analyzed with reference to the fast-growing ethnographic literature dealing with Italy in particular and Mediterranean culture patterns in general. Traditional patterns of land tenure, community organization, family, ritual and folklore are explored as they were affected by the post-Risorgimento and post-war transformations and convulsions of Italian society.

137. *Race and Ethnicity: an Anthropological Perspective #* 3 s.h.
Every other year
Examination of the scientific study of the origin and nature of human physical and ethnic variation and culture contact from an anthropological perspective. Cross-cultural data are used to explore the concept of race, the impact of race thinking, and patterns of culture contact and ethnic relations.

145. *Women and Men in Anthropological Perspective* 3 s.h.
Once a year
Comparison of the attitudes, roles and statuses of men and women in various societies ranging from hunter-gatherers to modern industrial.

148. *Society, Culture and Personality* 3 s.h.
Every other year
Relationship between the individual personality, society and culture. Recent theories and studies of character and social structure. Prerequisite: ANTH 1. Credit given for this course or SOC 148, not both.

151, 152. *Readings in Anthropology* 1-3 s.h. each
Fall, Spring
Readings assigned by the instructor, oral and written reports. Open to students who have completed 12 s.h. of work in anthropology, with permission of department chairperson.

185. *Methods in Anthropology* 3 s.h.
Periodically
A study of methods of fieldwork and analysis in anthropology. Students are asked to do limited work outside the classroom, investigating a problem or problems chosen by the class.

186. *Theory in Anthropology* 3 s.h.
Every other year
The historical development of and present trends in anthropological theory in relation to culture and society. Prerequisite: ANTH 1.

SPECIAL TOPICS: courses numbered 187 and 188 are open to students who have completed at least 6 semester hours in anthropology and/or related social sciences. These courses deal with innovative or advanced topics and may include field projects. Students prepare individual projects on a research theme. May be repeated when topics vary.

Special Topics: major themes in anthropology
Fall, Spring
187, 188, 3 s.h. each
187a, 188a, 2 s.h. each
187b, 188b, 1 s.h. each

191. *Advanced Seminar in Anthropology* 3 s.h.
Periodically
Presentation of a topic that reflects broad understanding of anthropological ideas and modes of analysis with relevance to the

discipline. Through joint readings and individual research, advanced students develop ideas relevant to the theme of the course. Topics vary from semester to semester. Prerequisite: completion of four courses in anthropology or permission of instructor. May be repeated for credit when topics vary. (Formerly *Senior Paper*.)

Applied Physics

SEE PAGE 265.

Arabic (ARAB)

Administered by the Department of Comparative Literature and Languages. Professor Donahue, *Chairperson*

MINOR IN ARABIC, see page 149.

1, 2. *Elementary Arabic* 3 s.h. each
Fall, Spring

Fundamental elements of modern standard Arabic. Basic sentence patterns and grammar are taught through intensive classroom drills and graded reading. Exposure to Palestinian dialect of Arabic.C

3. *Intermediate Arabic* 3 s.h.
See course description, page 308.

4. *Intermediate Arabic* 3 s.h.
See course description, page 308.

101 through 106. *Advanced Arabic Language* 3 s.h.
See course description, page 308.

Art History and Humanities

HUMANITIES PROGRAM AND COURSES are listed independently.

Administered by the Department of Fine Arts, Art History and Humanities. Professor Infield, *Chairperson*

Professors Cohen, Masheck; Associate Professor Lindgren; Assistant Professor Naymark.

Art History (AH)

B.A. SPECIALIZATION IN ART HISTORY: AH 3 or 5, 4 or 6, 74, 101, 102, 106, 119, 120, 164, and 12 additional hours in art history courses, plus FA 8, 9.

See complete B.A. requirements, page 79.

TEACHING OF ART, see page 284.

A MINOR IN ART HISTORY consists of the successful completion of 18 semester hours in art history courses, under advisement, with at least 6 hours in residence.

M.A. PROGRAM IN HUMANITIES, see Graduate Bulletin.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions.

#Core course

Consult the *January* and *Summer Sessions* bulletins for these schedules.

3. *Gods and Kings* # 3 s.h.
Fall

Study of Classical and European art from its prehistoric antecedents to the Gothic Age, with an emphasis on how powerful kings and religious beliefs influenced the forms and styles of architecture, sculpture and painting. Credit given for this course or New College HAH 13, not both.

4. *Religion, Rulers and Rebellion* # 3 s.h.
Spring

Study of European art from the Renaissance to modern times with a focus on how painting, sculpture and architecture were influenced by kings, courts, Christianity and the rebellious spirit of outstanding artists. Credit given for this course or New College HAH 14, not both.

5. *Form in the Art-Work, I* #, 3 s.h.
See course description, page 308.

6. *Form in the Art-Work II* # 3 s.h.
Spring

Analytical study of form in painting, sculpture and architecture emphasizing by comparative method structural significance and expressive values. Emphasis on the modern sense of the "object." Prerequisite: sophomore standing or above. (Formerly AH 5, 6.)

7. *American Art I* # 3 s.h.
Fall

Study of architecture, sculpture, painting and folk art from Colonial times to the end of the Civil War. The beginning of American artistic tradition.

8. *American Art II* # 3 s.h.
Spring

A study of architecture, sculpture, painting and graphic arts, from the Civil war to the end of World War II. Academic tradition, realism, and regionalism compete with modernism as America moves toward a uniquely and entirely American mode of art.

74. *Contemporary Art* # 3 s.h.
Fall, Spring

A topical and analytical study of contemporary art with an emphasis on the philosophical and aesthetic issues of modernism and post-modernism. There are required field trips to New York City during the semester.

100. *Honors Essay* 3 s.h.
Fall, Spring

The research for and the writing of a substantial essay in the field of art history. Open only to senior art history majors who desire to graduate with departmental honors and who secure, before registration, written permission of the instructor who will supervise the project.

101. *Ancient Art* # 3 s.h.
Fall

Architecture, sculpture and painting of Ancient Greece and the Roman Empire with emphasis on the contributions of the earlier cultures of Egypt, the Near East and Ancient Celtic Europe.

102. *Medieval Art* 3 s.h.
Spring

Architecture, sculpture and painting of Europe from c. 300 A.D. to 1400 A.D., with emphasis on the contributions of earlier European and non-European cultures. Style periods such as late Antique, Byzantine, Romanesque and Gothic are covered.

103. *Images: West and East* 3 s.h.
Periodically

Analysis of the intercultural relationships between Europe and Asia as exemplified in the visual arts from Alexander the Great through the 20th century.

106. *Italian Renaissance Art* 3 s.h.
Every other year

Architecture, sculpture and painting in Florence, Rome, Venice, and other cities of Italy from the 14th through the 16th century.

107. *Renaissance Art in Northern Europe* 3 s.h.
Every other year

Architecture, sculpture and painting in Flanders, France, Germany, Spain and England during the 15th and 16th centuries.

109. *Art from the Baroque to Romantic Age* 3 s.h.
Every other year

Analysis of painting during the post-Renaissance, Baroque, Rococo, Neoclassic and Romanticist periods emphasizing old masters such as Caravaggio, El Greco, Velasquez, Rembrandt, Ingres, Delacroix and Turner.

110. *Modern Architecture and Design* 3 s.h.
Every other year

Development of modern architecture as a three-dimensional art in the fine-arts tradition (with some attention to parallels in sculpture) and as part of a new technical approach to "design" under industrialism. Architecture versus mere building; architecture and social life; "functionalism" and the International Style; "post-modernism" and the fate of modernity. Emphasis on works of major American and European masters. No previous knowledge of architecture required. (Formerly *Modern Architecture, Modern Sculpture*.)

114. *Tribal Arts* 3 s.h.
Periodically

A survey of tribal art forms in pre-Columbian America, Africa (West Africa and the Congo) and Oceania (Melanesia and Polynesia) with reference to religious, social and geographical influences. The art of each region is studied within the cultural context. Credit given for this course or New College HAH 6, not both.

118. *Pre-Islamic and Islamic Art* 3 s.h.
Periodically

Origins and development of Islamic art in the Near and Middle East, from the prehistoric age through the 18th century. Emphasis is on the study of Islamic art in Iran and its spread throughout the world in architecture, sculpture, pottery and textile design.

119. *19th-Century Painting in Europe* 3 s.h.
Every other year

Development of modern art during the 19th century, emphasis on the major movements, concepts and artists.

120. *20th-Century Painting in Europe* 3 s.h.
Every other year

A survey emphasizing the concepts entailed in the various styles of 20th century European painting; concentration on the major movements in European painting since post-impressionism. Emphasis on the foundational role of the School of Paris, but also on the emergence of abstraction in Central Europe and the former Soviet Union; rationalist and irrationalist alternatives; response to American ascendancy after World War II; later modernism and postmodernism; problematics of nationalism and internationalism.

145. *American Art* 3 s.h.
Every other year

Art in America from 1620 to the present. Emphasis on architecture, sculpture and painting, and the visual forms are analyzed within the context of American culture.

151. *Readings in Art History* 3 s.h.
Fall, Spring
Specifically designed for concentration in a single area. Open to highly qualified students, normally seniors, who are capable of working independently. Before registering, the student must consult with the faculty member who will act as the tutor. This course is not a substitute for AH 164, *Senior Seminar*.

152. *Venetian Art and Architecture* 3 s.h.
See course description, page 309.

161. *Art of Personal Adornment* 3 s.h.
Once a year
Analysis of the development of clothing design and personal decoration as art forms from Antiquity to the present. Chronologically presented, stylistic changes and fashions are examined within cultural contexts.

164. *Senior Seminar* 3 s.h.
Spring
Open only to seniors specializing in art history or by permission of department chairperson. An intensive study of selected problems in historical research.

165. *Asian Art* 3 s.h.
Periodically
Art forms of India, China and Japan with reference to philosophical, religious and social influences from the prehistoric through the 19th century. Architecture, sculpture, painting and ceramics are analyzed; themes, styles and techniques distinctive of the art tradition of each country are stressed.

168. *Internship* 6 s.h.
See course description, page 309.

170. *Museum Studies* 3 s.h.
Periodically
Students gain theoretical and practical experience in the functions and operation of galleries: cataloging, authentication, insurance and methods of displaying works of art. Visits to museums, guest lecturers and informal seminars. Pass/D+/D/Fail grade only.

187. *Landscape in Art* 3 s.h.
See course description, page 309.

188. *Age of Rembrandt* 3 s.h.
See course description, page 309.

192. *Workshop in Art History* 3 s.h.
See course description, page 309.

Asian Studies (AS ST)

Assistant Professor of Japanese and Comparative Literature
Welch, Director of Asian Studies.

The Asian Studies program is an interdisciplinary program designed to provide the student with a broad understanding of the traditional and modern civilizations of East Asia and Southeast Asia. The Asian Studies program offers both major and minor specialization. Study of an Asian language is strongly recommended for all majors and minors, and language courses beyond level 4 may be counted toward the major requirements.

Students majoring in Asian Studies will choose a core of four courses, concentrating on either traditional or contemporary Asia, and also take a seminar as part of the major. To assure that students receive training in a specific discipline, students are required to complete a minor (18 hours) in the discipline of their choice, in addition to their Asian Studies courses, as a requirement of the major.

B.A. SPECIALIZATION IN ASIAN STUDIES: 30 credits in Asian studies and a minor consisting of 18 credits in an academic discipline, distributed as follows:

- A. 12 credits from four different fields of study of the following:
- AH 165. *Asian Art*, 3 s.h.
 - ANTH 103. *Peoples & Cultures of Asia*, 3 s.h.
 - CLL 149. *Asian Literature: India*, 3 s.h.
 - 150. *Asian Literature*, 3 s.h.
 - ECO 112. *Economic Development of China*, 3 s.h.
 - 114. *Japan's Modern Economy*, 3 s.h.
 - GEOG 113C. *The Geography of East & Southeast Asia*, 3 s.h.
 - HIST 71. *China & Japan to 1800*, 3 s.h.
 - 72C. *China & Japan Since 1800*, 3 s.h.
 - PHI 17. *Introduction to Eastern Philosophy*, 3 s.h.
 - PSC 144. *Asian Politics & Government*, 3 s.h.
 - RELI 15. *Introduction to Eastern Religious Traditions*, 3 s.h.
- B. 15 additional credits in courses chosen from the following:
- AH 165. *Asian Art*, 3 s.h.
 - ANTH 103. *Peoples & Cultures of Asia*, 3 s.h.
 - CLL 149. *Asian Literature: India*, 3 s.h.
 - 150. *Asian Literature: China & Japan*, 3 s.h.
 - 190. *World Literature & the Anatomy of Cultural Difference*, 3 s.h.
 - ECO 112. *Economic Development of China*, 3 s.h.
 - 114. *Japan's Modern Economy*, 3 s.h.
 - ENGL 167. *Post-Colonial Literature of South Asia*, 3 s.h.
 - GEOG 113C. *The Geography of East & Southeast Asia*, 3 s.h.
 - 131. *Japan*, 3 s.h.
 - HIST 71. *China & Japan to 1800*, 3 s.h.
 - 72C. *China & Japan Since 1800*, 3 s.h.
 - 173. *Modern China*, 3 s.h.
 - 174. *Modern Japan*, 3 s.h.
 - 175. *Confucian China: Origins to the 18th Century*, 3 s.h.
 - 177, 178. *Special Studies in History*, 3 s.h. each
 - LING 7. *History of Chinese Calligraphy & Language*, 3 s.h.
 - LIT 80. *Chinese Literature in Translation*, 3 s.h.
 - 88. *Self & Society in Chinese Literature*, 3 s.h.
 - 89. *Beauty & Sadness in Japanese Literature and Culture*, 3 s.h.
 - PHI 17. *Introduction to Eastern Philosophy*, 3 s.h.
 - 60. *Introduction to Chinese Philosophical & Religious Traditions*, 3 s.h.
 - 102. *Mysticism & the Spiritual Quest*, 3 s.h.
 - PSC 144. *Asian Politics & Government*, 3 s.h.
 - 146. *China: Government & Politics*, 3 s.h.
 - 154. *Seminar: Comparative Politics*, 3 s.h.*
 - RELI 15. *Introduction to Eastern Religious Traditions*, 3 s.h.
- C. 3-credit Seminar:
AS ST 195. *Asian Studies Seminar*, 3 s.h.
- D. A minor, consisting of 18 credits, taken in an academic discipline. Courses taken in the major may not be applied toward the minor.

A MINOR IN ASIAN STUDIES consists of the successful completion of 18 semester hours, under advisement in the department. At least six hours must be in residence.

See complete B.A. requirements, page 79.

COURSES

These courses are sometimes offered during the January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

100. *Honors Essay* 3 s.h.
Once a year

Research for and writing of a substantial essay on Asia. Open only to senior Asian Studies majors who are eligible for departmental honors and who secure written permission of the instructor who will supervise the essay.

*Depending on course content.

195. *Asian Studies Seminar* 3 s.h.
Once a year
Examination of selected topics from the perspectives of the several disciplines represented by student and faculty members by means of special lectures and student papers. Open only to Asian Studies Program students in their senior year.

Faculty Offering Courses in Asian Studies and Members of the Asian Studies Committee:

Margaret Abraham, *Professor*, Sociology

Neil H. Donahue, *Professor*, Comparative Literature and Languages

David Flynn, *Professor*, Management and General Business

Warren Frisina, *Associate Professor*, Philosophy

Paul Harper, *Professor Emeritus*, Political Science

Ronald Janssen, *Associate Professor*, English

Keun S. Lee, *Associate Professor*, Marketing and International Business

Arvind Mandair, *Assistant Professor*, Philosophy and Religious Studies

James Neelankavil, *Professor*, Marketing and International Business

Jean-Paul Rodrigue, *Assistant Professor*, Economics/Geography

Sabina Sawhney, *Associate Professor*, English

Patricia Welch, *Assistant Professor*, Comparative Literature and Languages

Astronomy (ASTR)

Administered by the Department of Physics and Astronomy. Professor Hastings, *Chairperson*

Associate Professor Edwards; Assistant Professors Bochner, Lawrence.

A **MINOR IN ASTRONOMY** consists of the successful completion of 18 semester hours of courses, including:

- a) 12 semester hours in Astronomy or Astrophysics, selected from Astronomy 11, 12, 31, 190; Physics 125, 126, and
- b) Physics 1A and B, or 11A and B.

Six semester hours must be completed in residence.

COURSES

These courses are sometimes offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

5, 6. *Fundamentals of Astronomy* 3 s.h. each
Periodically

Elementary treatment of solar system and stellar astronomy. Prerequisites: 1 unit high school algebra; 1 unit plane geometry.

10. *The Universe* 3 s.h.
Periodically

This course is designed for nonscience students. It is intended to present a coherent picture of the universe from the nuclear structure of matter through the solar system and ultimately to stars and galaxies. Credit given for this course or ASTR 11 or ASTR 12 or New College NPG 2.

11. *The Solar System #* 3 s.h.
Fall, Spring

Elementary treatment of the solar system, tracing the development of ideas to the present time. Accompanying laboratory illustrates measurements appropriate to solar astronomy. (2 hours lecture, 2 hours laboratory.) Credit given for this course or ASTR 10, not both.

12. *Stars and Galaxies #* 3 s.h.
Fall, Spring

Elementary treatment of stellar and galactic astronomy, tracing the development of ideas to the present time. Accompanying laboratory illustrates measurements appropriate to stellar and galactic astronomy. (2 hours lecture, 2 hours laboratory.) Credit given for this course or ASTR 10, not both.

31. *Frontiers of Astronomy: Black Holes, Pulsars, Supernovae and Quasars* 3 s.h.

Periodically

Recently discovered astronomical objects are presented from the point of view of the nonphysics major. Cosmological theories such as the Big Bang theory are considered in terms of present day observational effects. Prerequisites: ASTR 11, 12.

190. *Independent Studies* 3 s.h.
Periodically

Advanced topics or research not covered in other astronomy courses. Students undertake an appropriate project under faculty guidance. Projects include but not limited to: collaborative research, observational work, computer modeling and library research. A detailed essay is required. Prerequisite: ASTR 31 or permission of department chairperson. May be repeated for credit when topics vary.

Athletic Training

SEE PHYSICAL EDUCATION AND SPORT SCIENCES

Audio/Video/Film (AVF)

Associate Professor Gershon, *Chairperson*

Professor Delamater, Del Gaudio; Associate Professors Gershon, Kaplan; Assistant Professors Franklin, Katzman, Lisi, Mazzocco, Murillo, Noschese, Wyatt.

BACHELOR OF ARTS PROGRAMS

The Department of Audio/Video/Film offers programs in each of three areas leading to a Bachelor of Arts degree.

Candidates for graduation from the School of Communication with the degree of Bachelor of Arts must fulfill the B.A. requirements as listed under the School of Communication on page 105. In addition, students majoring in Audio/Video/Film must complete the program requirements listed below plus a liberal arts minor from one of the following: any minor in the College of Liberal Arts and Sciences, or the Department of Speech Communication and Rhetorical Studies. The minor must consist of 18 semester hours as defined by that discipline, of which at least 6 hours must be taken in residence.

Audio/Video/Film majors transferring to Hofstra must complete at least 24 hours in residence in the major field of study. Transfer credits are subject to the approval of the Department of Audio/Video/Film of the School of Communication and are approved only for those courses meeting the department's curriculum requirements and course standards.

(NOTE: Major and minor fields will be listed on the student's record. Only courses acceptable for the major may be applied toward the minor. Grades of C- or better are required for the major and minor. Students may not take a course for which they received less than C- in a prerequisite. Pass/D+/D/Fail credit will be given toward an academic major and minor for courses offered only on this basis.)

B.A. MAJOR IN AUDIO/RADIO: 36 s.h.

3 s.h.—SCO 4

15 s.h.—AVF 11, 21, 41, 111, 161

6 s.h.—Chosen from AVF 91, 131, 152

12 s.h.—Chosen under advisement from SPCM 5, any AVF courses, or any MASS courses

The School of Communication also requires that Audio/Radio majors take SCO 2 and SPCM 1.

B.A. MAJOR IN VIDEO/TELEVISION: 37 s.h.

3 s.h.—SCO 4

16 s.h.—AVF 24, 26, 44, 64, 164

3 s.h.—Chosen from AVF 144, 145, 165 or 174

6 s.h.—Chosen from AVF 65, 66, 84, 104, 106, 134, 144, 145, or 184A

#Core course

- 3 s.h.—Chosen from any MASS course
 6 s.h.—Chosen from AVF 170 or any liberal arts courses(s) in the School of Communication.
 The School of Communication also requires that Video/Television majors take SCO 2 and SPCM 1.

B.A. MAJOR IN FILM STUDIES AND PRODUCTION: 36-37 s.h.

- 3 s.h.—SCO 4
 9 s.h.—AVF 10, 27, 47
 9 s.h.—Chosen from AVF 137A, 137B, 138, 139, 157, 158, or 177
 9 s.h.—Chosen from AVF 60, 80, or any 100-level AVF course, chosen under advisement
 3 s.h.—Any other Film Studies or Production course(s) chosen under advisement
 3-4 s.h.—Chosen from AVF 21, 24, 26, JRNL 1, SPCM 5, or any MASS course, chosen under advisement

The School of Communication also requires that Film Studies and Production majors take SCO 2 and SPCM 1.

NOTE: For students interested in majoring in combined disciplines, inquiry should be made in the School of Communication Dean's Office, Room 318, Dempster Hall.

BACHELOR OF SCIENCE PROGRAMS

To qualify for a B.S. major:

- Student must be at least of sophomore standing,
- Student must have obtained a minimum grade of B- in AVF 24 and any subsequent production courses, and
- Student must get permission of adviser and the B.S. programs coordinator.

Candidates for graduation from the School of Communication with the degree of Bachelor of Science must meet the following qualifications:

- Student must complete at least 124 semester hours with at least 24 hours in residence in the major field of study. Transfer credits are subject to the approval of the Department of Audio/Video/Film of the School of Communication and are approved only for those courses meeting the department's curriculum requirements and course standards.
- Student must fulfill the B.S. requirements as listed under the School of Communication on page 106, and
- Student must complete the program requirements listed under one of the B.S. majors listed below.

B.S. MAJOR IN VIDEO/TELEVISION: 94 s.h.

- 9 s.h.—SCO 2, 4, SPCM 1 (see page 107)
 15 s.h.—DRAM 9, ENGL 102, FA 27, SPCM 9 and a literature course, chosen under advisement
 3 s.h.—PHYS 5 or 6
 3 s.h.—CSC 5
 21 s.h.—AVF 14 (5 s.h.), 21, 24, 26, 44, 64
 1 s.h.—AVF 14, 65, 66, or 104
 9 s.h.—Chosen from AVF 106, 134, 144, 145
 6 s.h.—AVF 164, 165
 3 s.h.—AVF 170 or liberal arts electives
 3 s.h.—Chosen from MASS 11 or JRNL 21
 9 s.h.—Chosen from departments within the School of Communication, other than video/television courses, chosen under advisement
 12 s.h.—Chosen from any liberal arts courses, not in the AVF department, chosen under advisement.

B.S. MAJOR IN VIDEO/TELEVISION AND FILM: 94 s.h.

- 9 s.h.—SCO 2, 4, SPCM 1 (see page 107)
 15 s.h.—ENGL 102, DRAM 3, 9, 190, and a literature course, chosen under advisement
 3 s.h.—PHYS 5 or 6
 3 s.h.—CSC 5
 18 s.h.—AVF 14 (5 s.h.), 24, 26, 44, 64
 9 s.h.—AVF 10, 27, 47
 1 s.h.—AVF 14, 65, 66, or 104
 3 s.h.—AVF 60 or 80
 15 s.h.—AVF 110, 144 or 168, 164, 165, 167

- 6 s.h.—Chosen from AVF 84, 134, 137A, 137B, 144, 145, 157 or 158
 3 s.h.—AVF 170 or liberal arts electives
 3 s.h.—Chosen from MASS 11 or JRNL 21
 3 s.h.—Chosen from AVF courses, chosen under advisement
 3 s.h.—Chosen from any liberal arts courses, not in the AVF department, chosen under advisement

B.S. MAJOR IN VIDEO/TELEVISION AND BUSINESS: 94 s.h.

- 9 s.h.—SCO 2, 4, SPCM 1 (see page 107)
 6 s.h.—ENGL 4, 102
 3 s.h.—SPCM 1 or 7
 3 s.h.—Chosen from any literature courses, chosen under advisement
 6 s.h.—ECO 1 or 7, and 2, chosen under advisement
 18 s.h.—AVF 14 (5 s.h.), 24, 26, 44, 64
 1 s.h.—AVF 14, 65, 66, or 104
 12 s.h.—AVF 134, 145, 164, 165
 6 s.h.—AVF 170 or liberal arts electives
 3 s.h.—Chosen from JRNL 21 or MASS 11
 6 s.h.—Chosen from School of Communication liberal arts courses, outside of AVF department, chosen under advisement
 3 s.h.—GB 1 (to be taken during first semester of program).
 9 s.h.—Chosen from BLAW 20, IB 150, MKT 101, MGT 101, chosen under advisement
 9 s.h.—Chosen from Zarb School of Business courses, chosen under advisement. Note: Nonbusiness students may not take more than 24 credits in business courses.

A Minor in Audio/Video/Film consists of the successful completion of 18 semester hours of courses with at least 12 hours in residence, as follows: SCO 4 and 15 additional hours to be taken under advisement.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

10. *Introduction to Film and Television Study* # 3 s.h.
 Fall, Spring
 The basic language of filmic expression and the methodologies of film study, including their influence on television and video, are introduced through analysis of films and television programs. Emphasis is on ways of looking at films and television, the major concepts of theory, the various forms of film and television, and the techniques that determine visual styles. Cannot fulfill core requirement for AVF majors. (Formerly COMM 60, *Introduction to Film Study*.)
11. *History and Theory of Audio and Radio* 3 s.h.
 Fall, Spring
 Introduction to the development of the radio industry, from 1919 to the present, focusing on managerial structure and philosophies, technological changes, programming formats, licensing, and national and international policies. Prerequisite: SCO 4. (Formerly COMM 13, *Survey of Radio*.)
14. *Video Production: Practical Experience* 1-2 s.h.
 Fall, Spring
 Practice in all phases of video production in addition to special projects assigned on an individual basis. Up to 6 s.h. to be applied to the B.S. degree. Open only to B.S. majors. Pass/D+/D/Fail grade only. Prerequisite: AVF 24 or 26. No liberal arts credit. (Formerly COMM 125, *Television Production Practical Experience*.)
21. *Fundamentals of Audio Production* 3 s.h.
 Fall, Spring
 Theories and practices of basic audio production. Course focuses on audio board operations, production formats, microphones,

#Core course

analog and digital recording and playback equipment, and other studio standards. Students are required to be available for production and laboratory time beyond scheduled class time. Admission to class by permission of department. Prerequisite: SCO 4. No liberal arts credit. (Formerly COMM 21, *Fundamentals of Radio Production*.)

24. *Fundamentals of Video: Studio Production* 4 s.h.
Fall, Spring

Introduction to the creative process of video production emphasizing the theory, language and techniques of production as applied in the studio/control room environment. Topics include the moving image, audio, lighting, editing and the integration of the various positions for the multicamera production. Admission to class by permission of department. Students are required to be available for production work beyond scheduled class time. Prerequisite: SCO 4. No liberal arts credit. (Formerly COMM 11, *Basic Television Production*.)

26. *Fundamentals of Video: Field Production and Editing* 3 s.h.
Fall, Spring

Introduction to field video production emphasizing the theories and concepts of production applicable to shooting on location. Studies include applied video techniques and basic post-production editing methods used in electronic news gathering (ENG), satellite news gathering (SNG), and electronic field production (EFP) for various purposes, including news events, documentaries, industrials, educational programming, training and sales promotion. Students are required to be available for production work beyond scheduled class time. Admission to class by permission of department. Prerequisite: SCO 4. No liberal arts credit. (Formerly COMM 124, *Workshop: Electronic Field Production Techniques*.)

27. *Introductory Film Production* 3 s.h.
Fall, Spring

Introduction to film production emphasizing the development of short narrative films and the use of principles of continuity filmmaking. Basic processes of how cameras work and how films are constructed from scripting through editing. Equipment is provided but students will have expenses for film and processing. Admission to class by permission of department. Prerequisites: SCO 4 and AVF 10. (Formerly COMM 61, *Film Theory and Technique I*.)

40. *Television Production* 3 s.h.
Periodically

Practice and theory of the use of video and sound for cognitive and affective communication, stressing the development of creative, original concepts and ingenuity of execution in production and direction. Students are required to be available for production work beyond scheduled class time. Open to nonmajors only. Prerequisite: SCO 4. No liberal arts credit. (Formerly COMM 12A, *Intermediate Television Production*.)

41. *Intermediate Audio Production* 3 s.h.
Fall, Spring

Through the application of theories and practices of audio production, students produce layered audio/radio production appropriate to a variety of formats. Students gain competency in field production, familiarity with emerging technologies and techniques, and mastery of digital editing and multi-track digital mixing. Projects include the conception, writing, and production of newscasts, feature stories, and creative audio pieces. Students are required to be available for production and laboratory time beyond scheduled class time. Admission to class by permission of department. Prerequisite: AVF 21. No liberal arts credit.

44. *Advanced Facilities Training* 3 s.h.
Fall, Spring

Training and practice with broadcast-quality equipment. Basic engineering theory is studied and the core technical areas of high-level equipment are investigated and practiced. Technical preparation for intermediate and advanced production work.

Students are required to be available for production work beyond scheduled class time. Admission to class by permission of department. Prerequisite: AVF 24. No liberal arts credit. (Formerly COMM 119A, 119.)

47. *Intermediate Film Production* 3 s.h.
Fall, Spring

Advanced concepts of film production and the creation of alternatives to continuity filmmaking are practiced through production of short films. Equipment is provided but students will have expenses for film and processing. Admission to class by permission of department. Prerequisite: AVF 27. (Formerly COMM 62, *Film Theory and Technique II*.)

60. *Documentary Film and Video Production* 3 s.h.
Every other year

Students produce and direct individual or group projects that explore issues of documentary. Emphasis is on confronting social and political problems through the media. Equipment is provided but students will have expenses for videotape and film and processing. Admission to class by permission of department. Prerequisite: AVF 26 or 47. (Formerly COMM 171A, *Advanced Film Production*.)

64. *Intermediate Video: Studio Production* 3 s.h.
Fall, Spring

Intensive practice and theory of intermediate video techniques. Methods of communicating various messages through images and sound. Studies of the effects that can be achieved through the use of the camera and the creative development in both narrative and nonnarrative productions. Students are required to be available for production work beyond scheduled class time. Admission to class by permission of department. Prerequisite: AVF 44. No liberal arts credit. (Formerly COMM 17, *Intermediate Production Workshop: Television*.)

65. *A-Z. Video Production Workshop* 1-2 s.h.
Periodically

Intensive examination and practice in specific production duties and responsibilities. Possible topics include directing, associate directing, stage managing, and talent make-up.

As individual topics are selected, each is assigned a letter (A-Z) and added to the course number. Course may be taken a number of times as long as there is a different letter designation each time it is taken. Admission to class by permission of department. No liberal arts credit. (Formerly COMM 15, *Production Workshop—Broadcasting: Television*; COMM 22, *Television Production Workshop: Associate Directing*.)

66. *Video Lighting* 1 s.h.
Once a year

Aesthetic, technical, and theoretical considerations of the art of lighting for video. Study, analysis, and practice of fundamental and intermediate lighting methods for both the studio and field production. Students are required to be available for lighting sessions beyond scheduled class meetings. Admission to class by permission of department. Prerequisite: AVF 44. No liberal arts credit. (Formerly COMM 19, *Television Lighting Workshop*.)

80. *Experimental Film and Video Production* 3 s.h.
Every other year

Students produce and direct individual or group projects that explore issues of nonnarrative and other experimental, self-expressive forms. Emphasis is on experimental combinations of image and sound and alternatives to classic Hollywood style. Equipment is provided but students will have expenses for videotape and film processing. Admission to class by permission of department. Prerequisite: AVF 26 or 47. (Formerly COMM 182A, *Workshop: Experimental Film Production*.)

84. *Alternative Video Production Techniques* 3 s.h.
January

Various theories and demonstrations of the alternatives to live-on-tape production techniques. Evaluations are made of the different methods and their best use. Written analyses of current

broadcast and nonbroadcast methods are required. Admission to class by permission of department. Prerequisite: AVF 44. No liberal arts credit. (Formerly COMM 123, *Workshop: Video Production Techniques*.)

90. *Acting for Television and Film* 3 s.h.
Periodically

Techniques used in acting for the camera. Processes that differ from those used in stage acting. Extending the range of the student actor to include the electronic and film media. Scene study, appropriate projects assigned and substantive written critical evaluations are required. Students are subject to rehearsal and production calls beyond class hours. Prerequisites: DRAM 59 & 60 or permission of instructor. Individual audition required before registration. Same as DRAM 169. (Formerly COMM 169.)

91. *Audio Announcing* 3 s.h.
Spring

Theories and practices of multiple audio announcing formats. Course includes analyzing, scripting and performing the following: dramatic productions, various DJ formats, news, commercial and noncommercial spot reads, and more. Students are required to be available for production work beyond scheduled class time. Audition required for admission. Admission to class by permission of department. No liberal arts credit. Prerequisites: AVF 21 and 111; or permission of instructor. (Formerly COMM 132.)

94. *Television Performing* 3 s.h.
Periodically

Effective presentation of newscasts, sportscasts, interviews, panel discussions and other video forms. Emphasis is on development of the student's own personality and rhetorical talents. Exercises are videotaped, analyzed and criticized by instructors and peers. No liberal arts credit. (Formerly COMM 18.)

100. *Principles of Nonlinear Digital Editing* 3 s.h.
Periodically

A post-production film and video course introducing students to the theories and concepts of nonlinear digital editing using the Avid Media Composer and/or other computer-based systems. Through screenings, lectures, discussions and demonstrations, students learn basic editing concepts and styles and methods of accomplishing various editing tasks. Admission to class by permission of department. Prerequisite: AVF 26 or 47. No liberal arts credit. (Formerly COMM 129.)

104. *Video Graphics* 1 s.h.
Once a year

This course focuses on the artistic elements, design factors, and impact of video graphics. Study of intermediate and advanced operation and production techniques involved in creating computerized graphics for video use. Admission to class by permission of department. Prerequisite: AVF 44. No liberal arts credit. (Formerly COMM 20, *Television Production Workshop: Audio and SEG*.)

106. *Advanced Video Editing* 3 s.h.
Fall, Spring

Emphasis on the use of computerized equipment to facilitate the creative decision-making processes of video editing. Study of how editing choices influence the way viewers perceive programming. Methods of editing drama or comedy, news footage, documentaries, and music are learned. Students are required to be available for editing sessions beyond scheduled class meetings. Admission to class by permission of department. Prerequisite: AVF 64 or permission of instructor. No liberal arts credit. (Formerly COMM 128.)

110. *Film and Television Writing: Theory and Application* 3 s.h.
Once a year

The basic principles of narrative emphasizing plot and character development, film and television screenplay formats, and the process of screenwriting from synopsis through treatments to scripts. Admission to class by permission of department. Prereq-

uisite: AVF 10. (Formerly COMM 103, *Cinema-TV Writing: Theory and Application*.)

111. *Writing for Audio* 3 s.h.
Fall

Applied writing for audio. Formats covered include news, dramatic, commentary, and commercial and noncommercial spot writing. Admission to class by permission of department. Prerequisites: ENGL 1-2 and AVF 21. (Formerly COMM 131, *Writing for Radio*.)

131. *Contemporary Issues in Radio Broadcasting* 3 s.h.
Periodically

An examination, using concepts of cultural studies, of the major social, economic, and political developments shaping the radio broadcasting industry today. Through analysis of historic and current radio programs, the Internet, and books and periodicals, students explore issues such as globalization, consolidation, technological convergence, ownership and programming content, representation, and the future of radio. Prerequisite: SCO 4 or permission of department.

134. *Producing and Television Programming* 3 s.h.
Periodically

The study of research and development methodologies as applied to producing, programming, and distribution. Emphasis is on the producer's need to combine creative abilities and originality with vision, drive, and good business acumen. Course highlights ethics, responsible decision-making, critical thinking, organizational skills, and resourcefulness. Open to juniors and seniors only. No liberal arts credit. Prerequisite: AVF 24 or 26. (Formerly COMM 120, *Producing Reality Programming*.)

137A, 137B. *Film History* 3 s.h. each
Every other year

The development of the motion picture from its origins in the 1890s to the present. The courses confront the issues of world cinema and the historiography of film as seen in the aesthetic, social, economic, and technological forces that influence the development of movies. 137A deals with approximately the first half of film history, 137B with the second. Prerequisite: AVF 10. (Formerly COMM 173, 174, *History of the Motion Picture*.)

138. *Film Adaptation* 3 s.h.
Periodically

Study of the aesthetic and technical aspects and social implications of adapting plays and novels for the screen and remaking movies in different eras. Analysis of how narrative structure is affected by the medium of its presentation as seen through selected stories, novels, and films. Prerequisite: AVF 10. (Formerly COMM 111, *Cinema Adaptation of Plays and Novels*.)

139. *Film Theory* 3 s.h.
Periodically

Study of the various theoretical approaches of how cinema relates to society and the individual. In addition to the classic film theories of Arnheim and Eisenstein, among others, and Bazin's and Kracauer's concepts of film realism, the course confronts issues such as Marxism, feminism, and structuralism and introduces new theoretical concepts as they develop. Prerequisite: AVF 10. (Formerly COMM 176, *Theories of Cinema*.)

144. *Television Directing* 3 s.h.
Fall

The art and style of the television director and the processes involved in producing a television program, from basic concept to final production. Emphasis on creativity and leadership essential to the making of any television project. Students are required to be available beyond scheduled class time. Admission to class by permission of department. No liberal arts credit. Prerequisites: AVF 64 or 84. (Formerly COMM 121, *Television Directing and Producing*.)

145. *Non-Broadcast Video Production* 3 s.h.
Periodically
Development of communication systems for nonbroadcast purposes. Focuses on writing, researching, planning and producing videotape programs for users with specific needs and audiences. Students work with clients through all phases of production from initial contact to completion and presentation of program. Admission to class by permission of department. Prerequisite: AVF 64. No liberal arts credit. (Formerly COMM 197.)
- 150, 151. *Independent Studies/Readings* 1-3 s.h. each
Fall, Spring, Summer
Individualized courses designed to fill gaps in the student's knowledge of audio, video, or film. Ordinarily open to seniors in the Department of Audio/Video/Film who are exceptionally capable of independent work. Before registering for this course, the prospective student must find a member of the department who will agree, in writing, to serve as instructor. Prerequisite: permission of department chairperson. (Formerly COMM 110, *Readings in Communications*.)
152. *The Radio Industry* 3 s.h.
See course description, page 325.
157. *Film Genres* 3 s.h.
Once a year
Studies of genre cinema emphasizing critical and aesthetic analyses of significant types of motion pictures. Possible topics include film comedy, the Western, melodrama, the musical, science-fiction, and animated film. Prerequisite: AVF 10. May be repeated for credit when subject matter varies. (Formerly COMM 112.)
158. *Film Authorship* 3 s.h.
Once a year
Studies of the concepts of film authorship and the auteur theory as applied to the work of particular directors and other filmmaking personnel. Possible topics include the films of Hitchcock, Truffaut, Bergman, or Kubrick, among others; the star as auteur; and the producer or studio as auteur. Prerequisite: AVF 10. May be repeated for credit when subject matter varies. (Formerly COMM 178, *Auteur-Director Series*.)
161. *Advanced Audio Production* 3 s.h.
Spring
Theories and practices of advanced audio production techniques. Course includes conceptualizing, producing, directing, recording, editing and mixing multi-track audio projects. Students are required to be available for production and laboratory time beyond scheduled class time. Admission to class by permission of department. No liberal arts credit. Prerequisite: AVF 41; or permission of instructor. (Formerly COMM 130.)
164. *Advanced Television Production I* 3 s.h.
Fall, Spring
An advanced practicum dealing with creative production in aesthetic and technical phases. Students are responsible for all phases of producing a weekly television series. Open to juniors and seniors only. Admission to class by permission of department. Prerequisite: AVF 64. No liberal arts credit. (Formerly COMM 122A, 122B, *Advanced Television Production I, II*; AVF 164&165, *Advanced Television Production*.)
165. *Advanced Television Production II* 3 s.h.
Spring
An advanced practicum dealing with creative production in aesthetic and technical phases. Students are responsible for all phases of producing independent television programs of various genres. Open to seniors only. Admission to class by permission of department. Prerequisite: AVF 164. No liberal arts credit. (Formerly COMM 122B, *Advanced Television Production II*; AVF 164&165, *Advanced Television Production*.)
167. *Advanced Film Production Workshop* 3 s.h.
Fall, Spring
A study of three major areas of 16mm film production: cinematography (including lighting), sound, and editing. The semester is divided into three segments, one devoted to each area, to allow participants to gain proficiency in the technical aspects of shooting film, recording sound (sync and dubbed), and editing multiple tracks. Equipment is provided but students will have expenses for film and processing. Admission to class by permission of department. No liberal arts credit. Note: When taken in the fall, this course is the first half of a one-year sequence that continues with AVF 168 in the spring. When taken in the spring, it is a stand-alone course. Prerequisite: AVF 47. (Formerly COMM 177, *Workshop: Film Production*.)
168. *Senior Film Projects* 3 s.h.
Spring
Approaching film as a unique means of aesthetic expression, each student participates in a group production of an original student-scripted film. The group participates in every step from story conference through final-edited print. Emphasis is on making aesthetic decisions to create a short narrative film as each student learns all functions but masters one during production and post-production. Equipment is provided but students will have significant expenses for all other aspects of production. Admission to class by permission of department. Note: This course may only be taken as the second half of a one-year sequence that begins with AVF 167 in the fall. Prerequisite: AVF 167. (Formerly COMM 172A, *Film Directing*.)
170. *Internship Program* 1-3 s.h.
Fall, January, Spring, Summer
An internship program provides an opportunity for students to apply their classroom experience to an appropriate professional work setting. Students work with an assigned faculty sponsor and an on-site supervisor. They work a requisite number of hours, keep a daily journal, and write midterm and final papers. Students must be approved for admission into the program before registering. Applications to the program, with information about deadlines, are available in the AVF department office. May be repeated for a total of 6 s.h. AVF 170 and AVF 174 can be taken in combination for no more than 6 credits. Prerequisites: junior class standing; GPA of 2.5 or better overall, the successful completion of 12 s.h. in the major, of which 6 s.h. must be in residence; and an intermediate level course in major. Pass/D+/D/Fail grade only. (Formerly COMM 189A, *Communication Internship*; 170, 171, *Internships*.)
174. *Advanced Video/Television Internship* 3 s.h.
See course description, page 325.
177. *Documentary Film* 3 s.h.
Every other year
A survey of the history of documentary film combined with a study of problems facing documentary film and video makers. Theoretical issues of objectivity, narrativity, social responsibility, and film technique are underlying concerns of documentaries viewed in class. Prerequisite: AVF 10. (Formerly COMM 175.)
- 180-189. A-Z. *Special Topics* 1-3 s.h. each
Periodically
Designed to meet the needs of individual and specific groups of students interested in special topics not covered by other course offerings.
As individual subjects are selected, each is assigned a letter (A-Z) and added to the course number. Any course may be taken a number of times as long as there is a different letter designation each time it is taken.
199. *Departmental Honors* 3 s.h.
Fall, Spring
Individual research project in student's major area, under tutorial supervision. Open only to majors in the Department of Audio/Video/Film who are eligible according to the criteria listed on page 74, and who desire to graduate with departmental

honors. Students should normally start work with their faculty adviser in the semester preceding their registration for this course. Permission of chairperson, prior to registration, is required.

Baccalaureate Programs

SEE PAGE 66.

Biochemistry (BCHM)

Administered by the Department of Chemistry. Associate Professor Finzel, *Chairperson*

The Chemistry Department's program for the B.S. Specialization in Biochemistry is accredited by the American Chemical Society. A student completing this course of study will be awarded a certificate from the Society.

B.S. SPECIALIZATION IN BIOCHEMISTRY: candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra. Military Science 1C, 1E, 2C, 2E and associated leadership laboratories may not be counted toward this total semester hour requirement.
2. At least 62 semester hours must be completed in liberal arts courses outside the Chemistry Department.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. The following general requirements:
ENGL 1-2 or placement examination*
German, French or Russian preferred, completion of level 4 if studied in high school or to level 2 if studied as a new language;
Computer science, 3 semester hours;
Social science and humanities, 15 semester hours of core courses; (social science: 3 hours in behavioral social sciences and 3 hours in history and philosophy; humanities: 3 hours in the appreciation and analysis category (literature) and 3 hours in the creative participation category; and 3 hours from any core category).
For listing of core courses, see page 82.
5. The fulfillment of the following major requirements:
BCHM 162, 163, 173, 176; CHEM 3A & 4A, 3B & 4B, 80, 105, 109, 124, 125, 131A & 132A, 131B & 132B, 141-142, and 180; PHYS 11A & 12A, 11B, 12B; MATH 19, 20; BIO 1 & 2, 135.

A MINOR IN BIOCHEMISTRY consists of the successful completion of 18 hours in chemistry and biochemistry courses including BCHM 162, and 163 or 173, taken under advisement. Courses listed for the minor may not simultaneously be used to satisfy a chemistry minor. Chemistry majors may offer BIO 1 & 2, 135, 137, or 143 as part of the 18 hours for the minor. At least 6 hours must be taken in residence.

COURSES

These courses are sometimes offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

78. *Mechanisms of Disease* 2 s.h.
See course description, page 309.

162. *Molecular Biochemistry I* 3 s.h.
Fall
Mechanisms of enzyme action (the active site); physical-organic interpretation of biochemical reaction mechanisms; enzyme ki-

netics; biochemical energetics; chemistry of proteins, nucleic acids, polysaccharides and lipids; interactions of large molecules; the genetic code; protein synthesis; molecular biology. (3 hours lecture.) Prerequisites: CHEM 131A & 132A, 131B & 132B. Same as CHEM 162, BIO 162.

163. *Molecular Biochemistry II* 3 s.h.
Every other Spring
Selected topics in biochemistry; focus on the control of biochemical processes. Topics may include control of replication, transcription and translation; ribosomes; chromosomes; biochemistry of cancer; allosteric control; membrane structure and function in metabolic and hormonal control mechanisms. (3 hours lecture.) Prerequisite: BCHM 162. Same as CHEM 163.

173. *Experimental Biochemistry* 3 s.h.
Spring
A laboratory course in biochemical methodology. Experiments which illustrate biochemical concepts are emphasized. As time permits, the student will carry out experiments in the following areas: biochemical assays; enzymes (isolation, kinetics); chromatography and electrophoresis; clinical chemistry; physical chemistry of nucleic acids and proteins; radioisotope methodology. (1 hour lecture, 6 hours laboratory.) Prerequisites: BCHM 162 and CHEM 105 and 109. Same as CHEM 173. No liberal arts credit.

176. *Seminar in Biochemistry* 1 s.h.
Every other Spring
Students report on recent journal articles and classical papers in biophysical chemistry. Their impact on current research is considered. (1 hour seminar.) Prerequisite: permission of instructor. Same as CHEM 176.

182 & 183. *Biochemical Research* 1-3 s.h. each
Fall, Spring
The student conducts research under the direction of a faculty member on some topic of mutual interest. The problem will involve both laboratory and library work. (1 hour conference, 3 hours laboratory per credit.) The number of credits will be decided on before registration. Prerequisite: permission of faculty member and chairperson. Same as CHEM 182 & 183. No liberal arts credit.

Biology (BIO)

Professor Seagull, *Chairperson*

Professor Pumo; Associate Professors Burke, Daniel, Morrissey, Sanford, Willey; Assistant Professors Clendenning, Krause, Williams.

THE DONALD E. AXINN DISTINGUISHED PROFESSORSHIP IN ECOLOGY AND CONSERVATION AT HOFSTRA UNIVERSITY. See page 336.

B.A. SPECIALIZATION IN BIOLOGY: students should apply to the department as soon as possible after making the decision to major in biology. Applications are available in the chairperson's office. Advisers are assigned when the student applies for acceptance as a major. The department encourages interested students to speak with a biology adviser about this specialization before declaring a major. Grades in biology lower than a C- do not count toward the total number of semester hours required for the biology specialization.

The following courses are required for the degree:

36 credits in biology including:
BIO 1 & 2 (recommended for Freshman year)
BIO 119, 135, 136, 137 (recommended for Sophomore year)

*See University Degree Requirements, page 71.

One course must be selected from *each* of the following biology categories:

- I. BIO 23, 24, 147, 148A
- II. BIO 143, 147, 150, 151A
- III. BIO 109A, 114, 181
- IV. BIO 144, 149A

Additional electives may be taken from the above categories or from other biology courses with these exceptions: BIO 3, 4, 50, 103, 105, 106, 162.

The following are also required: CHEM 3A & 4A, 3B & 4B, 131A & 132A, 131B & 132B; PHYS 1A & 2A, 1B & 2B or 11A & 12A, 11B, 12B; a core course in mathematics (students planning to pursue advanced degrees in life and health sciences are urged to take MATH 19) and either a second mathematics course or *Biostatistics* (BIO 100), under advisement. BIO 100 may be used to satisfy either a MATH elective or a BIO elective, but not both.

See complete B.A. requirements, page 79.

PRE-ALLIED MEDICAL PROFESSIONS: additional information for biology majors who are planning to enter certification or basic master's programs in physical or occupational therapy or similar programs after graduating from Hofstra need to be aware that most of these programs require courses in addition to those required for a bachelor's degree in biology. The following courses are recommended to allow completion of the requirements for a B.A. in Biology as well as the additional prerequisites for entry into these programs.

The following courses are required: 35 credits in Biology including: BIO 1 & 2 (recommended for freshman year) BIO 119, 135, 136, 137 (recommended for sophomore year)

One course must be selected from *each* of the following biology categories:

- I. BIO 23, 24
- II. BIO 143, 150, 151A
- III. BIO 109A, 114, 181
- IV. BIO 144

One elective biology course. BIO 100 is recommended if not taken as a mathematics requirement.

The following are also required: BIO 103 and 105 (do not count for credit toward the biology major), CHEM 3A & 4A, 3B & 4B, 131A & 132A, 131B & 132B, PHYS 1A & 2A, 1B & 2B, or 11A & 12A, 11B, 12B; a core course in mathematics (MATH 19 recommended) and one other mathematics course or BIO 100 under advisement. BIO 100 may be used to satisfy either a MATH elective or a BIO elective, but not both.

The following courses are also recommended: 9 credits in psychology chosen from PSY 1, 39, 53, 177.

The following courses are required as prerequisites for Physical Therapy and Occupational Therapy Programs by some schools (students should check the prerequisites of the schools to which they intend to apply): BIO 50, 106; PESP 106, 113; MSPE 220.

Please note that this program includes 45 credits of biology without including BIO 50 or 106. If any number of credits above 45 in biology is taken in order to fulfill prerequisites for a post-baccalaureate program, a comparable number of extra total credits over the 124 required for graduation must be taken.

Most post-baccalaureate programs in physical and occupational therapy require at least 200 hours of experience in the field as a prerequisite. Students interested in using this experience to acquire general college credit (6 s.h. maximum) should discuss this with their Biology Department adviser.

For complete B.A. requirements, see page 79.

TEACHING OF HIGH SCHOOL BIOLOGY AND GENERAL SCIENCE, see page 290.

B.S. SPECIALIZATION IN BIOLOGY: students should apply to the department as soon as possible after making the decision to major in biology. Applications are available in the chairperson's office. Advisers are assigned when the student applies for acceptance as a major. The department encourages interested students to speak with a biology adviser about this specialization before declaring a major. Grades in biology lower than a C- do not count toward the total number of semester hours required for this specialization.

Candidates for graduation must successfully complete the following requirements.

1. The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra. Military Science 1C, 1E, 2C, 2E and associated leadership laboratories may not be counted toward this total semester hour requirement.
2. At least 60 semester hours must be completed in liberal arts courses outside the Biology Department.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 20 semester hours in the major field of specialization and the last 30 semester hours. The 20 semester hours need not be included within the last 30 hours.
4. The following general requirements: ENGL 1-2 or placement examination*

Foreign language (same as B.A. requirement, page 79) Core course requirement: (for listing of core courses, see page 82) 6 semester hours in humanities: 3 hours in appreciation and analysis (literature), 3 hours in creative participation; 6 semester hours in social science: 3 hours in behavioral social sciences and 3 hours in history and philosophy.

NOTE: Students who matriculate at Hofstra with advanced standing, must complete at least 3 semester hours in humanities core courses and 3 semester hours in social science core courses in residence. In *no case* may core course requirements be taken elsewhere after matriculation at Hofstra.

5. After completion of the freshman year and each subsequent semester, all B.S. program majors must have a cumulative grade point average of 2.8 or better and a grade point average of 2.8 or better in all BIO courses to remain in the B.S. program. If a student does not maintain the proper cumulative grade point average, he/she will be placed on a one-semester probation. If at the end of the probationary semester his/her grade point average does not meet the requirement, the student will be dropped from the program.
6. The fulfillment of the following major and additional requirements:

45 credits in biology including:

- BIO 1 & 2 (recommended for Freshman year)
 BIO 119, 135, 136, 137 (recommended for Sophomore year)
 BIO 90, 100 (recommended for Junior or Senior year)

One course must be selected from *each* of the following biology categories:

- I. BIO 23, 24, 147, 148A
- II. BIO 143, 150, 151A
- III. BIO 109A, 114, 119, 181
- IV. BIO 144, 149A
- V. BIO 91, 92 (note: BIO 90 is a prerequisite for these courses)

*See University Degree Requirements, page 71.

Additional electives may be taken from the above categories or from other biology courses with these exceptions: BIO 3, 4, 50, 103, 105, 106, 162.

The following are also required: CHEM 3A & 4A, 3B & 4B, 131A & 132A, 131B & 132B; PHYS 1A & 2A, 1B & 2B or 11A & 12A, 11B, 12B; a core course in mathematics (students planning to pursue advanced degrees in life and health sciences are urged to take MATH 19) and a second mathematics course, under advisement. *Biostatistics* (BIO 100) may be used to satisfy a MATH elective (in such cases, and additional 3 semester hours of biology must be completed).

B.S. SPECIALIZATION IN BIOLOGY with a concentration in AQUACULTURE/MARICULTURE: this program trains students in the design, care and operation of aquaculture/mariculture facilities. Numbers 1-4 of the five general requirements listed above for the B.S. Specialization in Biology must be met.

The following courses in biology are required: BIO 1 & 2, 100, 114, 135, 136, 143, 144, 147, 150, either 181 and 182 or 109A; 183, 184, 185 & 186, 187.

The following are also required: CHEM 3A & 4A, 3B & 4B, 131A & 132A, 131B & 132B; PHYS 1A & 2A, 1B & 2B; a core course in mathematics.

Recommended electives: MGT 101, 110; MKT 101; CHEM 105, 109 and 185.

A **MINOR IN BIOLOGY** consists of the successful completion of 18 semester hours of biology courses with a grade of C- or better with the following exceptions: BIO 3, 4, 50, 103, 105, 106, 162. At least 6 hours must be taken in residence.

CERTIFICATE PROGRAM IN NATURAL SCIENCES Post-Baccalaureate Premedical Studies

This program provides the opportunity for students who hold a bachelor's degree and who have not previously studied the sciences to prepare for entrance into a medical profession of their choice. Students may also retake science courses to demonstrate an improved mastery of those subjects. Courses offered in biology, chemistry, mathematics, and physics; see page 70.

PREMEDICAL, PREDENTAL, PREVETERINARY MEDICINE STUDIES

Students who complete the requirements for the B.A. Specialization in Biology or B.S. Specialization in Biology will meet the course requirements for acceptance into most schools of medicine, dentistry, veterinary medicine, etc. Students must take advantage of the advisement offered by the Department of Biology and Premedical/Prehealth Professional Studies Office in the University Advisement Office to make sure that the courses selected to complete degree requirements are appropriate for the post bachelor program of studies they wish to pursue.

BETA BETA BETA: a national biology honor society, see page 75.

BIOCHEMISTRY PROGRAM AND COURSES, see page 136.

MARINE LABORATORY: the Biology Department operates a marine laboratory in Jamaica, West Indies. All students are eligible to enroll in courses. See page 18.

COURSES

In addition to semester notations next to each course, several courses are offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1 & 2. *General Biology* # 4 s.h. each
Fall, Spring

1: Topics emphasized include biochemistry, cell biology, genetics, microbiology and botany. 2: Topics emphasized include ecology, evolution and animal biology. (3 hours lecture, 3 hours laboratory.) Credit given for BIO 2 or New College NBB 1, not both. Course designed for science majors. (Formerly 1, 2.)

3. *Biology in Society* # 3 s.h.
Fall, Spring, Summer

Laboratory and lecture course designed to introduce the student to tenets of modern biology and provide scientific background for current issues involving biology in society. Consideration of the basic principles of ecology, evolution by natural selection, Mendelian and human genetics, and basic gene expression form a foundation for understanding ozone depletion, global warming, loss of habitat, pesticide and antibiotic resistance, and genetic engineering. Laboratory time is used to demonstrate the scientific method, isolate DNA, and provide a hands-on opportunity to survey the Five Kingdoms of living organisms. (2 hours lecture, 2 hours laboratory.)

4. *Human Biology* # 3 s.h.
Fall, Spring

Intended for non-science majors. Lecture and laboratory course designed to introduce students to the basics of human anatomy, physiology, health, and disease. Course focuses on the systems of the vertebrate body: muscular, skeletal, endocrine, nervous, circulatory, immune, respiratory, reproductive, and digestive. Emphasis is placed on using the scientific method to gain new knowledge about how the human body works. Laboratory sessions are used to learn basic microscope technique, investigate the structure and function of the body, and to design and carry out experiments. (2 hours lecture, 2 hours laboratory.)

7. *First-Year Biology Seminar* 1 s.h.
See course description, page 309.

10. *Genetics and Society* 3 s.h.
See course description, page 309.

23. *Developmental Biology* 4 s.h.
Spring

A study of the morphological events that occur during embryogenesis combined with an investigation of the cellular and molecular mechanisms that underlie these events. Surveys the development of a number of animals that have become standard models for studies in developmental biology. Laboratory work includes preparation and investigation of timed embryos, chemical and microsurgical manipulation of embryos, use of molecular markers, tissue culture techniques. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2, 135 and 137. (Formerly *Embryology*.)

24. *Comparative Anatomy* 4 s.h.
Fall

Phylogenetic survey of the anatomy and evolution of organ systems of vertebrate animals. (2 hours lecture, 6 hours laboratory.) Prerequisite: BIO 1 & 2.

25. *General Microbiology* 4 s.h.
See course description, page 309.

50. *Biology of Human Nutrition* 3 s.h.
Spring

Introduction to the biological, chemical and cultural basics of human nutrition: nutrients, metabolism, energy balance, and

human diets. Analysis of dietary trends and fashions in terms of human physiology and culture. (3 hours lecture.) Recommended for nonmajors. No credit toward major in biology. (Formerly *Human Nutrition*.)

80. *Biology Seminar* 1 s.h.
Periodically

Students attend weekly seminars or write a term paper on current topics in biology. Prerequisites: BIO 1 & 2, and permission of adviser from the Department of Biology. May be taken only once for credit. (Formerly BIO 80, 81.)

81. *Introduction to Bioengineering* 3 s.h.
Periodically

A survey of applications of quantitative methods of engineering and physical science to problems in biology and medicine. Topics include biomechanics, including solids and fluids; biotransport in the lung and circulatory system; heat transfer in human and animal systems; biomaterials of surgical implants; biocontrol; and bioinstrumentation. Oral presentation in class and a written report are required. Open to bioengineering and biology majors. (3 hours lecture.) Prerequisite: sophomore class standing or permission of instructor. May not be taken on Pass/D+/D/Fail basis. Same as ENGG 181. (Formerly BIO 179) Same as ENGG 81.

90. *Undergraduate Research I* 2-4 s.h.
Fall, Spring

Students begin an independent research project in biology. Students may choose between a laboratory (BIO 90 and 91) or a library research project (BIO 90 and 92). Students register for BIO 90 with permission of the instructor no later than the first semester of their senior year. During the first semester, students develop their projects, learn necessary techniques and begin their research. Grade is based on a progress report. Highest honors are only given to students enrolled in BIO 90 or 90A and 91. Prerequisites: 2.8 or better GPA, BIO 1 & 2 and permission of instructor. (Formerly *Undergraduate Research*.)

90A. *Introduction to Laboratory Research* 3 s.h.
See course description, page 309.

91, 92. *Undergraduate Research II* 2-4 s.h. each
Fall, Spring

Students continue either a laboratory (BIO 91) or a library research project (BIO 92). Students must complete the research and write a thesis (BIO 91) or essay (BIO 92). Grading is based on the quality of the research, the thesis or essay, and an oral presentation. Students seeking honors in biology must prepare either a thesis or an essay. Highest honors are only given to students enrolled in BIO 90 or 90A and 91. A maximum of 6 credits can be earned for either BIO 90 or 90A and 91, or BIO 90 or 90A and 92. Credit given for either BIO 91 or 92, not both. Prerequisites: 2.8 or better GPA, BIO 90 or 90A and permission of instructor.

100. *Biostatistics* 3 s.h.
Periodically

Fundamentals of descriptive and predictive statistics in biology. Elements of experimental design and analysis of biological data. Topics include measures of central tendency and variability, tests of significance, analysis of variance and correlation. (2 hours lecture, 1 hour recitation.) Prerequisite: algebra. Degree credit given for this course or MATH 8, QM 1, SOC 180 or PSY 140 or New College S 91 or QTB 2. Of these courses only BIO 100 may be used by biology majors for BIO elective credit or to satisfy the mathematics requirement. BIO 100 may be used either for BIO elective credit or to satisfy the mathematics requirement, but not both.

103. *Human Anatomy and Physiology I* 3 s.h.
Fall

Basic histology, anatomy (gross and microscopic) and physiology of the skeletal, muscular and nervous system. Human anatomy is

studied using charts and models. Superficial anatomy is studied on the human body. Dissection of analogous structures on the cat. (2 hours lecture, 3 hours laboratory.) Credit not awarded toward major in biology.

105. *Human Anatomy and Physiology II* 3 s.h.
Spring

Histological, anatomical and physiological aspects of the circulatory, lymphatic, respiratory, endocrine, urinary, digestive and reproductive systems. Human anatomy is studied using human models and charts. Dissection of these systems in the cat. (2 hours lecture, 3 hours laboratory.) Credit not awarded toward major in biology.

106. *Physiology of Exercise* 3 s.h.
Fall

Integration of the body systems and their physiological adjustments as a result of exercise and physical activity. (2 hours lecture, 3 hours laboratory.) Prerequisites: BIO 103, 105. Not open to biology majors.

108. *Ornithology* 3 s.h.
Every other year

Basic biology of birds emphasizing their unique characteristics and the selective forces responsible for their evolution. Laboratory work is almost entirely in the field and will emphasize the behavior, ecology, migration and identification of birds. Prerequisites: BIO 1 & 2 or permission of instructor.

109A. *Tropical Marine Biology* 3 s.h.
Summer Sessions I & II

A field course covering the ecology of the coral reef and tropical shores. Lectures and field work on the taxonomy, physiology, behavior of Caribbean fishes, invertebrates and algae. Twelve day program held at Hofstra's own laboratory in Jamaica. Students participate in sediment and water quality surveys, snorkel on coral reefs, and explore a cave and tropical terrestrial habitats including rocky shores and mangrove swamps. (Equivalent to 2 hours lecture/recitation and 3 hours laboratory.) Prerequisites: BIO 1 & 2 and permission of instructor.

110A. *Field Ecology* 1-3 s.h.
Spring

Lectures on species and ecology of selected geographic regions. Techniques of specimen collection, preservation, field identification, and ecological evaluation of study sites are stressed on field trips and in the laboratory. Prerequisites: BIO 1 & 2 or permission of instructor.

114. *General Ecology* 3 s.h.
Fall

Lecture and discussion of the basic principles determining the distribution and abundance of populations and species, including ecological tests of adaptation. Structure and relationships at the community, landscape, and biosphere levels. Emphasis on applied topics such as pollution abatement, ancient and contemporary climate change, pest and wildlife management, and human population growth. Credit given for this course or New College NBG 1, not both. Prerequisites: BIO 1 & 2, or permission of instructor.

115. *Conservation Biology* 2 s.h.
Spring

Lecture and discussion of the basic principles of the conservation of biological diversity. Review of the main causes of extinction events past and present, sustainable development, and the importance of zoological parks and legislation to species conservation. Prerequisites: BIO 3 and 4, or BIO 1 & 2, or permission of instructor. (Formerly *Conservation of Natural Resources*.)

116. *Terrestrial Vertebrate Natural History* 2 s.h.
See course description, page 309.

117. *Behavior* 3 s.h.
See course description, page 309.

119. *Organic Evolution* 3 s.h.
Spring
The modern synthesis of evolutionary theory, including history of evolutionary thought and controversies over supportive evidence. Topics include tests of natural selection, population genetics, speciation, the neutral theory of evolution, and phylogenetic reconstruction. Emphasis on application of evolutionary theory to real-world problems such as host-parasite evolution, antibiotic and pesticide resistance, and the impact of humans on the evolution of other species. Occasional Saturday field trips required. Prerequisites: BIO 1 & 2, 135 or permission of instructor.
123. *Human Anatomy/Neuroanatomy* 4 s.h.
See course description, page 309.
124. *Mammalian Biology* 3 s.h.
Periodically
An introduction to the study of mammals with special consideration of human beings in the context of mammalian origins and evolution. Focuses on adaptive radiation in morphology, reproduction, ecology, and behavior. Prerequisites: BIO 1 & 2, 24, or permission of instructor.
125. *Elements of Histology* 1 s.h.
See course description, page 309.
133. *Histology* 4 s.h.
Periodically
Microscopic anatomy of mammalian tissues with emphasis on structure-function relationships. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2, and 137.
135. *Genetics* 3 s.h.
Fall, Spring
Fundamental laws concerning the transmission and interaction of genes. (3 hours lecture.) Prerequisites: BIO 1 & 2, or permission of instructor; corequisite for biology majors: BIO 136.
136. *Genetics Laboratory* 1 s.h.
Fall, Spring
Preparation and study of material to demonstrate normal and abnormal cell division, segregation in animals, plants and other genetic techniques. (3 hours laboratory.) Prerequisites BIO 1 & 2; corequisite: BIO 135.
137. *Cell Biology* 3 s.h.
Fall, Spring
Ultrastructure, composition and function of cells and their organelles, DNA replication transcription and translation are covered in depth. Includes a discussion of the major research techniques in cell biology. Prerequisites: BIO 1 & 2, CHEM 3A, 3B; prerequisite or corequisite: CHEM 4A, 4B.
139. *Techniques in Molecular Biology* 3 s.h.
Periodically
This course covers routine and advanced techniques in molecular biology. Theory underlying the techniques is covered in lectures. Techniques are learned in the context of interrelated experiments that address a single research problem. Techniques to be covered include DNA and RNA isolations, acrylamide and agarose gel electrophoresis, recombinant DNA techniques, Southern and Northern blot analysis, PCR, protein isolation and characterization by Western blot analysis and DNA and protein database analysis. Recommended for students interested in biotechnology or research in genetics/molecular biology. (2 hour lecture, 4 hour laboratory). Prerequisites: BIO 135, 136, 137, and permission of the instructor. (Formerly *Techniques in Molecular Biology and Cytochemistry*.)
141. *Biology of the Cardiovascular System* 1 s.h.
Fall
Application of anatomy, physiology, genetics, biochemistry, histology, and cell biology to the study of the cardiovascular system. Emphasis is on the normal functioning of the system as well as an examination of cardiovascular disease, diagnosis, treatment, and pharmacology. The course is recommended for biology or biochemistry students with interests in medicine or health sciences research. One major paper required. Prerequisites: BIO 1 & 2, 135, 136; junior class standing or above. May not be taken on a Pass/D+ /D /Fail basis.
143. *Microbiology* 4 s.h.
Fall
The study of microbial cell structure, physiology, genetics and taxonomy. Laboratory exercises focus on identification, growth, metabolism and genetics of prokaryotes and lower eukaryotes, with special emphasis on bacteria and yeasts. Consideration is given to microbial interactions with the environment and to aspects of pathogenicity and host resistance in response to both bacterial and protozoan infections. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2, 135, CHEM 3A & 4A, 3B & 4B. (Formerly *Bacteriology*.)
144. *Animal Physiology* 4 s.h.
Fall, Spring
Vertebrates are organisms that have come to terms with their environment, internal and external, via natural selection. The lecture emphasizes the classical concept of homeostasis and the modern concept of feedback mechanisms. The laboratory emphasizes the use of instruments in measuring and analyzing physiological parameters. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2, 137; CHEM 3A & 4A, 3B & 4B; PHYS 1A & 2A, 1B & 2B or 11A & 12A, 11B, 12B; or senior status or permission of instructor.
147. *Invertebrate Zoology* 4 s.h.
Fall
Development, physiology, life histories and gross anatomy of representative invertebrate phyla. (3 hours lecture, 3 hours laboratory.) Prerequisite: BIO 1 & 2.
- 148A. *Plant Morphology and Development* 4 s.h.
Periodically
Dynamic aspects of embryology, morphogenesis and development in the higher plants. (3 hours lecture, 3 hours laboratory.) Prerequisite: BIO 1 & 2, 137.
- 149A. *Plant Physiology* 4 s.h.
Periodically
Plant functions including water relations, transpiration, photosynthesis, respiration, mineral nutrition, translocation, photoperiodism and plant hormones. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2, 137; CHEM 3A & 4A, 3B & 4B, 131A & B, 132A, 132B or permission of instructor.
150. *Parasitology* 4 s.h.
Spring
The study of parasitism, parasite-host interactions and disease. Life cycles of parasites in humans and animals and principles of transmission, diagnosis, treatment and prevention. Each student participates in several investigations including tracing the course of malaria in living mice. (3 hours lecture, 3 hours laboratory.) Prerequisite: BIO 1 & 2. Recommended for premedical, pre-dentistry and preveterinary students.
- 151A. *Protozoology* 4 s.h.
Periodically
The biological importance of protozoa. A study of their taxonomy, ecology, morphology, reproduction and physiology. Special emphasis on pathogenic protozoa. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2, 137.
162. *Molecular Biochemistry* 3 s.h.
Fall
Same as BCHM 162 and CHEM 162. Prerequisites: CHEM 132A, 132B.

172. *Algae and Fungi and Their Relation to the Environment* 3 s.h.

Periodically

Designed to acquaint students with the major groups of algae and fungi, with emphasis on study of representatives from Long Island and adjacent areas. Students are involved in the collection of specimens for study through class and individual field trips. Included are the study of aspects of algal and fungal ecology, algae toxic to animals and man, and fungi as agents of plant and human disease. Prerequisite: BIO 1 & 2.

175. *Field Botany* 4 s.h.

Periodically

Designed to acquaint students with the higher plants (mosses, ferns, gymnosperms and angiosperms) found in various habitats. Class consists primarily of field and laboratory work involving observation, collection and identification of higher plants, with some emphasis on distribution of plants among various specific ecosystems. Prerequisite: BIO 1 & 2.

176. *Plant Ecology* 4 s.h.

Periodically

Study of plant autoecology (relationship of the individual plant to its environment) and plant synecology (study of plant communities). Prerequisite: BIO 1 & 2.

177. *Plant Systematics* 4 s.h.

Periodically

Study of current systems of plant classification with consideration given to their historical development and validity based on current knowledge of plant phylogeny. Study of technique of plant systematics and representative plant taxa. Prerequisite: BIO 1 & 2.

181. *Marine Biology* 3 s.h.

Spring

The study of marine organisms and their adaptation to various habitats including intertidal, pelagic, deep sea and coral reefs. Prerequisites: BIO 1 & 2.

182. *Marine Biology Laboratory* 1 s.h.

Spring

The study and identification of marine fish, invertebrates, plankton and algae. Dissections, microscopic analysis and field work will be included. Prerequisites: BIO 1 & 2. Prerequisite or corequisite: BIO 181.

183. *Fundamentals of Aquaculture/Mariculture* 4 s.h.

See course description, page 309.

184. *Advanced Aquaculture/Mariculture* 3 s.h.

See course description, page 309.

185 & 186. *Internship: Aquaculture/Mariculture* 5 s.h. each

See course description, page 310.

187. *Analysis of Aquaculture/Mariculture Internship* 2 s.h.

See course description, page 310.

190. *Special Topics in Biological Sciences* 2 s.h.

Periodically

Advanced topics that are not covered in other biology courses are discussed. The topics vary yearly. May be taken for more than one semester. Prerequisite: BIO 1 & 2.

191. *Oral Biology* 3 s.h.

Periodically

A survey of the subject including lectures on dental evolution, development, dental tissues, gross and microanatomy of the oral cavity, mastication and an introduction to basics on pathology. Prerequisite: junior or senior standing in biology; BIO 1 & 2, 133 recommended. Credit given for this course or *Oral Biology* taken as BIO 190, not both.

Broadcasting

See School of Communication

Business Computer Information Systems and Quantitative Methods

Professor Affisco, *Chairperson*

Linda Schain, *Assistant Chairperson*

Professors Nasri, Paknejad, Silver, Stern, Tafti; Associate Professors Binbasioglu, Chandra, Cosares, Dickman, Guiahi, Lally, Sessions, Stevans; Assistant Professors Klein, Saylani, Soliman, Winston.

Director of Zarb School Networking Instructional Lab Hardiman

THE BRODLIEB DISTINGUISHED PROFESSORSHIP IN BUSINESS IS held by Professor Stern. See page 336.

BUSINESS COMPUTER INFORMATION SYSTEMS courses are listed below.

QUANTITATIVE METHODS courses are listed alphabetically.

Business Computer Information Systems (BCIS)

Administered by the Department of Business Computer Information Systems and Quantitative Methods. Professor Affisco, *Chairperson*

B.B.A. SPECIALIZATION IN BUSINESS COMPUTER INFORMATION SYSTEMS: (all specializations must have prior approval of adviser). BCIS 30; one of the following four courses: BCIS 40, 50, 90, or 95; and 116, 117, and 120. (NOTE: Students who choose the E-Commerce and Internet Technology Track must take BCIS 95.) All students must select one of the following Tracks:

Track I: Information Systems Technology

Required courses (noted above)	15 s.h.
Three BCIS electives, selected under advisement,	
3 s.h. each	<u>9 s.h.</u>
	24 s.h.

Track II: E-Commerce and Internet Technology

Required courses (noted above)	15 s.h.
BCIS 35, 76, 136 (3 s.h. each)	<u>9 s.h.</u>
	24 s.h.

Track III: Network Design and Management

Required courses (noted above)	15 s.h.
BCIS 122, 123 (3 s.h. each)	6 s.h.
One BCIS elective, selected under advisement	<u>3 s.h.</u>
	24 s.h.

See complete B.B.A. requirements, page 100.

A MINOR IN BUSINESS COMPUTER INFORMATION SYSTEMS consists of the successful completion of a minimum of 19 semester hours of course work with grades of C- or better, *under faculty advisement in the Department of Business Computer Information Systems and Quantitative Methods*, with at least twelve semester hours in residence. The requirements are: BCIS 14, 30, and four additional three-credit BCIS courses. A completed minor in business computer information systems will be listed on the student's transcript. NOTE: students who have successfully completed BCIS 9 and 10 are not required to take BCIS 14. Credit will not be given for both this course and BCIS 9 and/or 10.

No School of Business courses may be taken on a Pass/D+D/Fail basis.

Nonbusiness majors may choose a BCIS minor.

No student pursuing a bachelor's degree other than a Bachelor of Business Administration degree may complete more than 30 semester hours of School of Business course work without permission of the School of Business Dean's Office. The student must have the appropriate form approved by and filed with the major and minor departments.

All minors must be declared at the Office of Academic Records.

MASTER OF BUSINESS ADMINISTRATION PROGRAMS, see the *Hofstra University Graduate Bulletin*.

MASTER OF SCIENCE IN COMPUTER INFORMATION SYSTEMS, see the *Hofstra University Graduate Bulletin*.

BUSINESS HONOR SOCIETIES, see page 74.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

9. *Introduction to Microcomputer Tools* 1 s.h. Fall, Spring

Introduction to microcomputers and microcomputer software tools and their applications and ethical use. Focus on PC operating systems, spreadsheets, document management, e-mail, and Internet access. NOTE: Business majors must complete this course as part of their first 30 credits at Hofstra. This course may not be taken concurrently with BCIS 10 (students who need to take both BCIS 9 and 10 should take BCIS 14 instead). Zarb School of Business students may not take this course unless they have prior credit for BCIS 10 or equivalent.

10. *Introduction to Computers in Business* 3 s.h. Fall, Spring

Focus on hardware and software technology and innovations, and the ways in which they are integrated in management information systems. Use of productivity tools and the Internet are emphasized along with business application areas that make use of computing resources and technology. Political, legal and ethical issues relating to security, privacy and copyright protection as they apply to computing are explored. Global communications technologies relating to the Internet and other networks are discussed. Prerequisite: BCIS 9. NOTE: credit will not be given for both BCIS 10 and 14. Students who need to take both BCIS 9 and 10 must take BCIS 14 instead. Zarb School of Business students may not take this course unless they have prior credit for BCIS 9 or equivalent.

14. *Introduction to Computer Concepts and Software Tools in Business* 4 s.h.

Focus on hardware and software technology and innovations, and the ways in which they are integrated in management information systems. Use of productivity tools and the Internet are emphasized along with business applications areas that make use of computing resources and technology. Political, legal, and ethical issues relating to security, privacy, and copyright protection as they apply to computing are explored. Global communications technologies relating to the Internet and other networks are discussed. Hands-on introduction to microcomputers and software tools with a focus on PC operating systems, spreadsheets, document management, e-mail, and Internet access is provided. NOTE: includes 1 s.h. computer laboratory. Credit will not be given for both this course and BCIS 9 and/or 10.

30. *Power Tools for End-User Support* 3 s.h. Fall, Spring

An in-depth study of the software tools used by managers and other end-users to improve their productivity, their decision-making effectiveness and their computer enhanced communica-

tion skills. Focus on microcomputer hardware and software. Topics such as presentation graphics, desktop publishing, operating systems, multimedia and creating and using Internet pages are covered. Students become proficient power users and learn to evaluate software and hardware for accounting, finance, management and marketing problems. Introduces student to Visual Basic. Prerequisite: BCIS 10, 14 or CSC 5.

35. *Multimedia Concepts, Software and Applications* 3 s.h. Once a year

An in-depth treatment of multimedia graphic, sound, animation and video presentations. Multimedia is explored through a variety of methods including hands-on tutorials, lectures, projects, and case studies that include interactivity and hyperlinking. Global, ethical, social and legal issues relating to multimedia are explored. Prerequisites: BCIS 30 or permission of department chairperson; junior class standing or above.

40. *Software Development in Business* 3 s.h. Fall, Spring

A comprehensive programming course focusing on business applications. Students learn how to develop elementary and intermediate programs in Structured COBOL. Topics include basic syntax, structured design concepts and file processing in accounting, finance, management and marketing. The COBOL language is compared and contrasted with other languages. Prerequisites: BCIS 10, 14 or CSC 5; junior class standing or above. With the permission of department chairperson *one* of the following programming courses BCIS 40, 50, 90, or 95 may be taken at the sophomore level.

50. *Object-Oriented Programming* 3 s.h. Once a year

The design, testing, implementation and documentation of accounting, finance, marketing and management applications using C++ as an object-oriented programming language. Program testing and evaluation, object-oriented concepts and documentation are emphasized. An introduction to Java programming is provided. Prerequisites: BCIS 30 or 40; junior class standing or above. With the permission of department chairperson *one* of the following programming courses BCIS 40, 50, 90, or 95 may be taken at the sophomore level. (Formerly *Advanced Business Application Programming; Intermediate and Advanced Business Application Programming*.)

76. *Introduction to Electronic Commerce* 3 s.h. Fall, Spring

An introduction to electronic commerce from both the technical and the business perspectives. Topics include understanding how the Internet and the World Wide Web enable new business opportunities, choosing the appropriate software for electronic commerce, an overview of security issues and currently available methods for securing transactions. Principles of electronic payment, strategies for successfully reaching customers, streamlining value chain activities and doing global business on the Web. Electronic markets, legal and ethical considerations, and preparing a business plan for electronic commerce will be considered. Prerequisites: BCIS 30 or permission of department chairperson; junior class standing or above.

90. *Interface Design and Programming in Visual Basic* 3 s.h. Fall, Spring

A focus on Visual Basic as a tool for development, testing, implementation, and documentation of Windows-based business applications. Topics include event-driven programming, string and arrays handling, graphics, and linking of applications. Prerequisites: BCIS 30; junior class standing or above. With the permission of department chairperson *one* of the following programming courses BCIS 40, 50, 90, or 95 may be taken at the sophomore level. (Formerly *Survey of Business Programming Languages*.)

95. *Introduction to Java* 3 s.h.
Fall, Spring
This course provides software developers with the knowledge and skills to use Java to build Internet and Intranet applets and Windows applications. Topics include overview of the Java virtual machine, Java classes and method, instantiating Java objects, access method, creating Java applets, the Java applet life cycle, inheritance and polymorphism, and Java class libraries. Prerequisites: BCIS 10 or 14; junior class standing or above. With permission of department chairperson *one* of the following programming courses BCIS 40, 50, 90, or 95 may be taken at the sophomore level.
115. *Introduction to Simulation* 3 s.h.
Periodically
Introduction to modeling. Classifications and properties of elementary simulation models and simulation languages. Computer-based simulation models using a general programming language and a specialized simulation language (GPSS). Application areas in production management, marketing, capital investment devaluation, information systems, mechanized equipment and computer systems. Prerequisites: QM 1 and knowledge of a programming language; junior class standing or above.
116. *Structured Systems Analysis and Design* 3 s.h.
Fall, Spring
Advanced course in structured analysis and design of computerized information systems in accounting, finance, management, marketing, and other application areas. Topics include Systems Life Cycle methodologies, Data Flow Diagrams using CASE tools and rapid prototyping techniques. Ethical and global issues are considered. Emphasizes design issues such as user involvement and the selection of appropriate methodologies. Course requirements include designing a system using a CASE tool for implementation on either a mainframe or microcomputer. Prerequisites: one of the following courses: BCIS 40, 50, 90, 95 or permission of department chairperson; junior class standing or above. (Formerly *Data Systems and Management*.)
117. *Database Management Systems* 3 s.h.
Fall, Spring
Advanced course on database management systems (DBMS) concentrating on the relational data model and the SQL language. Covers theory of the relational data model contrasting it with earlier models. Database design is developed in the context of the overall design of an information system in accounting, finance, management, marketing, and other application areas. Topics include conceptual, logical, and physical database design, including data normalization and integrity constraints. Distributed database systems in a global business environment and issues related to data accuracy, security, privacy, and threat to individual rights are explored. Course requires designing and implementing databases using a mainframe and/or micro DBMS. Prerequisites: one of the following courses: BCIS 40, 50, 90, 95 or CSC 120 or permission of department chairperson; junior class standing or above.
118. *Oracle SQL Programming* 3 s.h.
Once a year
A practical course covering the concepts of relational database management systems (RDBMS), Structured Query Language (SQL), and PL/SQL. Topics include conceptual design, relational systems design, normalization and denormalization processes and Structured Query Language and its components such as data manipulation commands. Other topics covered are advanced queries, joins, outer joins, subqueries, group functions, formatting query results, triggers, and stored procedures. Special emphasis on data security, data integrity, query optimizations, and database administration. Prerequisites: BCIS 117; junior class standing or above.
120. *Connectivity in the Business Environment* 3 s.h.
Fall, Spring
Explores the various ways information is shared among networked computer systems. Integrates MIS and telecommunication concepts to enable business managers to select, implement, manage and evaluate computer networks. Topics also include data communication needs of organizations in a global environment. Legal and ethical issues related to planning, design, implementation, and use of networks, including that of the Internet are discussed. Course project involves use of LAN management software. Prerequisites: BCIS 30; junior class standing or above. (Formerly *Selection and Evaluation of Hardware and Software; Business Computer Data Communication*.)
122. *Networking Technologies Utilizing Microsoft Software* 3 s.h.
Once a year
An in-depth study of networking technology involving the use of Microsoft Corporation network software. Topics include a study of Windows 98 and 2000 network components and Windows NT Client Server. Global considerations involve the study of the Internet Information Server and Exchange Server. Issues of ethics, software piracy, and global access considerations will be discussed. Numerous course projects, including the construction of a LAN with all of its component parts will be an integral part of this course. Prerequisites: BCIS 120; junior class standing or above.
123. *Networking Technologies Utilizing Novell Software* 3 s.h.
Once a year
An in-depth study of networking technology involving the use of Novell Corporation network software. Topics include a study of Windows 98 and 2000 client network components, and NetWare 5/0 Server. Global considerations involve the study of NDS for both NetWare and NT. Issues of ethics, software piracy, and global access considerations will be discussed. Numerous course projects, including the construction of a LAN with all of its component parts, will be an integral part of this course. Prerequisites: BCIS 120; junior class standing or above.
125. *Managing the Systems and Information Processing Function* 3 s.h.
Periodically
Study of the systems and information processing function from a strategic planning perspective. The methods appropriate for information resources planning discussed within the framework of overall corporate strategy. Topics include information systems, strategic planning, capacity planning, facilities management, evaluation and control, data processing staff planning, and hardware and software evaluation and selection. Prerequisite: BCIS 116; junior class standing or above.
136. *Advanced E-Commerce Technology and Applications* 3 s.h.
Once a year
This course provides advanced knowledge and skills needed to use Java and markup languages to build E-Commerce applications. Java topics include inheritance, Abstract Windows Toolkit, Layout Managers, Event Model, and Multithreading. Coverage of XML and an introduction to JavaScript is also included. Additional topics of discussion include data mining and warehousing, server infrastructure including architecture, web servers, database servers, and transaction servers. Prerequisites: BCIS 76, 95, 116, 117, 120; junior class standing or above.
- 151, 152. *Readings* 1-3 s.h. each
Fall, Spring
Assigned readings, individual research and projects on selected topics such as systems or software design and development, and computer applications. Taught on a tutorial basis. Prerequisites: BCIS 116, 117, or 120; and permission of department chairperson.

157, A-Z. *Seminar: Special Topics in Business Computer Information Systems* 3 s.h.
Periodically

An advanced in-depth treatment of special topics. Current topics are explored through a variety of methods, such as lectures, projects and case studies. Prerequisites: BCIS 10 or 14, junior class standing or above, and any additional prerequisites as stated in the course schedule.

As individual subjects are selected, each is assigned a letter (A-Z) which is affixed to the course number. Students may take up to two of these courses to fulfill their major requirements so long as each seminar has a different letter designation.

174. *Business Internship* 1-3 s.h.
Fall, Spring

Actual practical experience in an approved setting open to junior and senior business computer information systems majors. Students work a minimum of 40 hours for 1 credit or a minimum of 80 hours for 2 credits or a minimum of 120 hours for 3 credits in a structured business computer information systems program offered by a for-profit or not-for-profit organization. NOTE: Students may take this course only once. Satisfactory completion of this course counts toward general degree requirements but does not satisfy business computer information systems major requirements. Prerequisites: permission of department chairperson, a minimum grade point average of 2.5 in business computer information systems courses and 2.5 overall, BCIS 116 or 117; junior class standing or above.

179. *Business Computer Project* 3 s.h.
Once a year

A capstone course using concepts learned in earlier courses. Students develop a complete business information system in accounting, finance, management, or marketing, or a management information system integrating their computer expertise with their business background. Students must choose a project, identify and document the user's needs, develop the specifications, write the programs and implement the project with supporting documentation. Course applies systems and database design, telecommunications and programming concepts to business problems. Prerequisites: BCIS 116, 117, 120; senior class standing and permission of department chairperson.

182. *Decision Support and Expert Systems* 3 s.h.
Once a year

Techniques for problem solving and decision making. Focuses on areas in which computers can be used to support selection of decision alternatives. Students are provided with software tools for implementing decision support and expert systems which go beyond traditional file and information manipulation programs. Prerequisites: BCIS 116 and 117; junior class standing or above.

185. *Internship in Business Computer Information Systems* 3 s.h.
Fall, Spring

A work-study program open to senior business computer information systems majors. Students work a minimum of 120 hours in a structured business computer information systems training program offered by a for-profit or not-for-profit organization. Prerequisites: permission of department chairperson, a minimum grade-point average of 3.0 in business computer information systems courses and 3.0 overall, BCIS 116 and 117. (Students who do not meet these requirements, see BCIS 174.) (Formerly *Internship*.)

190. *Honors Essay* 3 s.h.
Fall, Spring

Research for and the writing of a substantial essay in the field of business computer information systems. Open only to senior business computer information systems majors who are eligible for and desire to graduate with departmental honors and who secure, before registration, written permission of the department chairperson. Prerequisites: a minimum grade-point average of 3.5 in business computer information systems and 3.4 overall.

Business Law (BLAW)

Administered by the Department of Accounting, Taxation, and Business Law. Professor Warner, *Chairperson*

A MINOR IN BUSINESS LAW consists of the successful completion of a minimum of 18 semester hours of course work with grades of C- or better, *under faculty advisement in the Department of Accounting, Taxation, and Business Law*, with at least 9 semester hours in residence. The requirements are: BLAW 20 and five additional three-credit courses chosen from the following: BLAW 23, 24, 25, 114, 115, 116, 117, 118, 119, 157, A-Z. A completed minor in business law will be listed on the student's transcript.

No School of Business course may be taken on a Pass/D+ /D/Fail basis.

Nonbusiness majors may choose a business law minor.

No student pursuing a bachelor's degree other than a Bachelor of Business Administration degree may complete more than 30 semester hours of School of Business course work without permission of the School of Business Dean's Office. The student must have the appropriate form approved by and filed with the major and minor departments.

All minors must be declared at the Office of Academic Records.

COURSES

These courses are sometimes offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

20. *Introduction to Legal Systems, Environment and Contracts* 3 s.h.

Fall, Spring

Introductory course explaining the nature and ethics of law on a domestic and international scale, its sources, its relation to profit and not-for-profit organizations, and to society and government; law as an instrument of social change with reference to regulatory agencies, labor relations, antitrust, consumerism, environmental issues and contracts.

23. *Contract Law* 3 s.h.
Periodically

A study of the fundamental elements of contracts as defined by the common law, the Uniform Commercial Code (UCC), and the United Nations Convention on Contracts for the International Sale of Goods (CISG); contracts and commercial transactions in contemporary business situations; including e-commerce; the relationship between contract law and the general legal environment, particularly ethical and international considerations; fundamentals of contract negotiations, drafting, damages, and dispute resolution. Actual contracts and cases are studied. Prerequisite: BLAW 20.

24. *Legal Aspects of Business Organizations and Activities* 3 s.h.
Fall, Spring

The law as it pertains to profit and not-for-profit organizations. Topics include negotiable instruments, personal property, bailments, secured transactions, surety, agency, partnerships, corporations, insurance, real property, wills and estates. Required for accounting majors.

25. *Legal Research and Writing* 3 s.h.
Periodically

Provides the non-lawyer with the basic skills of law library research and legal writing. Covers methods of defining and researching legal issues; use of law library reference tools, such as codes, administrative regulations, digests, case law and computer information services; writing exercises stressing clear, concise legal expression, citation and terminology. Research in a selected area of business law is undertaken. Prerequisite: BLAW 20.

114. *Labor and Employment Law* 3 s.h.
Periodically

Interplay of governmental regulation, legislation, and judicial interpretation in the context of labor and employment law. Topics include labor-management relationships and the role of the federal regulatory agency, National Labor Relations Board (NLRB), in this area. Other topics include worker protection, both physical and economic protection of employees and employment discrimination. The federal regulatory agencies, Occupational Safety and Health Administration (OSHA) and Equal Employment Opportunity Commission (EEOC) are highlighted. Prerequisite: BLAW 20.

115. *Wills, Trusts and Estates* 3 s.h.
Periodically

Provides students and those considering a planning career an awareness and overview of the legal concepts in financial and estate planning. An examination and analysis of the need for planning and family wealth conservation, the laws of gifts, intestacy, wills, nature and objectives of trusts and their implications on estate planning, incidents affecting distribution of property, analysis of funding plans, business planning as it relates to the estate and an examination of the fiduciary and ethical considerations of probate and estates. Prerequisite: BLAW 20.

116. *Cyberlaw: Law for the Internet and Technology* 3 s.h.
Periodically

Legal principles applicable to the Internet and other advances in technology. Jurisdiction, trademarks, copyrights, contracts, privacy, defamation, security, global, and ethical issues. Prerequisites: BLAW 20 and BCIS 10 or BCIS 14 or CSC 5. (Formerly *Legal Aspects of Computers and Computer Use*.)

117. *Law in the Global Economy* 3 s.h.
Periodically

Examination of the legal implications of various forms of international business; trade, licensing, trademarks and franchising, foreign investments, mergers, acquisition and joint ventures. Legal issues in the global marketplace and their impact on international organizations; international and regional cooperation. Examination of activities by American companies overseas, legal disputes with foreign states, international trade, United States trade laws, extraterritorial application of United States laws. Prerequisite: BLAW 20.

118. *Litigation and Alternate Dispute Resolution* 3 s.h.
Periodically

A consideration of domestic and international litigation, negotiation, mediation, fact-finding, arbitration, and recently developed variations of the foregoing. Emphasis on the extent to which these various methods of dispute resolution can be developed and controlled by the disputing parties themselves and/or by the courts. Historical development of ADR and emerging ethical issues are considered. Prerequisite: BLAW 20. Same as MGT 118.

119. *Advanced Legal Aspects of Business Organizations* 3 s.h.
Periodically

An examination and analysis of the laws of agency, partnership and corporations. Discussion and analysis of various business entities. Legal issues related to organization, management, fiduciary roles, authorities and governance are addressed. Analysis of interrelationship and duties of partners, officers, directors and shareholders. Issues affecting business planning, securities regulations, mergers and acquisitions, antitrust and trade regulations, ethical issues, corporate responsibility, and international consid-

erations are covered. Prerequisite: BLAW 20 or permission of department chairperson.

125. *Entertainment Law and Business* 3 s.h.
Periodically

This course examines the impact of the business opportunities, economic risks, legal structures and regulatory environment associated with the entertainment business. The diverse elements of our legal system, such as contracts, employment, intellectual property, torts, etc., are applied to each of the major fields of entertainment, i.e. theater, motion pictures, television, music, publishing and advertising. Further, the entertainment industry is studied in conjunction with the business practices and industry standards of each particular field. Prerequisite: BLAW 20.

157. A-Z. *Seminar: Special Topics in Business Law* 3 s.h.
Periodically

An advanced in-depth treatment of special topics. Current topics are explored through a variety of methods such as lectures, projects and case studies. Prerequisites: BLAW 20, and any additional prerequisites as stated in the course schedule.

As individual subjects are selected, each is assigned a letter (A-Z) which is affixed to the course number.

Students pursuing a business law minor may take only one of these courses to fulfill their minor requirements.

Business, Zarb School of

SEE PAGE 98.

Chemistry (CHEM)

Associate Professor Finzel, *Chairperson*

Professors Cassidy, Ryan; Associate Professors Brack, Novick, Strothkamp, Wachter-Jurcsak; Assistant Professors Lloyd, Nirode.

B.A. SPECIALIZATION IN CHEMISTRY: CHEM 3A & 4A, 3B & 4B, 80, 105, 109, 124, 125, 131A & 132A, 131B & 132B and 134B, 141-142, 147, and one course chosen from 171, 180, or 191; MATH 19, 20, 29; PHYS 11A & 12A, 11B, 12B; CSC, 3 semester hours under advisement. The language requirement for the B.A. should preferably be fulfilled in German or French. Students who plan a professional career in chemistry and who intend to go on to graduate work will elect CHEM 180. MATH 131 is strongly recommended.

See complete B.A. requirements, page 79.

The Chemistry Department's program for the B.S. Specialization in Chemistry is accredited by the American Chemical Society. A student completing this course of study will be awarded a certificate from the Society.

B.S. SPECIALIZATION IN CHEMISTRY: this program is designed to provide students with a strong foundation in chemistry. It is especially recommended to those students preparing to enter industry or to pursue graduate work.

Candidates for graduation must fulfill the requirements listed below:

1. The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra. Military Science 1C, 1E, 2C, 2E and associated leadership laboratories may not be counted toward this total semester hour requirement.
2. At least 65 semester hours must be in liberal arts courses outside of the Department of Chemistry.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.

4. The following general requirements:
ENGL 1-2 or placement examination†;
German, French or Russian preferred, completion of level 4 if studied in high school or to level 2 if studied as a new language;
Social science and humanities, 15 semester hours of core courses; (social science: 3 hours in behavioral social sciences and 3 hours in history and philosophy; humanities: 3 hours in the appreciation and analysis category (literature) and 3 hours in the creative participation category; and 3 hours from any core category).

For listing of core courses, see page 82.

5. The fulfillment of the following major and additional requirements:

CHEM 3A & 4A, 3B & 4B, 80, 105, 109, 124, 125, 131A & 132A, 131B & 132B and 134B, 141-142, 147, 148, 171, 180, 191, and 3 hours of research; BCHM 162; MATH 19, 20, 29; PHYS 11A & 12A, 11B, 12B; CSC, 3 semester hours under advisement. MATH 131 is strongly recommended.

TEACHING OF HIGH SCHOOL CHEMISTRY AND GENERAL SCIENCE, see page 290.

A MINOR IN CHEMISTRY consists of the successful completion of 18 semester hours of chemistry courses, under advisement, excluding CHEM 1, and including at least 2 semester hours in courses other than CHEM 3A&B, 4A&B, 131A&B, and 132A&B. At least 6 hours must be taken in residence.

CERTIFICATE PROGRAM IN NATURAL SCIENCES

Post-Baccalaureate Premedical Studies

This program provides the opportunity for students who hold a bachelor's degree and who have not previously studied the sciences to prepare for entrance into a medical profession of their choice. Students may also retake science courses to demonstrate an improved mastery of those subjects. Courses offered in biology, chemistry, mathematics, and physics; see page 270.

ALPHA EPSILON DELTA: the international honor premedical society, see page 74.

BIOCHEMISTRY PROGRAM AND COURSES, see page 136.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1. *Atoms, Molecules and Genes* # 3 s.h.
Periodically

Historically important developments which have contributed to modern understanding of the hereditary apparatus and molecular mechanisms in living systems are examined. While the interrelationships between chemistry and biology which contributed to these developments are considered, the subject matter is principally chemical in nature. Emphasis on studying the processes by which scientific understanding evolves. Philosophical/ethical questions raised by current advances (as in genetic engineering) are discussed. (2 hours lecture, 2 hours recitation and laboratory.) Recommended for nonscience majors.

- 2A. *Introduction to Chemistry* 2 s.h.
See course description, page 310.

- 3A & 4A. *General and Inorganic Chemistry* # 3 s.h. each
Fall, Spring

Fundamental principles of chemistry including states of matter, modern atomic and bonding theory, mass and energy relationships in chemical reactions, equilibria, reaction rates and electrochemistry. Properties of the elements and their compounds are discussed in terms of structure. (3 hours lecture, 1 hour recitation.) Students registering for 3A or 4A should also register for the corresponding laboratory course 3B or 4B. 3A and/or 4A

apply towards the natural science core requirement only upon successful completion of the corresponding laboratory course(s) 3B and/or 4B. Engineering students are required to take only one semester of laboratory, preferably 3B. Prerequisite: completion of CHEM 2A or high school chemistry with a passing grade. Credit given for 3A or New College NCB 1, not both; 4A or New College NCB 2, not both.

- 3B & 4B. *General and Inorganic Chemistry Laboratory* # 1 s.h. each

Fall, Spring

Laboratory taken in conjunction with 3A & 4A lectures; includes quantitative measurements and some qualitative analysis. (3 hours laboratory.) CHEM 3B may be taken by students who have previously completed 3A, and CHEM 4B may be taken by students who have previously completed 4A. Credit given for 3B or New College NCB 1 or C2; 4B or New College NCB 2 or C2.

71. *Organic and Biological Chemistry* 4 s.h.
See course description, page 310.

80. *Descriptive Chemistry* 1 s.h.
Every other Fall

A systematic study of the elements of the Periodic Table and their compounds. Topics include structure, properties and reaction chemistry. Use of the chemical literature and information retrieval are emphasized in the completion of a seminar and term paper. Prerequisites: CHEM 3A, 4A.

105. *Quantitative Analysis* 3 s.h.
Fall

Fundamentals of gravimetric, volumetric and potentiometric methods; separative techniques; statistical analysis of experimental results. (3 hours lecture.) Prerequisites: CHEM 3A & 4A, 3B & 4B. May not be taken on a Pass/D+/D/Fail basis.

109. *Advanced Laboratory I, Quantitative Analysis* 1 s.h.
Spring

Laboratory work in gravimetric, volumetric, potentiometric and photometric methods; separative techniques. (4 hours laboratory.) Prerequisite or corequisite: CHEM 105.

111. *Computer Applications in Chemistry* 2 s.h.
Periodically

Introduction to numerical methods and their application to problems of chemical interest. Emphasis on chemical problem solving including applications in both theoretical and experimental branches of chemistry. A basic knowledge of a high level programming language and calculus is required. (2 hours lecture.) Prerequisites: CHEM 3A & 4A. No liberal arts credit.

124. *Instrumental Methods* 2 s.h.
Fall

Study of principles underlying instrumental methods. Evaluation of techniques used to apply these methods to the solution of chemical problems. Methods studied may include atomic and molecular absorption and emission spectroscopy, nuclear magnetic resonance, mass spectrometry, polarography, coulometry, chromatography, x-ray diffraction, fluorescence and fast reaction techniques; computer interfacing with instruments. (2 hours lecture.) Prerequisites: CHEM 105, 132A.

125. *Advanced Laboratory II, Instrumental Methods* 2 s.h.
Fall

Laboratory work in the application of instrumental methods which may include spectroscopy, fluorescence, voltammetry, chromatography, stopped flow kinetics and computer interfacing of instrumentation. (4 hours laboratory.) Prerequisite: CHEM 105. Prerequisite or corequisite: CHEM 124.

†See University Degree Requirements, page 71.

#Core course

- 131A & 132A. *Elements of Organic Chemistry* 3 s.h. each
131A: Fall, Spring; 132A: Fall, Spring
Basic principles of chemistry extended to organic compounds, aliphatic and aromatic, through nomenclature, methods of preparation, reactions and physical properties, and to theories of bonding, structure and mechanism of reaction. (3 hours lecture, 1 hour recitation.) Students registering for 131A or 132A should also register for the corresponding laboratory course 131B or 132B. Prerequisites: CHEM 3A & 4A, 3B & 4B.
- 131B & 132B. *Organic Chemistry Laboratory* 1 s.h. each
131B: Fall; 132B: Spring
Laboratory taken in conjunction with 131A & 132A lectures. (4 hours laboratory.) Synthesis, isolation, purification and spectroscopy of organic compounds, organic qualitative analysis. CHEM 131B may be taken by students who have previously completed 131A and CHEM 132B may be taken by students who have previously completed 132A. CHEM 131B must be completed before taking CHEM 132B.
- 134B. *Chemical Synthesis Laboratory* 1 s.h.
Periodically
Laboratory stressing advanced methods in synthesis, separation and identification of organic and inorganic compounds; instrumental methods include ultraviolet-visible and infrared spectroscopy; nuclear magnetic resonance and chromatographic methods. For chemistry majors only. (4 hours laboratory.) Prerequisites: CHEM 131A, 131B.
- 141-142. *Physical Chemistry* 3 s.h. each
141: Fall; 142: Spring
Thermodynamics, properties and kinetic theory of gases, elementary wave mechanics and the development of atomic structure and chemical bonding, homogeneous and heterogeneous chemical and physical equilibria, chemical kinetics; electrochemistry, elementary statistical thermodynamics. (3 hours lecture, 1 hour recitation.) Prerequisites: CHEM 3A & 4A, 3B & 4B; PHYS 11A & 12A and mathematics through the calculus.
- 147 & 148. *Advanced Laboratories III and IV: Experimental Physical Chemistry* 2 s.h. each
Spring
Laboratory work designed to introduce basic physicochemical methods used to solve chemical problems. Methods include those used to determine molecular structure and physical properties; calorimetry; study of chemical and physical equilibria; examination of rate processes; photochemistry. Emphasis on the source, magnitude and propagation of errors. (1 hour lecture, 3 hours laboratory.) Prerequisites: CHEM 105, 109, 141.
- 151 & 152. *Undergraduate Research* 1-3 s.h. each
Fall, Spring
Students undertake a problem including laboratory and library work (1 hour conference, 3 hours laboratory per credit) under the direction of a faculty member. The number of credits are decided on by the student and faculty member before registration. May be taken for more than two semesters. Prerequisite: permission of department chairperson.
162. *Molecular Biochemistry I* 3 s.h.
Fall
Same as BCHM 162 and BIO 162. Prerequisites: CHEM 131A & 132A, 131B & 132B.
163. *Molecular Biochemistry II* 3 s.h.
Every other Spring
Same as BCHM 163. Prerequisite: BCHM 162.
168. *Historical and Philosophical Foundations of Chemistry* 1 s.h.
Periodically
Selected topics. A study of some important conceptual and experimental discoveries that influenced the development of chemistry; an analysis of some factors inside and outside of the sciences that had an impact on these discoveries. (1 hour seminar.) Restricted to junior and senior chemistry, biochemistry and other majors in the natural sciences.
171. *Advanced Organic Chemistry* 3 s.h.
Every other Fall
Reaction mechanisms; implications of theory as applied to organic synthesis. Selected syntheses of important natural products. Use of physical methods in organic structure determinations. (3 hours lecture.) Prerequisites: CHEM 131A & 132A, 131B & 132B, 142.
173. *Experimental Biochemistry* 3 s.h.
Spring
Same as BCHM 173. Prerequisites: BCHM 162 and CHEM 105 and 109. No liberal arts credit.
175. *Medicinal Chemistry* 3 s.h.
Every other Fall
A variety of medicinal agents—natural and synthetic—are examined for structure-activity relationships. Emphasis on chemical synthesis, analytical and structure-proof methods in medicinal chemistry. Current approaches to new drug design are compared to classical molecular modification of drugs. (3 hours lecture.) Prerequisites: CHEM 131A & 132A, 131B & 132B.
176. *Seminar in Biochemistry* 1 s.h.
Every other Spring
Same as BCHM 176. Prerequisite: permission of instructor.
180. *Advanced Inorganic Chemistry* 3 s.h.
Every other Spring
Properties of the elements interpreted systematically in terms of modern bonding theory. Emphasis on coordination compounds, group theory and modern acid-base concepts. (3 hours lecture.) Prerequisite: CHEM 141.
- 182 & 183. *Biochemical Research* 1-3 s.h. each
Fall, Spring
Same as BCHM 182 & 183. Prerequisite: permission of faculty member and chairperson. No liberal arts credit.
185. *Environmental Chemistry* 3 s.h.
Every other Spring
Chemical composition and reactions of both naturally occurring substances and anthropogenic pollutants in the atmosphere, hydrosphere, lithosphere and important cycles of the biosphere. Sources of pollutants, their effect on living organisms with reference to human health, possible ways for their control and chemical analyses. Pollution aspects of waste disposal and those of energy production are considered. (3 hours lecture.) Prerequisites: CHEM 3A & 4A, 3B & 4B; or 3A, 3B, 4A.
191. *Theories of Electrons in Atoms and Molecules* 3 s.h.
Periodically
Elementary wave mechanics and approximate methods for its applications to atoms and molecules; molecular orbital theory, applications of group theory to molecules, theory of magnetic resonance and electronic spectroscopy. (3 hours lecture.) Prerequisite: CHEM 141.
192. *Special Studies in Chemistry* 1 s.h.
Periodically
Various advanced topics not covered in other chemistry courses, such as surface analysis, molecular spectroscopy and N.M.R. spectroscopy are presented. May be repeated for credit when topics vary. Prerequisite: permission of instructor. No liberal arts credit.

Chinese (CHIN)

Administered by the Department of Comparative Literature and Languages. Professor Donahue, *Chairperson*

Assistant Professor Zhou, *Adviser*

For Chinese Literature and Translation courses, see page 229.

COURSES

These courses are sometimes offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1. *Elementary Chinese* 3 s.h.
Fall
Fundamentals of structure (Mandarin). Oral and written drill.
2. *Elementary Chinese* 3 s.h.
Spring
Continuation of 1. Readings of simplified Pai-Hua texts. Prerequisite: CHIN 1 or equivalent.
- 2A. *Intensive Elementary Chinese* 6 s.h.
Periodically
For the student with a special interest in a more intensive exposure to the materials of study of Mandarin Chinese. Oral and written drill. Readings of simplified Pai-Hua texts. Culture and civilization. Same as 1, 2.
3. *Intermediate Chinese* 3 s.h.
Fall
Grammar review. Reading and translation of material of average difficulty. Prerequisite: CHIN 2 or equivalent.
4. *Intermediate Chinese* 3 s.h.
Spring
Readings in contemporary Chinese literature. Survey of Chinese culture. Introduction to Wen-Yen literary style. Prerequisite: CHIN 3 or equivalent.
- 4A. *Intensive Intermediate Chinese* 6 s.h.
Periodically
Intensive exposure to materials of second year of study. Prerequisite: CHIN 2 or 2A. Credit not given for both this course and 3 and/or 4.
5. *Advanced Reading* 3 s.h.
Once a year
Development of the reading skill. This course includes selections from conversational Chinese, newspaper Chinese and readings on the cultural background of China. Prerequisite: CHIN 4 or equivalent.
110. *Chinese Conversation and Oral Practice* 3 s.h.
Once a year
Analysis of pronunciation. The purpose is to achieve fluency in Chinese. Prerequisite: CHIN 4 or equivalent.
- 111, 112. *Chinese Readings* 1 s.h. each
Periodically
Readings in Chinese masterpieces to keep alive the student's interest in the language and literature. Prerequisite: CHIN 4 or equivalent.

Classics

SEE COMPARATIVE LITERATURE AND LANGUAGES

Communication, School of

SEE PAGE 104.

Community Health

SEE HEALTH PROFESSIONS AND FAMILY STUDIES

Comparative Literature and Languages (CLL)

The following areas are administered by this department, and listed independently: Arabic, Chinese, English Language Program, German, Greek, Hebrew, Japanese, Jewish Studies, Latin, Linguistics, Literature in Translation, Modern Greek and Russian. Swahili. Each language or area is listed alphabetically.

Professor Donahue, *Chairperson*

Professors D'Acerno, Leonard; Associate Professors Lekatsas, Mihailovic; Assistant Professors Berlinerblau, Hartman, Welch, Zhou.

B.A. SPECIALIZATION IN COMPARATIVE LITERATURE: This 42 semester hour specialization is designed to enable the student to acquire a broad background not only in the literary history of different cultures and countries, but also in their relation to one another, and their relative degrees of influence on cross-cultural movements, themes and genres in literature and the arts. A specialization in comparative literature reflects the intellectual breadth, flexibility and openness to cultural difference that the world increasingly demands. A degree in comparative literature prepares students for graduate study in the same field (or in any of the related areas of specialization), as well as provide a solid general basis for study in professional schools, such as law, education, public administration, or business.

The comparative literature major is structured differently than other majors in order to reflect the inclusive nature of the field. Required:

1. Complete 3 courses in a first foreign language such as German, Russian, etc., beyond level 4; *and* complete 2 courses in a second foreign language beyond level 2. Total: 15 semester hours.
2. Complete 5 courses in comparative literature or literature in translation (including French literature in translation, Italian literature in translation, and Spanish literature in translation), either in the core curriculum or other. One of these courses must be in a non-Western literature, or in the cross-cultural category of the core curriculum; also, one of these courses is to be an independent study on a special topic in comparative literature, or an Honor's Essay, if eligible, to be done usually in the student's last year or semester by arrangement with a professor in the department. Total: 15 semester hours.
3. Complete 2 additional courses in one literature *and* complete 2 courses in any *one* of the following disciplines: anthropology, art history, drama, history, music, philosophy, or sociology, or another discipline by arrangement. Total: 12 semester hours.

NOTE: This concentration outside the department is peculiar to the breadth of comparative literature as a discipline, and these courses can also fulfill other college and university requirements.

B.A. SPECIALIZATION IN THE CLASSICS, GERMAN, HEBREW OR RUSSIAN: 24 semester hours in one language beyond language 4, plus 6 semester hours of comparative literature. The adviser may direct additional courses to provide an integrated program.

Credit in a language course cannot be given to a student who has already earned credit for a higher-numbered course in the same language when the course numbers in question indicate level of comprehension and ability in the introductory and intermediate study of that language.

NOTE: language laboratory work is required in all modern foreign language courses on the 1, 2, 3, 4, level.

See complete B.A. requirements, page 79.

TEACHING A FOREIGN LANGUAGE IN HIGH SCHOOL, see page 287.

A **MINOR IN COMPARATIVE LITERATURE** consists of the successful completion of 18 semester hours as described below, with at least 6 hours in residence.

1. 9 semester hours in the area of foreign language, with two courses in a first foreign language beyond level 4, and one course in a second foreign language beyond level 2.
2. 6 semester hours in comparative literature or literature in translation (including French literature in translation, Italian literature in translation, and Spanish literature in translation), with one course in the department not included in the core curriculum, and one course in a non-Western literature, in the core curriculum or other.
3. 3 semester hours as a concentration in a literature either different than the first foreign language or beyond the requirements of the first foreign language.

Totals for both the specialization and the minor can include credits that fulfill other college and university requirements.

A **MINOR IN ARABIC, GERMAN, GREEK, HEBREW, LATIN OR RUSSIAN** (for Classics and Linguistics, see below) consists of the successful completion of 18 semester hours in the language beyond level 2, under advisement, and at least 6 hours in residence.

A **MINOR IN CLASSICS** consists of the successful completion of 18 semester hours as follows: CLL 39, 40; HIST 105, 106; 6 semester hours of 100-level courses in Latin and/or Greek.

A **MINOR IN LINGUISTICS** is an interdisciplinary program consisting of the successful completion of 18 semester hours as described below, with at least 6 hours in residence.

Required

SPCH 5. *Phonetics*

LING 151. *Phonology*

152. *Syntax*

Electives

LING 125. *Natural Language vs Programming Languages*

161. *Historical Linguistics*

162. *Applied Linguistics*

171. *Sociolinguistics*

181. *Special Studies*

190. *Formal Grammars*

Recommended electives from other departments

ENGL 103. *Structures of English*

SPCH 101. *Experimental Psycholinguistics*

102. *Language in Child Development*

Other courses may be chosen, under advisement.

MASTER OF ARTS IN APPLIED LINGUISTICS (TESL), see Graduate Bulletin.

MASTER OF ARTS IN COMPARATIVE LITERATURE*

NONLISTED LANGUAGES

1, 2, 3, 4, 110, 113. *Language* 3 s.h. each

When there is student interest or national demand, any language not appearing in the regular listings may be given for a 3-year sequence.

COMPARATIVE LITERATURE (CLL)

NOTE: comparative literature courses on the 100-level are open to juniors and seniors. All are given in English.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

39. *Mythologies and Literature of the Ancient World* # 3 s.h.
Fall

Near Eastern mythology, the Bible and Greek literature focusing on our earliest attempts to order reality and formulate our individual identity.

40. *Literature of the Emerging Europe* # 3 s.h.
Spring

Roman and Christian writers and the medieval literature of England, Germany, Italy, France and Spain as the sources of western consciousness emerging from Judaic, classical and Christian views of reality.

53. *Faust Theme* # 3 s.h.
Once a year

Comparative treatment of the Faust theme in different centuries (the Renaissance to the twentieth century) and various countries (France, Germany, Spain, England, Russia and the United States).

54. *The Oedipus Theme* # 3 s.h.
See course description, page 310.

75. *Women Writers in the Romantic Tradition* # 3 s.h.
See course description, page 310.

131. *Comparative Mythology* 3 s.h.
Periodically

European, Asian, American and African mythology exemplified in various religious and heroic legends.

149, 150. *Asian Literature* 3 s.h. each
Every other year

Major literary works are examined as a reflection of Asian cultures and as an influence on western culture. First semester, India; second semester, China and Japan.

151, 152. *Studies in Literature* 3 s.h. each
Fall, Spring

Designed to treat special subjects or authors at the discretion of the department, but with the student's interest in view. Such subjects as existentialism, death and the literary imagination, or subjects of a like nature are presented. May be repeated when topics vary.

155. *Medieval Literature* 3 s.h.
Once a year

Medieval literature of England, Germany, France and Spain, with emphasis on the epic, lyric, romance and drama.

161. *Renaissance* 3 s.h.
Once a year

Origins and evolution in Italy. Further developments in France, Spain and England.

172. *European Literature of the 17th and 18th Centuries* 3 s.h.

Periodically

A comparative study of the main aspects of classicism and rationalism in Europe during the 17th and 18th centuries.

173. *Sentiment to Sadism in the Early European Novel* 3 s.h.
See course description, page 310.

190. *World Literature and the Anatomy of Cultural Difference* # 3 s.h.

See course description, page 310.

191. *Romanticism* 3 or 4 s.h.
Once a year

Literature and culture of Europe and America in the late 18th and early 19th centuries.

*Applications not accepted in 2003-2004.

Interested students should consult the M.A. in Humanities. See Graduate Bulletin.

#Core course

193. *The Color of Literature* 3 s.h.
Periodically

This course explores works by 'writers of color' and investigates the notion of assigning racial, ethnic, and cultural identity labels to works of literature. Does literature have a color? Can it? How is this relevant to literary study? In a cross-cultural context, we will examine how works of literature reflect the history and discussion of race, ethnicity, and culture in a given society. These works also participate in and give form to issues and debates that extend beyond the work back into society at large. (Formerly *Black Literature Across Cultures*.)

195. *Realism, Naturalism, Symbolism* 3 s.h.
Once a year

Western European literature in the second part of the 19th century.

196. *Senior Essay* 3 s.h.
Periodically

Research and writing of a substantial essay in the field of comparative literature. Open only to senior majors who have secured, before registration, the written permission of the faculty adviser who will supervise the essay. May not be taken on a Pass/D+/D/Fail basis. Note: CLL 196, 197, 198 satisfy the same major requirement.

197. *Honors Essay* 3 s.h.
Periodically

Research and writing of a substantial essay in the field of comparative literature. Open only to senior majors who are eligible for departmental honors and who have secured, before registration, the written permission of the faculty adviser who will supervise the essay. May not be taken on a Pass/D+/D/Fail basis. Note: CLL 196, 197, 198 satisfy the same major requirement.

198. *Advanced Seminar* 3 s.h.
See course description, page 310.

199. *Contemporary European Literature* 3 or 4 s.h.
Once a year

Modern man as he appears in representative works of contemporary European literature.

Computer Science (CSC)

Professor Burghardt, *Chairperson*

Professor Impagliazzo; Associate Professors Barr, Pillaipakkam-natt; Assistant Professors Divakaran, Doboli, Kamberova, Liang, Ostheimer.

Hofstra offers B.A. and B.S. degrees in Computer Science and a B.S. degree in Computer Engineering. The B.A. combines a major in computer science with a broad program in the liberal arts. The B.S. in Computer Science prepares the student for a professional career in computer science requiring a stronger foundation in mathematics and science, while still allowing the student the opportunity to explore the liberal arts. The B.S. in Computer Engineering, jointly administered program with the Engineering Department, aims at providing students with a solid education in the engineering of computer and digital systems with a strong liberal arts component.

B.A. SPECIALIZATION IN COMPUTER SCIENCE: 37 semester hours in computer science: CSC 14, 15, 16, 24, 110, 110A, 112, 120, 155 and 12 semester hours in computer science electives numbered higher than 100. Science requirements: 12 semester hours in natural sciences to include *either* PHYS 11A & 12A (with 11B, 12B laboratories) *or* PHYS 1A & 2A (with 1B & 2B laboratories) *or* CHEM 3A-4A (with 3B-4B laboratories) *or* BIO 1 & 2. Additional

requirements: MATH 19, 20. A grade of C- or better in all courses required for the major.

An overall average of C or better is required in CSC 14, 15, 16, and 24 for continuation in the major. In addition, a student may not take any of these four courses more than twice.

See complete B.A. requirements, page 79.

B.S. SPECIALIZATION IN COMPUTER SCIENCE: candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra.
2. At least 55 semester hours must be completed in the liberal arts excluding courses in computer science.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. ENGL 1-2 or placement examination*, (see University Degree Requirements, page 71).
5. 6 s.h. Humanities core (3 hours in appreciation and analysis (literature), 3 hours in creative participation).
6. 6 s.h. Social Sciences core (3 hours in history and philosophy; 3 hours in behavioral social sciences).
7. 3 s.h. Cross-Cultural core.
8. 9 s.h. Humanities and/or Social Science (not limited to core).
9. Minimum general requirements for the major: CSC 14, 15, 16, 24, 110, 110A, 112, 120, 123, 155, 161, 163, 185, 190 and 12 semester hours in computer science electives numbered higher than 100. CSC 5 may be included as an elective in computer science if taken prior to CSC 15. MATH 19, 20 and at least one course in MATH beyond MATH 20; and 3 courses in natural sciences to include *either* PHYS 11A & 12A (with 11B, 12B laboratories) *or* CHEM 3A-4A (with 3B-4B laboratories). All science courses must be courses for science majors.
10. A grade of C- or better in all courses required for the major.
11. An overall average of C or better is required in CSC 14, 15, 16, and 24 for continuation in the major. In addition, a student may not take any of these four courses more than twice.

B.S. SPECIALIZATION IN COMPUTER ENGINEERING

Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Program Educational Objectives

The Department of Computer Science and the Department of Engineering jointly sponsor this program. Students desiring intensive study at the undergraduate level to develop proficiency in the fields of computer engineering, such as hardware, software, and systems that arise in the design, analysis, development, and application of computers and digital systems, will find this program to be a challenging and rewarding experience. The curriculum provides a broad foundation in the science and engineering of computers and digital systems with emphasis on theory, analysis, design, natural science, and discrete and continuous mathematics in a liberal arts setting. The broad range of Hofstra University resources in the humanities and social sciences make the liberal arts component especially enlightening.

Students will develop analytical, computer and applied skills which will enable them to analyze, design and test digital and

*If this requirement is fulfilled by passing the placement examination, 3 hours in literature or literature in translation should be taken with adviser's approval.

computer systems, architectures, networks, and processes. Graduates will understand the various areas of computer engineering such as applied electronics, digital devices and systems, electromagnetic fields and waves, and computer architectures, systems, and networks. Graduates will also have an understanding of hardware issues, software issues and models, the interactions between these issues, and related applications. This thorough preparation in theoretical tools and laboratory experimentation will give graduates the skill and flexibility required to meet the ever changing demands on the computer engineer. The program is responsive to suggestions posed by industry leaders from the Long Island community.

Students will develop design skills progressively, beginning with their first courses in programming, circuit analysis, digital circuits, computer architectures, and networks and they will apply their accumulating knowledge to practical problems throughout the curriculum. This process culminates in the capstone design course, which complements the analytical part of the curriculum.

The thorough preparation afforded by the computer engineering curriculum includes the broad education necessary to understand the impact of engineering solutions in a global and societal context. Hence, graduates will be well prepared for professional employment or advanced studies. The following generic indicators of achievement apply specifically to computer engineering graduates and provide methods to measure of the program's effectiveness in meeting its stated objectives

1. Ability to apply knowledge of mathematics, science, computer science, and electrical engineering;
2. Ability to design and conduct experiments, and to analyze and interpret data;
3. Ability to design a system, component, or process to meet desired needs;
4. Ability to function on multi-disciplinary teams;
5. Ability to identify, formulate, and solve computer engineering problems;
6. Understanding of professional and ethical responsibility;
7. Ability to communicate effectively;
8. Broad education necessary to understand the impact of engineering solutions in a global and societal context;
9. Recognition of the need and ability to engage in life-long learning;
10. Knowledge of contemporary issues;
11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Candidates for graduation with the B.S degree in this area must fulfill the following requirements:

1. The successful completion of at least 132 semester hours and a cumulative grade point average of 2.0 for all courses required for the major as well as an overall 2.0 GPA. Military Science may not be counted toward this total semester hour requirement.
2. At least 57 credits must be completed in the liberal arts excluding courses in computer science and engineering. ENGG 149 may be used for liberal arts credit.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. The general and major requirements are listed under the program below. Courses in computer science and engineering may not be taken on a Pass/D+/D/Fail basis.
5. A cumulative average of C or better is required in the following courses: CSC 110 or ENGG 32A, CSC 112, CSC 120, CSC 153 or ENGG 153, CSC 175, ENGG 30, ENGG 36, and ENGG 177. A cumulative average of C or better is required in all computer science and engineering courses.

FULL-TIME STUDENTS—132 s.h.
SUGGESTED FOUR-YEAR SEQUENCE

FIRST YEAR			
	<i>1st</i>	<i>2nd.</i>	
	<i>Sem.</i>	<i>Sem.</i>	
MATH 19, 20	4	4	
CSC 14, 15, 16	6	3	
ENGG 9A	2	-	
PHYS 11A, 11B	-	5	
ENGL 1-2 or placement examination*	3	3	
Social science or humanities elective**	-	3	
	<u>15</u>	<u>18</u>	
SECOND YEAR			
MATH 29	4	-	
CSC 120	3	-	
ENGG 30, 34	3	1	
CSC 110/ENGG 32A, CSC 102/ENGG 101	-	6	
CHEM 3A, 3B	-	4	
PHYS 12A, 12B	5	-	
Literature or literature in translation**	3	-	
Social science or humanities elective**	-	6	
	<u>18</u>	<u>17</u>	
THIRD YEAR			
MATH 143	3	-	
CSC 112, 163, 175	3	4	
ENGG 33, 36, 104, 176, 177	9	6	
CSC 110A/ENGG 32B, CSC 185/ENGG 185/ ENGG 189***	1	3	
Technical elective****	-	3	
	<u>16</u>	<u>16</u>	
FOURTH YEAR			
CSC 132	3	-	
ENGG 143B, 149, 192	4	3	
CSC 153/ENGG 153, CSC 154/ENGG 154	3	1	
CSC 187/ENGG 188*****	3	-	
Literature or literature in translation**	-	3	
Social science or humanities electives**	-	3	
Technical electives*****	3	6	
	<u>16</u>	<u>16</u>	

B.S. SPECIALIZATION IN COMPUTER SCIENCE AND MATHEMATICS, see page 237.

A MINOR IN COMPUTER SCIENCE consists of the successful completion of CSC 14, 15, 16 and an additional 9 semester hours in

*If this requirement is fulfilled by passing the placement examination, 6 semester hours in the humanities or social sciences should be taken with adviser's approval.

**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.

***ENGG 189 may substitute for CSC 185/ENGG 185 with adviser's approval, but students can no longer use ENGG 189 as a technical elective. Note: ENGG 189 is a prerequisite for ENGG 171.

****With adviser's approval.

*****ENGG 188 may substitute for CSC 187 with adviser's approval, but students can no longer use ENGG 188 as a technical elective.

computer science courses which may include CSC 5 with at least 6 hours in residence, with grades of C– or better.

A MINOR IN GENERAL BUSINESS (for nonbusiness majors only) broadens the background of computer science majors who are interested in entering the profit or not-for-profit job market. For further information, please contact the department chairperson.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

5. *Overview of Computer Science* # 3 s.h.
Fall, Spring

Introduction to fundamental concepts in computer hardware and software. Exploration of the history and evolution of computing, and foundational areas of current computer science research. Algorithms, program development, and problem solving. Elements and use of a high-level programming language. Credit given for this course or New College ISGG 1, not both. May not be taken after CSC 15.

12. *C for Programmers* 1 s.h.
Periodically

The essential features of C are examined for those already having knowledge of a high-level language. Prerequisites: knowledge of programming and permission of instructor. (Formerly *FORTRAN 77 for PL/1 Users*.)

14. *Discrete Structures* 3 s.h.
Fall, Spring

Review of propositional and predicate logic. Methods of theorem proving; strong and weak induction. Finite and infinite sets, set operations. Introductions to computational complexity, theta and big-O notation. Combinatorics, including permutations and combinations. Discrete probability and binomial distribution. (3 hours lecture, 1 hour laboratory.) Prerequisite: MATH 11 or equivalent. (Formerly *Discrete Mathematics*.)

15. *Fundamentals of Computer Science I* # 3 s.h.
Fall, Spring

Introduction to computer science with emphasis on problem solving, programming and algorithm design. Uses a high-level programming language for solving problems and emphasizing program design and development. Topics include basic programming constructs, expressions, conditional statements, loop statements, functions, classes and objects, data types, arrays and strings. (3 hours lecture, 1 hour laboratory.) Prerequisite: MATH 11 or equivalent.

16. *Fundamentals of Computer Science II* # 3 s.h.
Fall, Spring

Investigate the essential properties of data structures, abstract data types, and algorithms for operating on them; to use these structures as tools to assist algorithm design; introduce searching and sorting techniques. (3 hours lecture, 1 hour laboratory.) Prerequisites: CSC 14, 15 or equivalent.

24. *Discrete Mathematics II* 3 s.h.
Fall, Spring

Functions, including surjections, injections, bijections. Continued study of computational complexity, theta and big-O notation. Recursive definitions and algorithms, recurrence relations and their solution, divide and conquer algorithms. Graphs: terminology, representations of graphs (including applications of matrix multiplication), complexity of graph problems. Prerequisite: CSC 14.

50. *Fundamentals of Object-Oriented Programming* 3 s.h.
See course description, page 310.

52. *Fundamentals of Systems Analysis* 3 s.h.
See course description, page 310.

54. *Fundamentals of Data Communications* 3 s.h.
See course description, page 310.

56. *Fundamentals of Database Management Systems* 3 s.h.
See course description, page 310.

58. *Fundamentals of JavaScript Programming* 3 s.h.
See course description, page 310.

60. *Fundamentals of Networking* 3 s.h.
See course description, page 311.

62. *Ecommerce* 3 s.h.
See course description, page 311.

102. *Numerical Methods* 3 s.h.
Fall, Spring
Same as ENGG 101 and MATH 147. Prerequisite: MATH 20, CSC 15 or ENGG 10.

110. *Introduction to Computer Architecture* 3 s.h.
Fall

Internal structure of computers. Logic design: Boolean algebra, gates and flip-flops, synthesis of combinatorial networks, registers, serial and parallel organization, control mechanisms. Number systems and arithmetic, two's-complement arithmetic. Operating cycle, data and control flow in a typical computer. Interrupts, i/o devices, programmed i/o and DMA. Prerequisites: CSC 14, 16.

110A. *Computer Architecture Laboratory* 1 s.h.
Fall, Spring

Provides hands-on experience in using digital electronics by way of integrated circuits without engineering bias. Offers practical construction, testing and implementation of circuits useful in digital circuits and modules. Prerequisite: CSC 110. Same as ENGG 32B.

111. *Assembly-Language Programming* 3 s.h.
Spring

Organization of a computer: memory, addressing; number systems and conversion. Assemblers, base registers, relocation. Fixed-point numeric processing, string processing, indexing and iteration. Floating-point arithmetic and Boolean operations. Subroutines, macros, i/o channel programming. Prerequisites: CSC 14, 16.

112. *Computer Operating Systems* 3 s.h.
Spring

A study of the internal design of operating systems. Topics include memory management, multiprogramming, virtual memory, paging and segmentation. Job and process scheduling; multiprocessor systems; device and file management; thrashing, cache memory. Prerequisites: CSC 110, 120.

120. *Algorithms and Data Structures* 3 s.h.
Fall

The study of representations for lists, stacks, queues, trees, and graphs. Fundamental algorithms (and their implementation) for sorting, searching, merging, hashing, graph theoretic models and recursive procedures. Prerequisites: CSC 14, 16.

123. *Programming Languages: Survey, Design and Implementation* 3 s.h.
Fall

A study of the fundamental principles that distinguish the major families of modern programming languages. Syntax and the BNF, memory allocation and semantics of static, stack-based and dynamic languages, abstract data types, advanced control struc-

tures. Programming in functional, logic, imperative, and object-oriented programming languages. Prerequisites: CSC 16, 24.

124. *Compiler Construction* 3 s.h.
Spring

Design and implementation for imperative and object-oriented programming languages. Lexical scanning, parsing techniques, semantic analysis and intermediate code generation, optimization techniques, target code generation. Management of symbol table; error handling. Programming required. Prerequisites: CSC 123, 161, 120.

132. *Computational Modeling* 3 s.h.
Spring

Fundamental principles of modeling and simulation. Methodology including model formation, design of simulation experiments, analysis of generated data and validation of results. Survey of applications. Project chosen from area of student's interest. Prerequisites: CSC 15, 24.

143, 144. *Projects in Computer Science* 3 s.h. each
Fall, Spring

Individual or group projects on selected topics such as the design of computer software or applications programs. Prerequisites: senior standing and permission of project adviser.

145. *Special Studies* 3 s.h.
Periodically

Topics are chosen from areas of current interest that are not covered in existing course offerings. Subjects are announced annually. Prerequisites: junior standing and requirements for current topic. May be repeated for credit when topics vary.

153. *Advanced Computer Architecture* 3 s.h.
See course description, page 311.

154. *Advanced Computer Architecture Laboratory* 1 s.h.
See course description, page 311.

155. *UNIX and C++* 3 s.h.
See course description, page 311.

158. *Introduction to Artificial Intelligence* 3 s.h.
Spring

Survey of concepts and problems of computers performing tasks which traditionally require human intelligence. Topics include heuristic search and robotics, pattern recognition, game playing, theorem proving, question-answer systems and natural language processing. Prerequisite: CSC 120.

161. *Introduction to Automata Theory* 3 s.h.
Periodically

Introduction to automata and the languages they accept, focusing on finite and pushdown automata. Introduction to Turing machines and the Halting Problem. Prerequisite: CSC 24.

163. *Computing, Ethics, and Society* 1 s.h.
See course description, page 311.

170. *Principles of Database Management* 3 s.h.
Fall

Introduction to data modelling, databases, data management systems and query languages. Hierarchical, network and relational models. The ANSI/SPARC architecture and conceptual schemas. Entity-attribute construction. Existing systems: IMS, IDMS, DB2, FOCUS, ORACLE, Ingres, SQL; relational algebra and normalization; database design. Prerequisite: CSC 120.

171A. *Introduction to Computer Graphics* 3 s.h.
Fall

Fundamentals of two-dimensional modern interactive graphics: hardware technologies, software, data structures, mathematical manipulation of graphical objects, the user interface and the

fundamental implementation of algorithms. Prerequisites: CSC 16, 24, 155, MATH 19. MATH 135A recommended. (Formerly 171.)

175. *Principles of Data Communication* 3 s.h.
Once a year

A technical introduction to data communication. Topics include the OSI Reference Model, layer services, protocols, LANs, packet switching and X.25, ISDN, File transfer, virtual terminals, system management and distributed processing. Prerequisites: CSC 16, MATH 19 and junior standing.

185. *Methods of Random Process* 3 s.h.
Fall

Same as ENGG 185. Prerequisites: MATH 20, CSC 16, 24.

186. *Design and Analysis of Experiments* 3 s.h.
Spring

Same as ENGG 186. Prerequisites: ENGG or CSC 185.

187. *Linear Programming* 3 s.h.
Fall

Elements of matrix algebra, vector spaces and convex sets pertinent to the theory and application of linear programming (LP) models. Development of the simplex method and duality theory. The nature of solutions to systems of linear equations are related to LP complications and their resolution. Applications are extended to include the generalized LP problem, transportation, assignment and network problems. Prerequisites: MATH 20, CSC 16, 24.

190. *Software Engineering: Theory and Practice* 3 s.h.
Spring

Students study the nature of the program development task when many people, modules and versions are involved in designing, developing and maintaining a large program or system. Issues addressed include program design, specification, version control, cost estimation and management. Students work in small teams on the cooperative examination and modification of existing systems. Prerequisites: CSC 155, junior standing. (Formerly *Project in Software Engineering*.)

195. *Computer Science Internship I* 3 s.h.
Fall, Spring

Internship course for qualified senior computer science majors. Students work approximately one day per week with a participating industry or research concern and are jointly supervised by department and employer. Admission by permission of department chairperson and is dependent on student's record and availability of placement.

196. *Computer Science Internship II* 3 s.h.
Fall, Spring

Continuation of 195. This course may not be used to satisfy any of the 15 credits of required computer science electives. Prerequisite: CSC 195.

NOTE: Graduate courses taken toward the major may not be taken on a Pass/Fail basis. dian algorithm. Fast matrix multiplication.

Counseling, Research, Special Education, and Rehabilitation (CRSR)

Due to changes in the New York State teacher certification regulations, students completing (finishing) degree programs after December 2003 and who are seeking Hofstra's recommendation for teacher certification, may have to complete additional requirements for their program of study.

Consult your faculty adviser for information pertaining to your particular program.

The following areas and courses are listed alphabetically: Counseling, Creative Arts Therapy, Gerontology, Rehabilitation Counseling, Research, and Special Education.

Associate Professor Sciarra, *Chairperson*

Professors Bowe, Gellman; Associate Professors Bloomgarden, Johnson, Lechowicz, Schwartz; Assistant Professors Chang, Gonzalez-Dolginko, McLean, Pace, Wilson.

EDUCATIONAL PSYCHOLOGY

Educational psychology elective and required studies in teacher preparation programs are given at the undergraduate and graduate levels. For information about these offerings, see the course descriptions below as well as program descriptions in other educational specializations, e.g., elementary education and secondary education. These courses are also appropriate for persons teaching or training in business, industry, library systems, etc.

EDUCATION HONOR SOCIETIES, see page 74.

COURSES

In addition to semester notations next to each course, several courses are offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

113. *Educational Psychology* 3 s.h.
Fall, Spring, Summer

Study of the cognitive and affective dimensions of adolescent behavior. Emphasis is on the theoretical conceptions of learning and personality, which underlie educational methods. Prerequisite: PSY 1 or 7.

115. *The Helping Relationship* 3 s.h.
Periodically

Supervised fieldwork experience integrating psychological and educational theory with field-based learning. Relevant to careers such as teaching, counseling, social work, medicine and law. Prerequisite: introductory course in psychology or educational psychology.

116. *Health Counseling Issues* 3 s.h.
Spring

Designed to familiarize prospective educators and community health professionals with the myriad of health problems they may encounter in their respective settings. Emphasis on encouraging awareness of individual and group approaches to helping individuals with a variety of health concerns. Also focuses on developing a range of communication and helping skills. (Formerly *Health and Counseling for the Teacher*.)

117. *Peer Counseling With College Students* 2 s.h.
Fall, Spring

Provides an opportunity for students to acquire the theory and techniques of a variety of skills essential for effective human relations and in working with college students in a variety of settings.

180 through 189, A-Z. *Workshops* 1-4 s.h. each
Periodically

Designed to meet the needs of specific groups of students interested in special topics not covered by other course offerings.

As individual subjects are selected, each is assigned a letter (A-Z) and added to the course number. Any course may be taken a number of times so long as there is a different letter designation each time it is taken.

Creative Arts Therapy (CAT)

Administered by the Department of Counseling, Research, Special Education, and Rehabilitation. Associate Professor Sciarra, *Chairperson*

COURSES

In addition to semester notations next to each course, a selection of courses is offered during the January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

101. *Introduction to Art Therapy* 3 s.h.
Fall, Spring

Acquaints students with the fundamentals of art therapy as currently practiced. Emphasis on experiential activities. Brief introduction to the other creative arts therapies. Prerequisite: PSY 1 or permission of instructor.

Creative Writing

SEE ENGLISH page 181

Curriculum and Teaching (CT)

Due to changes in the New York State teacher certification regulations, students completing (finishing) degree programs after December 2003 and who are seeking Hofstra's recommendation for teacher certification, may have to complete additional requirements for their program of study.

Consult your faculty adviser for information pertaining to your particular program.

Professor Fromberg, *Chairperson*

Areas of specialization are Early Childhood; Elementary; and Secondary Education; and Pre-K to 12 programs in Business Education, Fine Arts Education, Music Education, and Speech Communication Education.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

102. *Development and Learning in Childhood and Adolescence* 3 s.h.
Fall, Spring

Theory and research on physical, cognitive, affective, and social development in childhood and adolescence, with implications for learning, teaching and health in elementary, middle, and secondary schools. Issues pertaining to literacy, technology, and multicultural education are considered. May not be taken on a Pass/D+/D/Fail basis. Required 20 hours of classroom participation-observation in high needs schools.

165. *Methods and Materials in Teaching the Bilingual Learner* 3 s.h.

Once a year
Designed to prepare students to teach K-12 children in a mixed cultural group. Motivation and degree of acculturation are analyzed. Suitable materials and teaching strategies are included. Field placements in bilingual settings appropriate to major levels of interest are required. Students must be registered in an elementary or secondary provisional certification sequence.

179. *Student Teaching (Undergraduate)* 6 s.h.
Fall, Spring

Full time student teaching in cooperating schools with direction and supervision from University sponsors. Students have two

placements during the semester: one at the elementary school level (preK-6) and the other at the high school level (7-12). Attendance at weekly seminars is required. Student teachers review content area planning including assessment, inclusion, diversity, literacy, resources, and technology and relate pedagogy to content. Special required seminars address issues of child abuse and abduction, substance abuse, and safety, fire and arson prevention. Admission by application and interview only. Application may be obtained at the Office of Field Placement and returned by October 1 for spring semester and by March 1 for the fall semester. Prerequisites: 19 semester hours of professional education course work, the appropriate methods courses, appropriate grade point averages, and official acceptance into Student Teaching. For admission criteria, see Secondary Education, Undergraduate Programs on page 283. Corequisite: SED 178. Pass/D+/D/Fail grade only.

Dance (DNCE)

Administered by the Department of Drama and Dance. Professor Kolb, *Chairperson*

Associate Professors Brandenberger, Westergard; Assistant Professor Becker; Mr. Galian, Accompanist.

B.A. SPECIALIZATION IN DANCE: a performing art program with emphasis on the study of technique, composition, performance and production. The course of study is designed to complement the existing academic programs and to provide students with the opportunity for a concentrated experience in dance as an art form.

A personal interview with a member of the dance faculty is required prior to registration as a major.

DEGREE REQUIREMENTS

A minimum of 128-131 s.h. depending on the number of DNCE s.h. taken in category 3 below, including:

- 1) 49 s.h. in DNCE as follows: DNCE 11M, 12M, 13, 14, 15M, 16M, 17, 18, 25, 111M, 112M, 113, 114, 115M, 116M, 121, 127, 128, 130 or 132, 133.
- 2) 8 s.h. as follows: DRAM 55 (2 semesters required, one to be taken concurrently with DNCE 25), PESP 107 and PHI 160.
- 3) 2 or 3 s.h. chosen from the following: DNCE 48, 49, 50 (*Jazz Dance I, II and III*), 122, 123, 130, 132, DRAM 157, PESP 103.

Students must participate in the MOVOM (Modern Dance Club) each semester.

Assignment of students to the appropriate ballet and modern dance courses and labs will be based on prior experience, study and advancement.

See complete B.A. requirements, page 79.

A MINOR IN DANCE consists of the successful completion of 18 semester hours of courses with at least 6 hours in residence in one program. Minors are required to take DNCE 121, 127, and 128. The remaining 9 semester hours may be chosen from the dance curriculum with the permission of the instructors. DRAM 157 and one semester of DRAM 55 may also be elected as partial fulfillment of the minor requirement.

COURSES

11M. <i>Modern Dance I</i> #	2½ s.h.
Fall	
12M. <i>Modern Dance II</i> #	2½ s.h.
Spring	
13. <i>Modern Dance III</i> #	2 s.h.
Fall	
14. <i>Modern Dance IV</i> #	2 s.h.
Spring	
Technique classes in contemporary dance forms designed for the dance major—to continue over a four-year range of study.	

Emphasis on technical development, theories and discussion related to expressive potentialities and the mastery of stylistic variation in contemporary forms of movement. Assignment of students to one of the sections is based on prior experience, study and advancement. DNCE 13 and 14 each include a required 90-minute laboratory component. Open only to dance majors or by permission of instructor.

11M.

12M.

11A. <i>Modern Dance IA</i> #	2 s.h.
12A. <i>Modern Dance IIA</i> #	2 s.h.
13A. <i>Modern Dance IIIA</i> #	2 s.h.
14A. <i>Modern Dance IVA</i> #	2 s.h.

Once a year

Technique classes in contemporary dance forms designed for the nonmajor—to continue over a two-year range of study. Emphasis on technical development, theories and discussion related to expressive potentialities, and the mastery of stylistic variation in contemporary forms of movement. Assignment of students to one of the sections is based on prior experience, study and advancement. Open only to nondance majors.

12A. Prerequisite: DNCE 11A.

13A. Prerequisite: DNCE 12A.

14A. Prerequisite: DNCE 13A.

15M. <i>Ballet I</i> #	2½ s.h.
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Fall

16M. <i>Ballet II</i> #	2½ s.h.
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Spring

17. <i>Ballet III</i> #	2 s.h.
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Fall

18. <i>Ballet IV</i>	2 s.h.
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Spring

Technique classes designed for the dance major—to continue over a three-year range of study. Emphasis on technical development, mastery of stylistic variation, the extension of expressive potentialities and the understanding of the basic concepts of classical, neoclassical and contemporary ballet. New students are assigned to a section appropriate to their level of experience, knowledge and achievement. DNCE 17 and 18 each include a required 90-minute laboratory component. Open only to dance majors or by permission of instructor.

15A. <i>Ballet IA</i> #	2 s.h.
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Fall

16A. <i>Ballet IIA</i> #	2 s.h.
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Spring

17A. <i>Ballet IIIA</i> #	2 s.h.
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Fall

Technique classes designed for the nonmajor to continue over a two-year range of study. Emphasis on technical development, mastery of stylistic variation, the extension of expressive potentialities and the understanding of the basic concepts of classical, neoclassical and contemporary ballet.

25. <i>The Art of Dance Production</i>	3 s.h.
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Fall

A survey course in basic theater technology as it applies to dance, as well as a fundamental understanding of the running of a dance company. Emphasis on the writing of fact sheets, press releases, press kits, resumes, grants, and some understanding of contract agreements. Includes lighting, costume, makeup, audio equipment and culminates in an actual production. Students are subject to rehearsal and production calls beyond regular class hours.

30. <i>Rhythmic Training and Accompaniment for Dance</i>	3 s.h.
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See course description, page 311.

#Core course

48. *Jazz Dance I* 2 s.h.
Fall, Spring
Instruction and practice in several styles and forms of contemporary jazz dance. Emphasis on understanding the concepts and origins of jazz dance in Broadway theater and technical progress in typical movement patterns. Designed for beginning students.
49. *Jazz Dance II* 2 s.h.
Fall, Spring
A continuation of Jazz Dance I with emphasis on the development and performance of intermediate advanced jazz dance combinations. Prerequisites: DNCE 48, 13 or permission of instructor.
50. *Jazz Dance III* 2 s.h.
Fall, Spring
Instruction and practice in several styles and forms of contemporary jazz dance. Emphasizes the development and performance of advanced jazz combinations. Primarily for dance majors and minors. Prerequisites: DNCE 49, 14 or permission of instructor.
- 111M. *Modern Dance V* 2½ s.h.
Fall
- 112M. *Modern Dance VI* 2½ s.h.
Spring
113. *Modern Dance VII* 2 s.h.
Fall
114. *Modern Dance VIII* 2 s.h.
Spring
Technique classes in contemporary dance forms designed for the dance major—to continue over a four-year range of study. Emphasis on technical development, theories and discussion related to expressive potentialities and the master of stylistic variation in contemporary forms of movement. Assignment of students to one of the sections is based on prior experience, study and advancement. DNCE 113 and 114 each include a required 90-minute laboratory component. Open only to dance majors or by permission of instructor.
- 115M. *Ballet V* 2½ s.h.
Fall
- 116 M. *Ballet VI* 2½ s.h.
Spring
Refer to DNCE 15M. New students are assigned to a section appropriate to their level of experience, knowledge and achievement. Open only to dance majors or by permission of instructor.
121. *Choreography I* 3 s.h.
Spring
A consideration of the basic tools of the dancer: the body as instrument, technique as the on-going development of a vocabulary of movement to serve choreographic demands, “movement as substance,” space, rhythm and dynamics as compositional tools. An exploration of gesture and stylization and abstraction of gesture. Open only to dance majors and minors, physical education majors, or by permission of instructor.
122. *Choreography II* 3 s.h.
Spring
Continuation of DNCE 121. More complex compositional problems, aesthetic elements and theatrical considerations explored through improvisations and the construction of structured phrases. Prerequisite: DNCE 121 or permission of instructor.
123. *Independent Study in Dance* 1-3 s.h.
Fall, Spring
Course designed to meet the special interests of dance majors and minors. Students are permitted to engage in individual research and specific projects under the supervision of a member of the dance faculty. Students must obtain written approval of his or her faculty adviser. Open only to juniors and seniors or by permission of the chairperson of the department.
127. *Dance Appreciation #* 3 s.h.
Spring
Introduction to dance as an art form through the development of analytical viewing skills. Includes aesthetics, definitions, and the study of representative dance masterpieces and the principal genres, forms and styles of theatrical dance. Independent viewing of dance videos and attendance at on-campus concerts required.
128. *History of Dance II* 3 s.h.
Fall
A survey of the historical development of theatrical dancing from the Renaissance to current art forms of ballet and modern dance. Aesthetics and philosophy of dance with particular reference to drama, opera, ballet and modern dance.
130. *Dance Repertory* 3 s.h.
Fall
Reconstruction of a major work or modern dance classic from the files of the Dance Notation Bureau under the direction of a certified dance notation reader. Emphasis on choreographic analysis, aesthetic interpretation and theatrical presentation. Prerequisites: DNCE 14, 18 and permission of the department.
131. *Honors Essay* 3 s.h.
Fall, Spring
Research and writing of a substantial honors essay or a performance project with a strong accompanying written component. If a performance project is chosen, DNCE 121 must have been completed. Open to qualified senior majors who desire to graduate with departmental honors. Approval of the chairperson and an adviser is required.
132. *Dance Styles* 3 s.h.
Spring
Concentrated practicum/seminar in various period and ethnic styles and a continuation of DNCE 128, *History of Dance II*. Study and practice of several major styles under the guidance of specialized dancer/scholars. Readings, lectures and discussions.
133. *Senior Practicum* 2 s.h.
Fall, Spring
Presentation and execution of a creative project in contemporary dance. Open only to senior dance majors or by special permission of the department chairperson.

Drama (DRAM)

Administered by the Department of Drama and Dance. Professor Kolb, *Chairperson*

Professor Sander; Associate Professor Coppenger; Assistant Professors Giebel, Henderson, Pierce; Costumer Ms. McGuire; Mr. Markley, Director of the West End Theatre; Technical Director Mr. Curtiss.

Normally, students electing drama as a major will enroll as such in the freshman year. A personal interview with a member of the drama faculty is recommended at the time of application.

Demonstration of proficiency in theater skills is required for satisfactory completion of all drama major specializations. All students (both minors and majors) must work in a technical capacity a specified number of hours each semester. An additional fee for materials may be required for selected programs.

Students may elect to pursue the B.A. or B.F.A. program. Continuation in the B.F.A. program is dependent on faculty approval. B.F.A. candidates normally spend the last six semesters of full-time study in residence at Hofstra.

NOTE: B.A. and B.F.A. drama majors may not use drama courses to fulfill core course degree requirements.

B.A. SPECIALIZATION IN DRAMA: for students who elect drama concentration as the core of their liberal arts education. Not a professional degree, but offers a broad basis for continued work in graduate school or sound preparation for professional school. The requirements include DRAM 3, 5, 9; 6 semesters of 55 and either 15, 16, 17, 18, 19 or 20; 163 & 164, 173, 174, 175, 176 and 6 additional semester hours in drama (excluding DRAM 1, 2), selected with the approval of the major adviser; ENGL 115, 116.

See complete B.A. requirements, page 79.

B.F.A. SPECIALIZATION IN THEATER ARTS: for the student preparing for a career in the practice of theater as a performer, director, designer or technician. The B.F.A. degree (in performance or production) is intended to provide a small, specialized group of such students with a high level of competence.

PERFORMANCE SEQUENCE

First Year: DRAM 3, 5, 59 & 60; DRAM 55 must be taken for 6 semesters
 Second Year: DRAM 9, 13 & 14, 15, 16; DNCE 11A, 12A
 Third Year: DRAM 23 & 24, 131, 165 & 166, 173, 174; AH 3, 4; DNCE 13A, 14A
 Fourth Year: DRAM 163 & 164, 167, 168, 169, 175, 176, 190; ENGL 115, 116

PRODUCTION SEQUENCE

First Year: DRAM 3, 5; DRAM 55 must be taken for 6 semesters
 Second Year: DRAM 9, 15, 16, 59, 78, 173, 174; AH 3, 4
 Third year: DRAM 17, 18, 19, 20, 131, 163 & 164, 178, 179
 Fourth Year: DRAM 155, 156, 175, 176, 190, 192; ENGL 115, 116

See complete B.F.A. requirements on page 81.

A MINOR IN DRAMA consists of the successful completion of 18½ semester hours, at least 6 hours in residence. DRAM 3 and three semesters of DRAM 55 are required. The remaining 14 semester hours may be chosen from the following: 5, 9, 55, 59A & 60A, 131, 132, 140, 150, 151, 173, 174, 175, 176

Drama courses open to nonmajors: DRAM 1, 2, 3, 5, 9, 55, 59A & 60A, 119-120, 131, 132, 140, 150, 151, 173, 174, 175, 176.

ALPHA PSI OMEGA: a national drama honorary society, see page 75.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1 #, 2. *Theater Appreciation I #, II* 3 s.h. each
 Once a year
 Introduction to theatrical art for the general student, its nature as a composite creation and its contribution to western culture. First semester: analysis and appreciation of the elements which compose the art of the theater. Second semester: examination of the theater in modern culture in light of its tradition in and contribution to western civilization.

3. *Introduction to Theater Arts* 3 s.h.
 Fall, Spring
 What makes theater happen and how? A thorough exploration of the elements that compose the art of the theater.

4. *Freshman Theater Laboratory* 2 s.h.
 Fall, Spring
 An intensive three-week workshop (twelve 2 ½ -hour sessions). The goal is creation of a short theater piece which is presented as an open rehearsal to the departmental community. Emphasis is

on basic exercises in body movement, vocal work and improvisation, with increasing awareness of each other, culminating in a theatrical continuity based on essentially nontheatrical materials (poetry, satiric essays, etc.). Open to freshman performance majors only or by permission. Pass/D+/D/Fail grade only.

5. *Play Production* 4 s.h.
 Fall, Spring
 Introduction to backstage organization and basic practices in stagecraft, lighting and other phases of theatrical production. Required of all drama majors in freshman or sophomore year. Laboratory hours arranged by instructor. Students are subject to production call beyond regular class hours. Prerequisite: DRAM 3 or by permission of department. No liberal arts credit.

9. *Play Analysis* 3 s.h.
 Fall, Spring
 Intensive analysis of dramatic form. A tool in the literary and theatrical study of plays.

13 & 14. *Speech for the Actor* 3 s.h. each
 Once a year
 Basic principles of stage speech. Practice hours in addition to regular class meetings will be required. DRAM 13 for drama majors only or by permission of instructor; DRAM 14 for drama majors only. No liberal arts credit.

15. *Basic Stage Makeup* 2 s.h.
 Fall, Spring
 Fundamentals of straight and corrective makeup with emphasis on styling techniques for the thrust, arena and proscenium stage. For majors only or by permission of the instructor. No liberal arts credit.

16. *Stage Lighting* 2 s.h.
 Spring
 The mechanical and technological basis of stage lighting. Study and practice of the fundamental processes which are necessary groundwork for lighting design. Prerequisite: DRAM 5. No liberal arts credit. (Formerly *Stage Lighting-Intermediate*.)

17. *Scene Construction and Painting Techniques* 2 s.h.
 Every other year
 Intensive concentration on the fundamental skills in planning, construction and painting of scenery, and development of the student's knowledge of methods, materials and tools specific to scenic practice. Prerequisite: DRAM 5. No liberal arts credit.

18. *Costume Construction* 2 s.h.
 Every other year
 A beginning laboratory course devoted to the techniques of draping, sizing and cutting of costumes for the theater. Emphasis on methods and materials. Prerequisite: DRAM 5. No liberal arts credit.

19. *Rigging and Scenery for the Stage* 2 s.h.
 Every other year
 Specific practices of assembling, rigging and moving scenic units. Basic traditional methodology as well as new methods and techniques (mechanical and scientific) adaptable to the theater. Prerequisite: DRAM 5. No liberal arts credit.

20. *Sound and Properties for the Stage* 2 s.h.
 Every other year
 Sources, processes and procedures used in creating and obtaining properties and sound effects for theater production. Extensive project work including the operation of sound equipment. Prerequisite: DRAM 5. No liberal arts credit.

23 & 24. *Speech for the Actor (Advanced)* 2 s.h. each
 Once a year
 Further development of the voice as to range, flexibility, resonance; intensive work in diction for classical drama; dialects.

#Core course

Application of these techniques to representative dramatic literature. One additional weekly contact hour is scheduled because of individualized demands of the course material. Prerequisite: DRAM 14. No liberal arts credit.

55. *Rehearsal and Performance—Theater* ½ s.h.
Fall, Spring

Required of the department major. Practice in all phases of theatrical production in connection with regular departmental presentations. Up to 3 semester hours may be applied to any degree. Pass/D+/D/Fail grade only. Open to the general student body. No liberal arts credit.

59 & 60. *Fundamentals of Acting* 3 s.h. each
Once a year

Basic acting techniques arranged to provide students with continuing guidance in the development of their abilities. Prerequisite for DRAM 59: drama major or permission of instructor; for DRAM 60: DRAM 59 and drama major only.

59A # & 60A. *Acting Workshop* 3 s.h. each
Once a year

Exploration of the basic techniques of stage performance, introduction to major contemporary approaches. Nondrama majors only. Same as DRAM 59 & 60. Prerequisite for DRAM 60A: DRAM 59A.

78. *Theater Design Fundamentals: Methods and Materials #* 3 s.h.
Fall

An exploration of the process of theatrical design. Dramatic script analysis and conceptualization in visual terms. Historic period research within the context of design for the theater. Practical study of basic methods and materials used to graphically depict designs for the theater. Required of all B.F.A. production majors. Specific design materials required. Limited enrollment. Prerequisite: DRAM 5 or permission of instructor.

100. *Honors Essay* 3 s.h.
Fall, Spring

The research and writing of a substantial honors essay, the writing of a full-length play or a performance project with a strong accompanying written component. If a directing project is chosen, DRAM 190 must have been completed and the student must have taken or be concurrently enrolled in DRAM 192. Open to qualified senior majors who desire to graduate with departmental honors. Approval of the chairperson and an adviser is required.

103. *Senior Practicum* 1-3 s.h.
Fall, Spring

Presentation and execution of a creative project in any aspect of theatrical art. Open only to senior B.F.A. Theater Arts and B.A. Drama majors or by special permission of the departmental chairperson. Written permission of an adviser who will supervise the project must be presented at registration.

110. *Special Topics in Drama* 1-3 s.h.
See course description, page 311.

112. *Advanced Special Topics in Drama* 1-3 s.h.
Periodically

Intended primarily for students who have had previous background in subjects under discussion. Closer study of aspects of dramatic literature, theater history or performance and production skills. Junior class standing or permission of instructor or chairperson. May be repeated for credit when topics vary.

115. *Independent Studies* 1-3 s.h.
Periodically

Research, production or performance work on subject of advanced or special interest resulting in a substantial essay, major project or public performance. Offers opportunity for experienced drama major to pursue individual research or exploration under faculty supervision. Permission of chairperson and adviser.

Not open to freshmen or sophomores. May be repeated for credit when topics vary.

119-120. *Playwriting* 3 s.h. each
Periodically

Theory and practice in writing dramatic material for the theater. The student's writing is considered in light of fundamental techniques of dramatic construction. Prerequisite: permission of department.

131, 132. *History of the Theater* 3 s.h. each
Every other year

First semester: from the Greeks and Romans, through the Middle Ages and ending with the English Renaissance with emphasis upon methods of staging, theater construction and the influence of cultural changes on the theater as an art form. Second semester: from the Restoration in England to the Off-Off-Broadway movement of the 1970s, paying attention to the methods of staging and theater construction, and to the influence of cultural changes both abroad and here in America. Prerequisite: DRAM 3 or permission of instructor.

140. *Art of the Film* 3 s.h.
Fall, Spring

A survey of the art and history of motion pictures. Aesthetic and social influences upon the medium and the medium's effects upon society are examined. Representative motion pictures illustrating the significant milestones in the development of the film are studied. Field trips and/or screenings, outside of class hours, may be required.

150. *Theater Today* 3 s.h.
Periodically

Phenomena of the theater off- and off-off-Broadway. The new plays, playwrights and theater innovation will be covered. The approach is sociological, critical and evaluative. Attendance at performances in the New York area will be required. Not open to freshmen. Separate materials fee for theater attendance required.

151. *The Audience as Artist* 3 s.h.
Periodically

A study of the contemporary audience primarily as it relates to the content, context and form of film, theater and television events. Emphases are on the necessity of audiences as co-artists in the aesthetic event and exploration of the social forces currently serving to dissipate rather than polarize them. Participation in and attendance at varied theatrical events required at the student's expense. Not open to freshmen or sophomores.

155, 156. *Advanced Production Workshop* 3 s.h. each
Every other year

Intended primarily for the production major. First semester: special problems in production and training for technical direction. Second semester: advanced stage lighting, special techniques and laboratory experimentation. Students are given a variety of responsible positions in connection with regular departmental presentations. Rehearsal and production calls beyond regular class hours. Prerequisites: DRAM 5 and permission of instructor. No liberal arts credit.

157. *Choreography for the Theater #* 3 s.h.
Once a year

A continuation of work begun in movement theory and technique courses. The choreographic elements of form, content and design are taught and explored through the improvisation and structured phrases, and studies toward the eventual goal of theatrical presentation. Prerequisite: DNCE 14A or permission.

163 & 164. *Seminar in Theater Style* 3 s.h. each
Once a year

First semester: theoretical approaches to both dramatic genre and period as sources of theatrical styles and their relationships

to the work of the actor, director, designer. Second semester: the integration of independent research in these areas with theatrical demonstration. Students may be subject to call beyond regular class hours. Prerequisites: DRAM 3, 5, 9.

165 & 166. *Acting: Characterization and Scene Study* 3 s.h. each

Once a year
Exploration of techniques in characterization, laboratory in analysis and developments of a major role, scene study workshop. Prerequisites: DRAM 59 & 60 and permission of instructor.

167, 168. *Repertory Theater* 3 s.h. each

Periodically
Advanced work in performance skills. Arranged whenever possible around the specialties of a visiting professor or artist. Prerequisite: invitation of the faculty. May be repeated for credit when topics vary.

169. *Acting for Television and Film* 3 s.h.

Spring
Techniques used in acting for the camera. Processes that differ from those used in stage acting. Extending the range of the student actor to include the electronic and film media. Scene study, appropriate projects assigned and three substantive written critical evaluations are required. Students are subject to rehearsal and production calls beyond class hours. Prerequisites: DRAM 59 & 60 and individual audition. Same as AVF 90.

173, 174. *History of the Drama I #, II #* 3 s.h. each

Once a year
Lines of development in the creation of the great dramatic literature of the West, intensive reading of the principal playwrights from Aeschylus to Sheridan. Prerequisites: ENGL 1-2 and passing the English Proficiency Examination.

175, 176. *Modern Drama I #, II #* 3 s.h. each

Once a year
Trends in contemporary drama related to social and literary trends of the 19th and 20th centuries, plays from Ibsen to Ionesco. Prerequisites: ENGL 1-2 and passing the English Proficiency Examination.

178. *Theater Design* 3 s.h.

Every other year
Emphasis on principal styles of stage design in contemporary and historical settings. Prerequisite: DRAM 78 or permission of instructor.

179. *Advanced Theater Design* 3 s.h.

Every other year
Emphasis on methods and techniques employed in modern scenic practice. Prerequisite: DRAM 178.

181. *Dramatic Theory and Criticism* 3 s.h.

Periodically
A study of the development of dramatic theory and criticism from Aristotle to the present day. Emphasis will be upon critical standards throughout the ages and their application to the drama in performance. Not open to freshmen or sophomores.

190. *Play Directing* 3 s.h.

Fall
The steps—conceiving, casting, coaching, rehearsing, etc.—whereby a theatrical representation is translated from the director's conception of the play. Students are subject to rehearsal and production calls beyond regular class hours. Prerequisites: DRAM 3, 5, 9.

192. *Directing Seminar* 3 s.h.

Spring
Advanced problems in directing plays of various types and historical periods. Students are required to direct scenes outside regular class hours. Prerequisite: DRAM 190.

Economics (ECO)

Administered by the Department of Economics/Geography.
Associate Professor Kozlov, *Chairperson*

Professors DeFreitas, Guttmann, Moghadam; Associate Professors Christensen, Wiley; Assistant Professors Duffy, Mazzoleni.

THE AUGUSTUS B. WELLER CHAIR IN ECONOMICS is held by Dr. Irwin L. Kellner. See page 338.

Students may major or minor in economics or enroll in courses of special interest. Course levels are classified as:

Introductory: ECO 1, 2, 7, 10

No prerequisites. Open to all students.

Intermediate: all 100-level courses not on the advanced level.

Open only to students who have completed 30 or more semester hours. Assumes at least one prior semester of economics. Under special circumstances, this may be waived for juniors or seniors by the departmental chairperson. B.B.A. majors must have completed ECO 1,2 before electing an intermediate course.

Advanced: ECO 100, 130, 132, 144, 150, 151A, 152A, 172, 180, 182
Courses designed primarily for majors and minors but open to other students. Prerequisites are ECO 1, 2 and other courses as indicated. ECO 7 may be used as prerequisite instead of 1.

B.A. SPECIALIZATION IN ECONOMICS: 33 semester hours in economics including ECO 1 (or 7), 2, 130, 132, 144, 150, 184 (economics electives must be at 100 level); and, in addition 3 semester hours in statistics. Of the geography courses, only GEOG 135 may be offered as an economics elective.

Mathematics core requirements: MATH 9, 10 or 10E.

Recommended: basic courses in computer science and the social sciences other than economics.

AREAS OF INTEREST

The following list serves as a guide for a student's particular area of interest. This does not supersede the six specific courses required of all economic majors.

Economic theory: 125, 130, 132, 144, 150, 172; GEOG 135

Economic history: 139, 140, 144

Economic development and area studies: 110, 111, 112, 114, 115, 116, 143, 145, GEOG 135 (see courses listed below under international economics)

Human resources: 121, 130, 141C

International economics: 137, 142 (see courses listed above under economic development and area studies)

Public sector economics: 131, 136, 165, 171

Quantitative economics: 180, 182, 184

See complete B.A. requirements, page 79.

B.S. SPECIALIZATION IN BUSINESS ECONOMICS: candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra.
2. At least 62 semester hours must be completed in the liberal arts. Economics courses offered by the Department of Economics and Geography may not be applied toward this requirement.
3. There are three requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization, at least three semester hours in core course work toward each divisional core course requirement, and the last 30 semester hours. The 15 semester hours in the

major and the resident core course requirement need not be included within the last 30 hours.

4. The following general requirements:

ENGL 1-2 or placement examination;*

The same core course requirements as for the B.A., see page 84:

Humanities: 9 semester hours

Natural Sciences: 3 semester hours; and mathematics:

MATH 9, 10 or 10E, for a divisional total of 9 semester hours

Social Sciences (other than economics): 9 semester hours

Languages: LING 101 or proficiency at least level 2 in one foreign language. This proficiency can be demonstrated by satisfactory completion of a level 2 foreign language course in college or by passing the foreign language level 2 proficiency examination administered by the language departments.

5. The following major requirements:

33 semester hours in economics including ECO 1, or 7, 2, 130, 132, 144, 150, and 184. Students planning to pursue graduate work in economics are strongly advised to take ECO 182 (*Introduction to Econometrics*). Economics electives must be at the 100 level. In addition, 3 semester hours in statistics (MATH 8, or QM 1), and four semester hours in computer science (BCIS 14) are required. Students are required to take a total of 25 hours in business. Business credits in excess of 25 will not be counted toward a degree in Business Economics. All business courses must be chosen under advisement. Of the geography courses, only GEOG 135 and GEOG 193 may be offered as economics electives.

Recommended: students who wish to specialize in a specific area of business are recommended to plan early, and under faculty advisement take one of the following six combinations of courses in business, elective economics, and general requirements.

Accounting: ACCT 101, 102, 123, 124

Finance: ACCT 101; FIN 101, 110, 132, 160, 165; QM 122; ECO 125, 142, 180, 182; MATH 19, 20

BCIS/QM: BCIS 30, one of the following four BCIS courses 40, 50, 90, 95, and the following BCIS courses: 116, 117, 120; QM 122; GEOG 60, 160

International Business: IB 150, 154, one of the following: 160, 161, 162, or 163, and IB 175; FIN 101; choice of twelve credits from the following economics courses: ECO 142, 110, 111, 112, 114, 115, 116, 117, 125, 137, 139, 140, 143, 145, 165; six credit hours in geography including three credits in GEOG 1 or 135

Management: MGT 101, any five, three credit undergraduate elective courses in management and/or general business (except GBUS 1 and 180); FIN 101; choice or twelve credits from the following economics courses: ECO 117, 121, 131, 133, 141C, 169, 171

Marketing: MKT 101, 124, 144; QM 122; ECO 131, 169, 171; GEOG 60, 160.

B.A. SPECIALIZATION IN LABOR STUDIES

SEE PAGE 225.

See Areas of Interest listed above under the B.A. Specialization.

TEACHING OF HIGH SCHOOL SOCIAL STUDIES, see page 291.

A MINOR IN ECONOMICS consists of the successful completion of 18 hours of economics, at least 6 hours in residence.

OMICRON DELTA EPSILON: an international economics honor society, see page 76.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1, 2 *Principles of Economics* 3 s.h. each
Fall, Spring, Summer

First semester: introduction to economic concepts and doctrines, followed by an extended analysis of the impact of the Keynesian

revolution on the government's role in the economy, its effects on economic stability, on growth and on social problems such as poverty. Second semester: examination of the market economy emphasizing oligopoly, income distribution followed by an analysis of special problems arising out of international trade. Credit given for ECO 1 or 7 or New College SEB 1; Credit given for ECO 2 or New College SEB 1, not both. ECO 1 is not a prerequisite for ECO 2.

7. *Explorations of Current Economic Issues* # 3 s.h.
Periodically

Introduces key concepts of economics through detailed exploration of topics at the center of economic and political debate: economic growth and income distribution; proper role of government in our "mixed" economy; globalization of economic activity; strategic role of financial institutions and markets in the new world economy. Credit for this course or ECO 1, or New College SEB 1.

10. *Economics, Environment and Community* # 3 s.h.
Periodically

Examination of the issues of natural resource limits, the ongoing quest and needs for economic growth, threats to environmental sustainability from over-exploitation of resources and environmental pollution, and a variety of economic and social policies designed to mitigate adverse human impacts on resource and environmental systems. May not be taken as one of the four elective courses in economics required for the economics major.

100. *Honors Essay* 3 s.h.
Fall, Spring

Research for and the writing of a substantial essay in the field of economics. Open only to senior economics majors who are eligible for and desire to graduate with departmental honors and who secure, before registration, written permission of the instructor who will supervise the essay.

101. *Introduction to Economics* 3 s.h.
See course description, page 311.

110. *Economics of Latin America* 3 s.h.
Periodically

Examination of historical roots of present day economies in Central and South America. Relationship between the structure of land holding and economic development. Causes of high rates of inflation. Role of Spain, Portugal and the Catholic Church in the development of the environment for growth or the lack thereof. Prerequisite: one introductory course in economics.

111. *Economic Development in Sub-Saharan Africa* 3 s.h.
Periodically

Development theories, practices and results evident in the region's primary industries such as agriculture, pastoral farming, mining and manufacturing from the colonial period to the present. Precolonial socioeconomic formations in each country within the region are examined as background to transformations fostered by colonialism. Prerequisite: one introductory course in economics.

112. *Economic Development of China* 3 s.h.
Periodically

Analysis of several industrialization strategies adopted by the Chinese after 1949 and shifts in ideology and social policy that have accompanied them. Some 19th and early 20th century economic history helps to understand present problems. Prerequisite: one introductory course in economics.

114. *Japan's Modern Economy* 3 s.h.
Periodically

Historical background of the late 19th century to World War II. Structural characteristics of the contemporary economy; indus-

*See University Degree Requirements, page 71.

#Core course

- trial organization, banking and finance, labor market. Role of government and macroeconomic policies. Economic, social and cultural factors in growth. Japan and the world economy. Prerequisite: one introductory course in economics.
115. *Economy of Western Europe* 3 s.h.
Periodically
Post-World War II economic growth and policy in Western Europe; economic integration and the European Economic Community; policy, problems, debates. Specific countries studied: France, Britain, West Germany, Italy. Prerequisite: one introductory course in economics.
116. *Economics of the Middle East* 3 s.h.
Periodically
Contemporary economy of the Middle East in its sociopolitical and historical contexts. Focus is on the post-World War II period: population, industrialization, oil, economic implications of militarization, growing religious fervor, revolution and rising instability. Prerequisite: one introductory course in economics.
117. *Women and Development in the Middle East #* 3 s.h.
See course description, page 311.
118. *Political Economy of Turkey* 3 s.h.
See course description page 311.
120. *African Labor Economics* 3 s.h.
See course description, page 311.
121. *Economics of Discrimination* 3 s.h.
Periodically
An inquiry into the distribution of income and wealth, with emphasis on opportunities and returns of minority groups, the economics of discriminatory practices, alternatives in providing greater equity and welfare to victims of discrimination. Prerequisite: one introductory course in economics.
125. *Monetary Economics* 3 s.h.
Periodically
Forms and functions of money; theories of money demand and supply; the relation between monetary aggregates, credit conditions and economic activity in the different models; the role of central banking; domestic and international aspects of monetary policy. Prerequisites: ECO 1, 2.
130. *Intermediate Microeconomics* 3 s.h.
Fall, Spring
Microeconomic theory; factors determining production, consumption and exchange. Theory illustrated with case materials. Prerequisites: ECO 1, 2. Prerequisite or corequisite: MATH 10 or 10E.
131. *Government and Business* 3 s.h.
Fall, Spring, Summer
Public policy toward business, government powers and private rights, the structure of industrial markets, regulation of competition and monopoly, economic aspects of the antitrust laws. Prerequisite: ECO 2.
132. *Intermediate Macroeconomics* 3 s.h.
Once a year
Theory; GNP and its limitations; components of aggregate demand; monetary and fiscal policy; analysis of inflation, unemployment and growth. Prerequisites: ECO 1, 2. Prerequisite or corequisite: MATH 9.
133. *Health Economics #* 3 s.h.
See course description, page 312.
136. *Public Finance and Fiscal Policy* 3 s.h.
Periodically
Expenditures and revenues of federal, state and local governments; analysis of effects upon private enterprise and public welfare; fiscal policy in relation to equity, stability, growth and defense. Prerequisite: one introductory course in economics.
137. *Transnational Enterprise in World Economy* 3 s.h.
Periodically
Origins, organization, magnitude and scope of private and state-owned TNE's. Neoclassical, managerial and radical theories of the transnational firm. Evaluation of the market and nonmarket including political, behavior of TNE's and their socioeconomic impact on both advanced capitalist and socialist economies, and the underdeveloped nations of the Third World. Case studies from agribusiness, minerals and fuels, manufacturing and financial sectors. Public policy. Prerequisite: one introductory course in economics.
139. *Economic History of Europe* 3 s.h.
Every other year
The changing economic framework of European institutions and cultures studied in selected pivotal periods such as the 11th-12th, 14th-15th and 17th-19th centuries. Prerequisite: one introductory course in economics or HIST 11,12. Same as HIST 139.
140. *Economic History of the United States* 3 s.h.
Every other year
Trends and patterns in the production, distribution and consumption of material wealth that mark the economic development of the United States from colonial times to the 20th century. These matters are subjected to economic analysis, but are also seen in relation to changing social and political institutions and moral values. Prerequisite: one introductory course in economics or HIST 13, 14C. Same as HIST 140.
- 141C. *Labor Economics #* 3 s.h.
See course description, page 312.
142. *International Economics* 3 s.h.
Fall, Spring
Examination of international trade theory: mercantilism, comparative advantage, protection, balance of payments, adjustments and the transfer problem. Selected historical and current issues including imperialism, multinational corporations, the U.S. balance of payments, and the role of trade, foreign aid and investment in developing poor countries. Prerequisite: one introductory course in economics.
143. *Economic Development* 3 s.h.
Periodically
Problems of the developing economies of the world, theories of development, requirements for and obstacles to economic development, policies to promote economic redevelopment. Prerequisite: one introductory course in economics.
144. *History of Economic Thought* 3 s.h.
Fall
Economic thought and policy in modern times and their relation to social, political and economic institutions and problems. Prerequisites: ECO 1, 2.
145. *Comparative Economic Systems* 3 s.h.
Periodically
Theory and history of markets and alternatives to markets as allocators of resources. Successes and failures of centralized economic planning (U.S.S.R., Maoist China, Cuba), reform of centrally planned economies (Russia, post-Maoist China, Eastern Europe), determination of the appropriate mix of regulation and marketization (U.S.A., Western Europe, Japan). Techniques of planning.
150. *Modern Economic Theory* 3 s.h.
Spring
Recent developments in economic theory including selected contributions of neoclassical, welfare, institutional and aggregative theorists. Prerequisites: ECO 130, 132.

151A, 152A. *Readings in Economics* 1-3 s.h. each
Periodically

Intensive reading, oral and written work in one area. Open only to students interested in advanced work in economics who have received agreement of a faculty member who will serve as supervisor. Prerequisites: ECO 1, 2 and permission of chairperson. May be repeated twice for credit when topics vary.

165. *Urban and Regional Economics* 3 s.h.
Periodically

Explores the structure of cities and regions, the location of corporate (manufacturing, commercial, financial) activities, housing, transportation, recreational facilities within and across regions; influence of government tax, subsidy, investment, regulatory policies; emphasis on the United States. Prerequisite: ECO 2; geography majors and minors may substitute GEOG 103 or GEOG 135 for ECO 2. May be used towards the 27 semester hours in geography required for geography majors.

169. *Industrial Economics* 3 s.h.
See course description, page 312.

171. *Law and Economics* 3 s.h.
Periodically

An exploration of the applications of economic analysis to legal issues: analysis of major cases in selected areas of the law encompassing economic rights, including but not limited to, property, contract, environmental and antitrust law. Prerequisite: ECO 131 or permission of instructor.

172. *Seminar: Economic Theory* 3 s.h.
Periodically

The contents of this seminar will be selected by the instructor and announced beforehand by means of a detailed syllabus. Readings and written work will be integrated with designated themes geared to exploring new developments in and applications of economic theory. Prerequisites: ECO 1, 2.

180. *Introduction to Mathematical Economics* 3 s.h.
Periodically

A systematic exposition of matrix algebra, the differential and integral calculus, and some of their applications to economic analysis, particularly the study of equilibria and comparative statics. Prerequisites or corequisites: ECO 130 or 132, and permission of instructor; MATH 9 and 10 or 10E.

182. *Introduction to Econometrics* 3 s.h.
Periodically

Fundamental concepts and methods of the branch of economics designed to give empirical content to economic reasoning. Historical development of a distinctive econometric approach and theoretical underpinnings of principal methodologies; construction of economic models embodying hypothesized relationships between key variables and use of simple and multivariate regression techniques to both describe factual relationships and to test rival economic theories about the strength and direction of such relationships; applied econometric analysis of wide array of topics such as investment, inflation, income and employment differentials. Prerequisites: QM 1, ECO 1, 2.

184. *Introductory Research and Report Writing* 3 s.h.
Once a year

Interdisciplinary course in practical methods of empirical analysis of a wide variety of social science issues. Basic techniques of data collection and verification, descriptive presentations in tables and graphs. Introduction to government, business, economic and social science computerized data banks and to the use of the most popular spreadsheet and statistical software for desktop computers to organize data, present them graphically and to test hypotheses. Emphasis on applications to a range of sociological, political, and economic questions, culminating in a term paper based on independent empirical research of one such question. Open to all social science and B.B.A. students. Should be taken

by economics majors at the same time as ECO 1, 2 or as soon as possible thereafter. Prerequisite: QM 1 or BI0 100 or MATH 8 or PSY 140 or SOC 180. (Formerly *Workshop: Analysis of Socioeconomic Data.*)

Education and Allied Human Services, School of

SEE PAGE 108.

Educational Studies (ED ST)

Administered by the Department of Foundations, Leadership and Policy Studies. Professor Osterman, *Chairperson*

Associate Professor Duarte and Assistant Professor Scott, *Codirectors*

THE EDUCATIONAL STUDIES PROGRAM is the interdisciplinary examination of education as institution and as enterprise. It is designed specifically for those students concerned with the interpretation, appraisal and reform of our society's educational arrangements; the program is not designed to prepare school teachers or other school personnel. Students will be provided with the opportunity to view education from philosophical, historical, sociological, political, anthropological and psychological perspectives.

An undergraduate minor in Educational Studies requires 18 semester hours chosen from the courses listed below with a minimum of 15 semester hours in the School of Education including ED ST 170, *Colloquium in Educational Studies*.

PROGRAM REQUIREMENTS

CRSR	113. <i>Educational Psychology</i> , 3 s.h. 115. <i>The Helping Relationship</i> , 3 s.h.
ELED	125. <i>Child Development in the School Setting, Home & Community</i> , 6 s.h.
FDED	110. <i>History of American Education</i> , 3 s.h. 111. <i>The American School</i> , 3 s.h. 112. <i>Politics of Education</i> , 3 s.h. 114. <i>The Education of America's Minority Groups</i> , 3 s.h. 115. <i>Introduction to Sociology of Education</i> , 3 s.h. 120. <i>Aesthetics & Education</i> , 3 s.h. 121. <i>Existentialism & Education</i> , 3 s.h. 127. <i>Introduction to Philosophy of Education</i> , 3 s.h. 129. <i>Current Problems in Education</i> , 3 s.h. 130. <i>Topics in the History of American Education</i> , 3 s.h. 131. <i>Anthropology & Education</i> , 3 s.h. 155, 156. <i>Seminar in Foundations of Education</i> , 3 s.h. each. 161, 162. <i>Readings in Foundations of Education</i> , 1-3 s.h. each.
PESP	155. <i>Leisure Interpretation</i> , 3 s.h.
PHI	25. <i>Theories of Human Nature</i> , 3 s.h.
PSY	53. <i>Child Psychology</i> , 3 s.h. 54. <i>Adolescent Psychology</i> , 3 s.h.
SOC	102. <i>Social Institutions</i> , 3 s.h.

Advisement in the Educational Studies Program is available through the foundations of education area. Students are urged to confer with the faculty early in their program to enable individual planning of programs.

COURSE

170. *Colloquium in Educational Studies* 3 s.h.
Periodically
An integrative analysis of selected aspects of educational processes, policies and institutional practices. Prerequisite: 12 s.h. toward the Educational Studies minor.

Elementary and Early Childhood Education (ELED)

Due to changes in the New York State teacher certification regulations, students completing (finishing) degree programs after December 2003 and who are seeking Hofstra's recommendation for teacher certification, may have to complete additional requirements for their program of study.

Consult your faculty adviser for information pertaining to your particular program.

Administered by the Department of Curriculum and Teaching, Professor Fromberg, *Chairperson*

Professor Koch; Associate Professors Davey, Elijah, Kaufman, Mileta; Assistant Professors Ahern, Cooper, Smith, Toher; Special Assistant Professor Libresco.

UNDERGRADUATE TEACHER PREPARATION FOR EARLY CHILDHOOD EDUCATION (BIRTH-GRADE 2)

Bachelor of Arts. The undergraduate early childhood education program leads toward New York State initial teacher certification in early childhood (birth-grade 2). The early childhood program is designed to blend on-campus preparation with field experiences in a variety of school settings, culminating in full-time student teaching. Literacy, multicultural education, and information technology are integrated throughout all aspects of this program. The program conforms to the standards and guidelines of the National Association for the Education of Young Children and the New York State Learning Standards for Early Childhood Education.

PROGRAM REQUIREMENTS

Students select a B.A. degree program from an area of the liberal arts and sciences (excluding fine arts, dance, drama, and music). After completing 45 semester hours of college course work, students choose early childhood education as a *co-major*. This education program is designed to blend on-campus preparation with field experiences in a variety of school settings, culminating in full-time student teaching. Literacy, multicultural education, and information technology are integrated throughout all aspects of the programs. Hofstra's undergraduate program in early childhood is a New York State Registered program. Students who successfully complete the program and who obtain passing scores on the New York State Teacher Certification Examinations (NYSTCE) will qualify for New York State Initial Teaching Certification.

ADMISSION CRITERIA FOR THE EARLY CHILDHOOD EDUCATION PROGRAM

After completing 45 semester hours of college course work, students may apply for admission to the School of Education and Allied Human Services through the Department of Curriculum and Teaching and is based on a comprehensive review of multiple criteria, including the following:

- A passing score on the Hofstra English Proficiency Examination.
- An overall GPA of 2.75 or higher on overall course work and liberal arts and sciences course work.
- Two letters of reference addressing the applicant's potential to succeed in the teaching profession.
- A written personal statement of professional intent and rationale.

The department understands that any single criterion may not reliably predict a student's potential for success in the program. Students may consider applying even if they fail to meet one of the criteria but feel that other aspects of their experience might compensate.

Required Course Work for the B.A. in Early Childhood Education

The Department of Curriculum and Teaching strongly recommends that emphasis on course work dealing with multi-cultural issues and social contexts of education. In order to ensure that prospective teachers have a broad education in the liberal arts and sciences, all students in B.A. degree programs with co-majors in early childhood education must complete course work from each of the content areas below. When programs are planned carefully, these requirements may be satisfied while completing the Hofstra Core. Specific courses and minimum credits required for prospective teachers are indicated.

Whereas satisfaction of the Hofstra Core may require more credits in the indicated areas than those stipulated below, the designated courses with the following areas *must* be included in the B.A. degree program of the early childhood and the elementary education major. Comparable course work must be completed by New College and School of Communication students in each of the areas below.

Areas to be included in partial fulfillment of the Hofstra Core
Artistic Expression/Humanities: 3 s.h.
 AH 74, 101; CLL 39, 190; DNCE 127; DRAM 1; MUS 3; JWST ENGL 40, 139

Creative Participation: 3 s.h.
 FA 8. *Art Concepts and Experiences*, or equivalent recommended

Communication: 3 s.h.
 SPCM 1. *Oral Communication*; SPCM 7. *Public Speaking*, or ENGL 133. *General Creative Writing*

Information Retrieval: 0-3 s.h.
 CSC 5. *Overview of Computer Science*, a passing score on the Examination for Information Retrieval (EIR), or comparable course work.

Historical Concepts: 3 s.h.
 HIST course listed in the Social Sciences Division of the Hofstra Core. (Completion of American History, Western Civilization, Global History, or the equivalent prerequisite to ELED 135).

Social Science Concepts: minimum 9 s.h.
 SOC 8, 9, 36, 37, (3-6 s.h.) or equivalent recommended; PSY 33 or 34 recommended; ANTH 3, HIST 72C or 162C, or PSC 1

Philosophy: 3 s.h.
 PHI 161 recommended

Language other than English: 0-12 s.h.
 Completion of level 4 competence in a language other than English, placement above level 4, or completion of the special language option. *American Sign Language*, REHB 191 and 192, may be used to satisfy this requirement for New College students. (6 s.h.)

Scientific Processes: 6 s.h.
 BIO 4. *Human Biology* required (prerequisite to ELED 129A). Satisfy the Natural Sciences Core requirement by completing one of the following laboratory sciences courses: BIO 1&2; CHEM 3A with 3B; GEOL 1C, 2C; or PHYS 1A with 1B

Mathematical Processes: 3 s.h.
 Any MATH course listed under the Mathematics/Computer Science division of the Hofstra Core. MATH 16 is highly recommended for non-mathematics/non-science majors.

Written Analysis and Expression: 6 s.h.
 ENGL 1-2, and a passing score on the Hofstra English Proficiency Examination (also required for transfer students). Successful completion of the New College Writing Program is a require-

ment prior to admission to ELED courses for New College students.

Cross-Cultural Appreciation: 3 s.h.
Any course in the Cross-Cultural division of the Hofstra Core.

Transfer students must plan their courses of study carefully with an academic adviser to assure that their programs will fulfill both the University and New York State Education Department requirements.

PEDAGOGICAL CORE REQUIREMENTS FOR EARLY CHILDHOOD EDUCATION

ELED	41. <i>Basic Concepts in Arithmetic and Related Teaching Practices</i> or a passing score on the Departmental Mathematics Proficiency Examination	2 s.h.
FDED	111. <i>The American School</i> or 127. <i>Introduction to Philosophy of Education</i>	3 s.h.
SPED	101. <i>Inclusion: Infants, Toddlers, Pre-schoolers, and K-6 Children</i>	3 s.h.
ELED	104A. <i>Educational Computing Issues, Trends & Practices</i>	1 s.h.
	111B. <i>Young Children's Movement, Music, Rhythmic Activities & Play for the Classroom</i>	1 s.h.
	122. <i>Art in the Elementary School</i>	1 s.h.

PROGRAM REQUIREMENTS FOR THE EARLY CHILDHOOD EDUCATION PROGRAM (BIRTH-GRADE2)

Phase 1. Satisfactory completion of 45 s.h. of college level course work and admission to the Early Childhood Education Program.

Phase 2.

ELED	134. <i>Infant, Toddler, Preschool, & Primary, Child Development in Group Settings, Home & Community</i>	5 s.h.
	135. <i>Interdisciplinary Teaching of Social Studies: Early Childhood</i>	3 s.h.
	135E. <i>Social Studies Field Placement Laboratory</i>	1 s.h.
	136. <i>Integrated Teaching of Emergent Reading, Writing & Children's Literature: Early Childhood Education</i>	5 s.h.
	136E. <i>Literacy Field Placement Laboratory</i>	1 s.h.
	128A. <i>Integrated Teaching of Mathematics in Early & Childhood Education</i>	3 s.h.
	128E. <i>Mathematics Field Placement Laboratory</i>	1 s.h.
	129A. <i>Integrated Teaching of Science in Early Childhood & Childhood Education</i>	3 s.h.
	129E. <i>Science Field Placement Laboratory</i>	1 s.h.

Phase 3. Admission to Student Teaching

ELED	137. <i>Student Teaching: Early Childhood</i>	6 s.h.
	138. <i>Reflective Inquiry & Issues in Early Childhood Curriculum Design & Development</i>	3 s.h.

Student receiving a grade lower than C- in a professional education course must repeat the course and receive a grade of C- or higher in order to remain in the program.

Student Teaching Prerequisites

Program Phases 1 and 2 must be completed prior to student teaching. Application forms for student teaching are available in the Office of Field Placement and are accepted by October 1 or March 1 for the succeeding semester. Admission criteria are as follows: 1) a cumulative GPA of 2.75 on overall course work; 2) a GPA of 2.5 or higher in liberal arts and sciences course work; c) a grade of C- or higher in each ELED course completed and 4) no unresolved INC grades in professional education course work.

*See note below regarding teacher certification examinations.

Graduation Requirements for the Early Childhood Education Program

Graduation from an undergraduate early childhood education program requires: 1) completion of all graduation requirements for the appropriate B.A. degree in the liberal arts and sciences; 2) completion of all course requirements for the co-major in early childhood education; 3) the successful completion of *at least* 129 semester hours. (Military Science courses may not be counted toward this total semester hour requirement.); 4) completion of *at least* 93 semester hours in liberal arts and sciences course work (FDED 111 and 127 may be counted toward this requirement); 5) a minimum GPA of 2.75 in overall course work; 6) a minimum GPA of 2.5 in liberal arts and sciences course work; 7) an electronic portfolio, illustrating the student's education course work and professional accomplishments.

Teacher Certification Requirements

Upon successful completion of a teacher education program, students will be eligible to apply for the University's recommendation for New York State teachers' Initial Certificate. Students are required to pass each of the New York State Teacher Certification Examinations: The Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills—Written (ATS-W), and the Content Specialty Test (CST). Students not receiving passing scores on all three examinations will not be eligible for certification. Additional information pertaining to certification can be found on page 109.

**Note: It is *strongly recommended* that students complete the Liberal Arts and Sciences Test (LAST) of the New York State Teacher Certification Examinations prior to student teaching, and the Assessment of Teaching Skills—Written (ATS-W) and the Content Specialty Test (CST) during student teaching. All three NYSTCEs should be completed prior to graduation. Students not receiving passing scores on all three examinations will not be eligible for initial certification.

UNDERGRADUATE TEACHER PREPARATION FOR ELEMENTARY EDUCATION (GRADES 1-6)

The undergraduate elementary education program leads toward New York State initial teacher certification in childhood education (grades 1-6). The elementary education program is designed to blend on-campus preparation with field experiences in a variety of school settings, culminating in full-time student teaching. Literacy, multicultural education, and information technology are integrated throughout all aspects of the programs. The program conforms with the standards and guidelines of the Association for Childhood Education International and with the New York State Learning Standards for Childhood Education.

PROGRAM REQUIREMENTS

Students select a B.A. degree program from an area of the liberal arts and sciences (excluding fine arts, dance, drama, music; speech-language-hearing sciences; and selected majors in New College and the School of Communication). After completing a minimum of 45 semester hours of college course work, students choose elementary education as a *co-major*. Hofstra's undergraduate program in elementary education is a New York State Registered program. Students who successfully complete this program and who obtain passing scores on the New York State Teacher Certification Examinations (NYSTCE) will qualify for New York State Initial Teacher Certification.

ADMISSION CRITERIA FOR THE ELEMENTARY EDUCATION PROGRAM

After completing a minimum of 45 semester hours of college course work, students may apply for admission to the School of Education and Allied Human Services through the Department of Curriculum and Teaching. Admission into a B.A. degree program in the Department of Curriculum and Teaching is

based on a comprehensive review of multiple criteria, including the following:

- A passing score on the Hofstra English Proficiency Examination or completion of the New College Writing Program.
- An overall GPA of 2.75 or higher in liberal arts and sciences course work.
- Two letters of reference addressing the applicant's potential to succeed in the teaching profession.
- A written personal statement of professional intent and rationale.

Required Course Work for B.A. Specialization in Elementary Education

The Department of Curriculum and Teaching strongly recommends an emphasis on course work dealing with multicultural issues and social contexts of education. In order to ensure that prospective teachers have a broad education in the liberal arts and sciences, all students in B.A. degree programs with majors in elementary education must complete course work from each of the content areas below. When programs are planned carefully, these requirements may be satisfied while completing the Hofstra Core. Specific courses and minimum credits required for prospective teachers are indicated.

Whereas satisfaction of the Hofstra Core may require more credits in the indicated areas than those stipulated below, the designated courses within the following areas *must* be included in the B.A. degree program of the elementary education major. Comparable course work must be completed by New College and School of Communication students in each of the areas below.

Areas to be included in partial fulfillment of the Hofstra Core
 Artistic Expression/Humanities: 3 s.h.
 AH 74, 101; CLL 39, 190; DNCE 127; DRAM 1; MUS 3, JWST 10, 30, or 108; ENGL 40 or ENGL 139

Creative Participation: 3 s.h.
 FA 8. *Art Concepts and Experiences*, or equivalent recommended

Communication: 3 s.h.
 SPCM 1. *Oral Communication* or SPCM 7. *Public Speaking*

Information Retrieval: 0-3 s.h.
 CSC 5. *Overview of Computer Science*, a passing score on the Examination for Information Retrieval (EIR), or comparable course work.

Historical Concepts: 3 s.h.
 HIST course listed under the Social Science Division of the Hofstra Core. (Completion of American History, Western Civilization, Global History, or the equivalent prerequisite to ELED 126A).

Social Science Concepts: 6 s.h.
 SOC 4 or equivalent highly recommended; PSY 7, ANTH 3, 137, HIST 162C, or PSC 1 recommended.

Philosophy: 3 s.h.
 PHI 14, 20, or 161 recommended

Language other than English 0-12 s.h.
 Completion of level 4 competence in a language other than English, placement above level 4, or completion of the special language option. *American Sign Language*, REHB 191 and 192, may be used to satisfy this requirement for New College students but do not carry liberal arts and sciences credit (6 s.h.).

Scientific Processes: 6 s.h.
 BIO 4. *Human Biology* required (prerequisite to ELED 129A) Satisfy the Natural Sciences Core requirement by completing one of the following laboratory science courses: BIO 1 & 2; CHEM 3A with 3B; GEOL 1C, 2C; or PHYS 1A with 1B

Mathematical Processes: 3 s.h.
 Any MATH course listed under the Mathematics/Computer Science division of the Hofstra Core. MATH 16 is highly recommended for non-mathematics/non-science majors.

Written Analysis and Expression: 6 s.h.
 ENGL 1-2, and a passing score on the Hofstra English Proficiency Examination (also required for transfer students). Successful completion of the New College Writing Program is a requirement prior to admission to ELED courses for New College students.

Cross-Cultural Appreciation: 3 s.h.
 Any course in the Cross-Cultural division of the Hofstra Core

Transfer students must plan their courses of study carefully with an academic adviser to assure that their programs will fulfill both University and New York State Education Department requirements.

PEDAGOGICAL CORE REQUIREMENTS FOR ELEMENTARY EDUCATION

- ELED 41. *Basic Concepts in Arithmetic and Related Teaching Practices* or a passing score on the Departmental Mathematics Proficiency Examination 0-2 s.h.
- FDED 111. *The American School* or 3 s.h.
 FDED 127. *Introduction to Philosophy of Education*
- SPED 101. *Inclusion: Infants, Toddlers, Pre-schoolers, and K-6 Children* 3 s.h.
- ELED 104A. *Educational Computing Issues, Trends and Practices* 1 s.h.
 111A. *Children's Movement and Rhythmic Activities for the Classroom Teacher* 1 s.h.
 122. *Art in the Elementary School* 1 s.h.

Phase 1. Satisfactory completion of a minimum of 45 s.h. of college-level course work and admission to the Elementary Education Program.

Phase 2.

- ELED 125A. *Child Development in the School Setting, Home and Community* 5 s.h.
 126A. *Interdisciplinary Perspectives on Teaching Social Studies: Elementary Education Grades 1-6* 3 s.h.
 126L. *Social Studies Field Placement Laboratory* 1 s.h.
 127A. *Integrated Teaching of Reading, Writing and Children's Literature: Elementary Education Grades 1-6* 5 s.h.
 127L. *Literacy Field Placement Laboratory* 1 s.h.
 128A. *Integrated Teaching of Mathematics in Early and Childhood Education* 3 s.h.
 128L. *Mathematics Field Placement Laboratory* 1 s.h.
 129A. *Integrated Teaching of Science in Early and Childhood Education* 3 s.h.
 129L. *Science Field Placement Laboratory* 1 s.h.

Phase 3. Admission to Student Teaching

- ELED 121A. *Student Teaching: Elementary Education* 6 s.h.
 123A. *Classroom Perspectives and Issues: (Grades 1-6)* 3 s.h.

Students receiving a grade lower than C- in a professional education course must repeat the course and receive a grade of C- or higher in order to remain in the program.

Student Teaching Prerequisites for the Program

Program Phases 1 and 2 must be completed prior to student teaching. Application forms for student teaching are available in the Office of Field Placement and are accepted by October 1 or March 1 for the succeeding semester. Admission criteria for

student teaching are as follows: (1) a cumulative GPA of 2.75 on overall course work; (2) a GPA of 2.5 or higher in liberal arts and sciences course work; (3) a grade of C– or higher in each ELED course completed and (4) no unresolved INC grades in professional education course work. **See note below regarding teaching certification examinations.

Graduation Requirements

Graduation from this program requires (1) completion of all graduation requirements for the appropriate B.A. degree in the liberal arts and sciences; (2) completion of all course requirements for the co-major in the elementary education program; (3) successful completion of *at least* 129 semester hours. (Military Science courses may not be counted toward this total semester hour requirement.); (4) completion of *at least* 93 semester hours in liberal arts and sciences course work (FDED 111 and 127 may be counted toward this requirement); (5) a minimum GPA of 2.75 in overall course work; (6) a minimum GPA of 2.5 in liberal arts and sciences course work; and (7) an electronic portfolio, illustrating the student's education course work and professional accomplishments.

Teacher Certification Requirements

Upon successful completion of a teacher education program, students will be eligible to apply for the University's recommendation for New York State teacher certification for Initial Certification. Students are required to pass each of the New York State Teacher Certification Examinations: The Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills—Written (ATS-W), and the Content Specialty Test (CST). Students not receiving passing scores on *all three* examinations will not be eligible for certification.

**Note: It is *strongly recommended* that students complete the Liberal Arts and Sciences Test (LAST) of the New York State Teacher Certification Examinations prior to student teaching and the Assessment of Teaching Skills—Written (ATS-W), and the Content Specialty Test (CST) during student teaching. All three NYSTCE's should be completed prior to graduation. Students not receiving passing scores on *all three* examinations will not be eligible for initial certification.

EDUCATION HONOR SOCIETIES, see page 74.

COURSES

In addition to semester notations next to each course, several courses are offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

41. *Basic Concepts in Arithmetic and Related Teaching Practices* 2 s.h.
Fall, Spring, Summer
Designed to aid early childhood and elementary teachers in understanding fundamental concepts of arithmetic and teaching techniques which integrate and coordinate such knowledge. Pass/D+/D/Fail grade only.
- 104A. *Educational Computing Issues, Trends and Practices* 1 s.h.
Fall, Spring, Summer
The elementary classroom teacher is called upon to use new technologies to facilitate the learning process. Provides a foundation in the theory and practice of such technology. Topics explored include technology and learning patterns, educational hardware and software, evaluation techniques, information processing and communication. Hands-on experience is provided with a variety of educational software. Students explore implementation models for computers across the elementary curriculum.
- 111A. *Children's Movement and Rhythmic Activities for the Classroom Teacher* 1 s.h.
Fall, January, Spring
A study of methodologies for the development of rhythmic activities, aesthetic and creative abilities for children grades 1-6.

Consideration given to multicultural content and the special learning needs of diverse student populations.

- 111B. *Young Children's Movement, Music, Rhythmic Activities and Play for the Classroom* 1 s.h.
Fall, Spring, Summer
The development of movement, rhythmic activities, music, aesthetic and creative abilities from birth through 8 years is studied. The role of play as a learning condition is integrated. Consideration is given to multicultural content and the special learning needs of diverse populations.
121. *Student Teaching* 6 s.h.
Fall, Spring
Full-time student teaching in cooperating schools with direction and supervision from University supervisors. Students have two placements during the semester: one on the primary level (PreK-3) and one on the elementary level (4-6). Weekly seminars are provided. Must be taken concurrently with ELED 123. Admission by application on October 1 or March 1 to the Office of Field Placement and interview. Prerequisites: ELED 104A, 111A, 122, 125, 126, 127, 128, 129. Pass/D+/D/Fail grade only. Credit given this course or 121A, not both.
- 121A. *Student Teaching: Elementary Education* 6 s.h.
Fall, Spring
Full-time student teaching in cooperating schools with direct supervision from University supervisors. Students have two placements during the semester: one in grades 1-3 and one in grades 4-6. Weekly seminars are required, including child abuse and maltreatment; child abduction; substance abuse prevention; safety education, and fire and arson prevention. Must be taken concurrently with ELED 123A. Admission by application by October 1 or March 1 to the Office of Field Placement and interview. Prerequisites: see Elementary Education Undergraduate Program description, pg. 163. Pass/D+/D/Fail grade only. Credit given for this course or 121, not both.
122. *Art in the Elementary School* 1 s.h.
Fall, January, Spring
Course presents methods of integrating the creative arts into the elementary school curriculum. Explore art forms that engage students on many levels as well as clarify and enhance required academic curriculum. Subjects examined include perceptual stages of development, creativity, multiple intelligence theory, adaptation for included children with handicapping conditions, and curriculum mapping. Art forms include painting, drawing, poetry, sculpture, and collage. There is a material fee of \$10.
123. *Classroom Interaction Analysis* 3 s.h.
Fall, Spring
Systems of classroom interaction are studied. Students engage in objective self-study of their own teaching behavior. Must be taken concurrently with ELED 121. (Formerly *Analysis of Teaching Behavior*.) Credit given for this course or 123A, not both.
- 123A. *Classroom Perspectives and Issues: Elementary Education (Grades 1-6)* 3 s.h.
Fall, Spring
Systems of classroom interaction are studied. Students engage in self-study of their own teaching behavior while engaging in analysis of macro- and micro-issues concerning classroom structures, equity, diversity, inclusion, assessment, and integration of curriculum. Includes development of classroom management techniques, provision for aesthetic education, development of cognitive abilities, home-school relationships, and integration of computer technology. Issues of health, nutrition, and safety are studied. Must be taken concurrently with ELED 121A. Credit given for this course or 123, not both.
125. *Child Development in the School Setting, Home and Community* 6 s.h.
Fall, Spring
Study of children's development as active learners in the school setting is related to the social context of schooling. Issues of

diverse sociocultural family and community influences on children's learning are explored. Individual variations, special learning needs, motivation, and discipline are examined as well as issues in evaluation and assessment. Students must allow four hours a week for public prekindergarten or registered nursery school observations and reflective participation under close clinical supervision. Students must provide transportation to and from assigned schools. Prerequisites: admission to the program in elementary and early childhood education and permission of instructor. Credit given for this course or 125A, not both.

125A. *Child Development in the School Setting, Home and Community* 5 s.h.

Fall, Spring

Study of children's development as active learners in the school setting is related to the social context of schooling. Issues of diverse sociocultural family, community, health, nutrition and safety influences on children's learning are explored. Individual variations, special learning needs, motivation, and discipline are examined as well as issues in evaluation and assessment. Fifty clock hours of reflective participation and observation in public pre-kindergarten or registered nursery school under close clinical supervision are required. Prerequisites: admission to the program in Elementary Education and permission of the instructor. Credit given for this course or 125, not both.

126. *Interdisciplinary Perspectives on Teaching Social Studies* 4 s.h.

Fall, Spring

Interdisciplinary relationships between the social sciences and other disciplines are examined from their different conceptual frameworks and methods of inquiry, as well as the study of self in relation to social groups. Multicultural and global education, controversies and critical issues, sociodrama, cooperative group processes and other social models of teaching are considered. Developing appropriate experiences for children with handicapping conditions in the mainstream are studied. Students develop a repertoire of curriculum experiences and materials, and develop extended curriculum projects as well as the ability to facilitate children's social development and the building of a class community. Students participate in the reflective study of their teaching under close clinical supervision in primary grades. Students must provide transportation to and from assigned placements. Prerequisites: ELED 125, including admission to the program in Elementary and Early Childhood Education, satisfactory completion of departmental writing examination, and core prerequisite in history. Corequisites: ELED 127 and the corresponding laboratory section of ELED 126. Credit given for this course or 126A, not both.

126A. *Interdisciplinary Perspectives on Teaching Social Studies: Elementary Education Grades 1-6* 3 s.h.

Fall, Spring

Interdisciplinary relationships between the social sciences and other disciplines are examined from their different conceptual frameworks and methods of inquiry, as well as the study of self in relation to social groups and careers. Related issues of health, nutrition, and safety are studied. Multicultural and global education, controversies and critical issues, sociodrama, cooperative group processes and other social models of teaching are considered. Developing appropriate experiences for children with disabilities in inclusion settings are studied. Students develop a repertoire of curriculum projects as well as the ability to facilitate children's social development and the building of a class community. Students participate in the reflective study of their teaching under close clinical supervision in grades 1-3. Prerequisites: ELED 125A, including admission to the program in Elementary Education. Completion of 3 s.h. of American History, Western Civilization, Global History, or the equivalent. Successful completion of Hofstra University English Proficiency Exam or equivalent. Corequisite: ELED 127A and the corresponding laboratory section of ELED 126L. Credit given for this course or 126, not both.

126L. *Social Studies Field Placement Laboratory* 1 s.h.

Fall, Spring

Students participate in the reflective study of their social studies teaching under close clinical supervision in grades 1-3 for a minimum of 45 clock hours. Corequisite: ELED 126A and 127A. Pass/D+/D/Fail grade only.

127. *Integrated Teaching of Reading, Writing, and Children's Literature* 6 s.h.

Fall, Spring

Selection, design and organization of rationales, strategies, and materials for the integrated teaching of reading, writing, and children's literature appropriate for diverse cultural groups and individual learning styles and special learning needs are studied. Students develop a repertoire of egalitarian materials and methods for use with bilingual as well as monolingual English speakers. Students participate in the reflective study of their teaching under close clinical supervision in primary grades. Students must provide transportation to and from assigned placements. Prerequisites: admission to the ELED program; ELED 125 and satisfactory completion of departmental writing examination. Corequisite: ELED 126 and the corresponding laboratory section of ELED 126. Credit given for this course or 127A, not both.

127A. *Integrated Teaching of Reading, Writing and Children's Literature: Elementary Education Grades 1-6* 5 s.h.

Fall, Spring

Selection, design and organization of rationales, strategies, and materials for the integrated teaching of reading, writing, and children's literature appropriate for diverse cultural groups and individual learning styles and special learning needs are studied. Students develop a repertoire of egalitarian materials and methods for use with bilingual as well as monolingual English speakers. Students participate in the reflective study of their teaching under close clinical supervision in grades 1-3. Prerequisites: ELED 125A, including admission to the program in Elementary Education. Corequisites: ELED 126A and the corresponding laboratory section of ELED 127L. Credit given for this course or 127, not both.

127L. *Literacy Field Placement Laboratory* 1 s.h.

Fall, Spring

Students participate in the reflective study of their literacy teaching under close clinical supervision in grades 1-3 for a minimum of 45 clock hours. Students must provide transportation to and from assigned placements. Corequisite with ELED 127A and 126A. Pass/D+/D/Fail grade only.

128. *Integrated Teaching of Mathematics* 4 s.h.

Fall, Spring

Examination of the curriculum, goals, methods and materials for teaching mathematics in the elementary school. Focus on methods for making mathematics meaningful to children by promoting an active learning process. Attention also given to methods for teaching mathematics to children with special needs and for whom English is a second language. Students participate in the reflective study of their teaching under close clinical supervision in intermediate grades. Students must provide transportation to and from assigned placements. Prerequisites: completion of the mathematics core course requirement, and ELED 41 (may be exempted by passing the departmental mathematics proficiency examination). Corequisite: ELED 129 and the corresponding laboratory section of ELED 128. Credit given for this course or 128A, not both.

128A. *Integrated Teaching of Mathematics in Early and Childhood Education* 3 s.h.

Fall, Spring

Examination of the curriculum, goals, methods and materials for teaching mathematics PreK-6. Focus on methods for making mathematics meaningful to children by promoting an active learning process. Attention also given to methods for teaching mathematics to children with special needs and for whom English is a second language. Students participate in the reflec-

tive study of their teaching under close clinical supervision. Prerequisites: ELED 134, 135, 136, or ELED 125A, 126A, 127A, including admission to the programs in Early Childhood or Elementary Education. Completion of the mathematics core course requirement. Satisfactory completion of ELED 41 or passing score on the departmental mathematics competency test. Corequisite: 128E or 128L and 129A. Credit given for this course or 128, not both.

128E. *Mathematics Field Placement Laboratory* 1 s.h.
Fall, Spring

Students participate in the reflective study of their mathematics teaching under close clinical supervision in grades 1-2 for a minimum of 45 clock hours. Corequisite: ELED 128A and 129A. Pass/D+/D/Fail grade only.

128L. *Mathematics Field Placement Laboratory* 1 s.h.
Fall, Spring

Students participate in the reflective study of their mathematics teaching under close clinical supervision in grades 4-6 for a minimum of 45 clock hours. Students must provide transportation to and from assigned placements. Corequisite with ELED 128A and 129A. Pass/D+/D/Fail grade only.

129. *Integrated Teaching of Science* 4 s.h.
Fall, Spring

Introduces the student to the purposes, selection organization and guidance of science experiences suitable for children. Explores the connection between science and technology with respect to contemporary themes in environmental science and communication. Emphasis on the development of skills in the construction and administration of science and technology investigations for children. Methods of instruction that address the needs of children with learning differences and diverse language backgrounds are integrated in the course. Students participate in the reflective study of their teaching under close clinical supervision in intermediate grades. Prerequisites: completion of the science core course requirement; ELED 125, 126, 127. Corequisites: ELED 128 and the corresponding laboratory section of ELED 128. There is a material fee of \$10. Credit given for this course or 129A, not both

129A. *Integrated Teaching of Science in Early and Childhood Education* 3 s.h.

Fall, Spring
Introduces students to the purposes, selection, organization, and guidance of science experiences suitable for PreK-6 children. Explores the connection between science and technology with respect to contemporary themes in environmental science and communication. Emphasis on the development of skills in the construction and administration of science and technology investigations for children. Methods of instruction that address the needs of children with special learning needs and diverse language backgrounds are integrated. Students participate in the reflective study of their teaching under close clinical supervision. Prerequisites: completion of the science core course requirement; ELED 134, 135, 136 or ELED 125A, 126A, 127A. Corequisite: ELED 128A and 129E. There is a material fee of \$10. Credit given for this course or 129, not both.

129E. *Science Field Placement Laboratory* 1 s.h.
Fall, Spring

Students participate in the reflective study of their science teaching under close clinical supervision in grades 1-2 for a minimum of 45 clock hours. Corequisite: ELED 128A and 129A. Pass/D+/D/Fail grade only.

129L. *Science Field Placement Laboratory* 1 s.h.
Fall, Spring

Students participate in the reflective study of their science teaching under close clinical supervision in grades 4-6 for a minimum of 45 clock hours. Students must provide transportation to and from assigned placements. Corequisite with ELED 128A and 129A. Pass/D+/D/Fail grade only.

134. *Infant, Toddler, Preschool, and Primary Child Development in the Group Settings, Home, and Community* 5 s.h.

Fall, Spring

Study of young children's development as active learners in the school setting is related to the social context of schooling. Issues of diverse sociocultural family, community, and health influences on learning are explored. Individual variations, special learning needs, motivation, and discipline are examined as well as issues in evaluation and assessment. Student must allow five hours a week for public prekindergarten or registered nursery school observations and reflective participation under close clinical supervision. Students must provide transportation to and from assigned schools. Prerequisite: admission to the program in early childhood education and permission of the instructor.

135. *Interdisciplinary Teaching of Social Studies: Early Childhood* 3 s.h.

Fall, Spring

Interdisciplinary relationships between the social sciences and other disciplines are examined from their different conceptual frameworks and methods of inquiry, as well as the study of self in relation to social groups. Multi-cultural and global education, controversies and critical issues, socio-drama, play, cooperative group processes and other social models of teaching are considered. Developing appropriate experiences for children with disabilities in inclusion settings are studied. Environmental design and curricular planning are studied. Students participate in reflective study of their teaching with close clinical supervision in primary grades. Students must provide transportation to and from assigned placements. Prerequisites: ELED 134, including admission to the program in Early Childhood Education, satisfactory completion of the English Proficiency Examination, and satisfactory completion of a college level history course (American History, Western Civilization, Global History, or the equivalent) prior to admission to ELED 135. Corequisites: ELED 135E and ELED 136.

135E. *Social Studies Field Placement Laboratory* 1 s.h.
Fall, Spring

Students participate in the reflective study of their social studies teaching under close clinical supervision in grades 1-2 for a minimum of 45 clock hours. Corequisite: ELED 135 and 136. Pass/D+/D/Fail grade only.

136. *Integrated Teaching of Emergent Reading, Writing, and Children's Literature: Early Childhood Education* 5 s.h.

Fall, Spring

Selection, design and organization of rationales, strategies, and materials for the integrated teaching of speaking, reading, writing, and children's literature appropriate for diverse cultural groups, individual learning styles, and the needs of young children with disabilities in inclusion settings are studied. Family literacy and multicultural materials are studied. Students develop a repertoire of egalitarian materials and methods, and study environmental designs for use with bilingual as well as monolingual English speakers. Students participate in the reflective study of their teaching under close clinical supervision in primary grades. Students must provide transportation to and from assigned placements. Prerequisites: Admission to the Early Childhood program; ELED 134 and satisfactory completion of the English Proficiency Examination. Successful completion of the New College Writing Program is a prerequisite to admission for New College students. Corequisite: ELED 135 and 136E.

136E. *Literacy Field Placement Laboratory* 1 s.h.
Fall, Spring

Students participate in the reflective study of their literacy teaching under close clinical supervision in grades 1-3 for a minimum of 45 clock hours. Corequisite: ELED 135 and 136. Pass/D+/D/Fail grade only.

137. *Student Teaching: Early Childhood* 6 s.h.
Fall, Spring

Full-time student teaching in cooperating schools with direct supervision from University supervisors. Students have two placements during the semester: one in kindergarten and one in grades 1-2. Weekly seminars are required, including child abuse and maltreatment; child abduction; substance abuse prevention; safety education and fire and arson prevention. Must be taken concurrently with ELED 138. Admission by application by October 1 or March 1 to the Office of Field Placement and interview. Pass/D+/D/Fail grade only. Prerequisites-Student Teaching: Program Phases 1 and 2 must be completed prior to student teaching. Application forms for student teaching are available in the Field Placement Office and are accepted by October 1 or March 1 for the succeeding semester. Admission criteria are as follows: 1) a cumulative GPA of 2.75 on overall course work; 2) no grades lower than C- or unresolved INC grades in professional education course work, and 3) a minimum GPA of 2.5 on liberal arts and sciences course work. Completion of the Liberal Arts and Science Test (LAST) of the New York State Certification Examinations is strongly recommended prior to student teaching.

138. *Reflective Inquiry and Issues in Early Childhood Curriculum Design and Development* 3 s.h.
Fall, Spring

Systems of integrated early child-curriculum development, inquiry, classroom interaction, environmental design, and assessment are studied. Students engage in reflective study of their own teaching behavior. Includes an analysis of macro- and micro-issues concerning classroom structures, environmental design, equity, diversity, inclusion, assessment and the integration of curriculum. Development of classroom management and governance strategies, provision for aesthetic education, play as a condition for learning, health, nutrition, safety, development of students' cognitive abilities, career aspirations, home-school relationships, and the integration of computer technology. Must be taken concurrently with ELED 137.

139. *Dual Program Student Teaching: Grades 4-6* 2 s.h.
January

Practicum course. Candidates for the dual program student teach for a minimum of twenty days in grades 4-6 with direct supervision by University supervisor. Weekly seminars are required. Must be taken concurrently with ELED 140. Prerequisites: ELED 104A, 111B, 122, 134, 135, 136, 128A, 128L, 129A, 129L, SPED 101. Students must earn a minimum grade of C- in each course. Admission by application to the Office of Field Placement by October 1 and interview. Pass/D+/D/Fail grade only.

140. *Dual Program Classroom Perspectives and Issues* 1 s.h.
January

Systems of intermediate grade (4-6) classroom interaction are studied. Includes integration of curriculum, assessment, classroom management techniques, provision for aesthetic education, development of cognitive abilities and home-school relationships. Must be taken concurrently with ELED 139. Prerequisites: ELED 104A, 111B, 122, 134, 135, 136, 128A, 128L, 129A, 129L, SPED 101. Student must earn a minimum grade of C- in each course. Admission by application by October 1.

151, 152. *Special Readings Seminar* 1-3 s.h. each
Fall, Spring, Summer

Investigations and reports on educational topics adapted to the student's program and more flexibility in course work. For undergraduates only. Prerequisite: permission of department chairperson.

180 through 189, A-Z. *Workshops* 1-3 s.h. each
Summer

Designed to meet the needs of specific groups of students or faculties of individual schools who want help in the solution of curricular or other school problems.

As individual subjects are selected, each is assigned a letter (A-Z) and added to the course number. Any course may be taken a number of times so long as there is a different letter designation each time it is taken.

191. *Workshop: Methods and Materials* 6 s.h.
Summer

Cooperative work on problems related to school situations. Demonstrations and participation in an elementary classroom. Admission by permission of instructor.

193. *Workshop: Early Childhood Education* 6 s.h.
Summer

Supervised participation and systematic observation in demonstration kindergarten and preschool programs supplemented by lectures, selected readings and discussion. Designed also to acquaint experienced and prospective teachers with the current findings about the intellectual and emotional development of young children as they relate to curriculum design and implementation in early childhood education.

Engineering (ENGG)

Professor Rabbany, *Chairperson*

Professors Alvarez, Burghardt, Weissman; Associate Professors Agnone, Caputi, Forsberg, Jensen, Kwong, Rooney; Assistant Professors Ghorayeb, Hunter, Puerzer; Director of Freshman Engineering Hakola.

TECHNOLOGY AND PUBLIC POLICY courses are listed alphabetically.

THE JEAN NERKEN DISTINGUISHED PROFESSORSHIP IN ENGINEERING is held by Dr. M. David Burghardt, Professor of Engineering.

MISSION STATEMENT

The Department of Engineering at Hofstra University offers ABET-accredited degree programs leading to a Bachelor of Engineering in Engineering Science, a Bachelor of Science in Electrical Engineering, and a Bachelor of Science in Mechanical Engineering. A new Bachelor of Science in Computer Engineering was started in fall 2002. In addition, it offers smaller interdisciplinary degree programs, not seeking ABET accreditation, leading to a Bachelor of Science in Industrial Engineering and a Bachelor of Arts in Engineering Science.

Since all degrees are offered under the aegis of a single department, the organizational structure fosters collegiality among faculty of different programs and ensures that all students are exposed to a variety of engineering disciplinary perspectives. The knowledge base encompassed by engineering is constantly expanding, but the fundamental skills and aptitudes which a four year undergraduate program can hope to impart to graduates remain the same, regardless of time or of specific degree. They include a solid grounding in mathematics as a language to express scientific laws, in applied physics as represented primarily in the engineering sciences, in engineering design integrated throughout the curriculum but especially demonstrated through participation in capstone team projects, and in a well-chosen variety of social sciences and humanities.

Technological advances generated by the engineering profession have foreseen and unforeseen effects on human culture and civilization. The broadly educated Hofstra engineering graduate will mirror the multi-faceted engineer/builder envisioned in classical times by Vitruvius, and will therefore be best situated to assess the consequences of the societal changes constantly being wrought by the profession.

DEPARTMENTAL OBJECTIVES

While adhering to the general philosophy outlined above, each degree program which seeks ABET accreditation is committed to

ensuring that its graduates exhibit a range of abilities indicative of a successful member of the engineering community. These include:

- a) an ability to apply knowledge of mathematics, science, and engineering
- b) an ability to design and conduct experiments, as well as to analyze and interpret data
- c) an ability to design a system, component, or process to meet desired needs
- d) an ability to function on multi-disciplinary teams
- e) an ability to identify, formulate, and solve engineering problems
- f) an understanding of professional and ethical responsibility
- g) an ability to communicate effectively
- h) the broad education necessary to understand the impact of engineering solutions in a global and societal context
- i) recognition of the need for, and an ability to engage in life-long learning
- j) a knowledge of contemporary issues
- k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Students matriculate in an ambience of small class size, excellent student-faculty interaction, and easy access to all laboratory facilities for research and design projects. All students, part-time as well as full-time, are assigned a faculty adviser in their general field of interest, and may choose from a range of engineering and science electives to build a foundation for the engineering objective of their choice. For many the goal will be graduate study in a specialized area of engineering such as civil, electrical, mechanical or biomedical; for others, a position in industrial or government research, development and design.

A **MINOR IN ENGINEERING** consists of the successful completion of 18 semester hours in engineering courses, excluding ENGG 4, 10 and 149, at least 6 hours in residence, with grades of C or better.

ROTC scholarship engineering majors, who must take additional courses in Military Science, may be funded for a total of five years while completing their engineering degree.

PROGRAMS

B.E. SPECIALIZATION IN ENGINEERING SCIENCE

Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

PROGRAM EDUCATIONAL OBJECTIVES

This program reflects the need within a broad-based engineering curriculum, for a diversity of offerings reflecting the diversity of careers in the engineering field today. Engineering today encompasses many new technologies, but the core educational requirements remain a thorough grounding in mathematics, physical sciences, engineering sciences and design. The Engineering Science degree then allows students to specialize in one of three options: biomedical, civil, or environmental. All three options integrate design throughout the curriculum, beginning with the first year, and culminating in a year-long major senior-level design project. Consequently graduates of the program are well prepared to do analytic work and to participate as design team members in engineering projects. The options guarantee a specificity of expertise within the Engineering Science program. They do so through 25 units of directed technical electives as outlined below under each of the three headings. A preponderance of biomedical option graduates may therefore be expected to pursue advanced studies in biomedical engineering or in some cases to enter medical school. On the other hand, the majority of civil or environmental option graduates will be expected to enter industry, with or without pursuing advanced degrees. Professional registration is highly important in the latter two fields, and so, all graduates of the civil option and the environmental option are required to take the Engineering Fundamentals Examination (but not necessarily to pass it) prior to the completion of the

degree program. The eleven generic indicators of achievement listed under Department of Engineering objectives apply specifically to graduates of each option within the Engineering Science degree program, as a measure of the program's effectiveness in meeting its stated objectives.

Biomedical Option: Biomedical engineering or bioengineering is designed to bridge the gap between the life sciences and physical sciences by applying engineering concepts, methods and techniques to biology and medicine. An understanding of fundamental physiological processes using engineering methodology requires a broad background in basic engineering, sciences and mathematics. Two emphases (biomechanics and bioelectricity) are available to the students, differing from each other by five courses. In the biomechanics area required courses include ENGG 26, 114, 115, 163 and 169 or 170. In the bioelectricity area these courses are replaced by ENGG 32A, 32B, 33, 104, and 192. Technical electives for all biomedical option students include: BIO 1, 144, ENGG 166B, 81, 182, 183, 187, CHEM 131A, 132A, 162. Further technical electives for those in the biomechanics area include: ENGG 116, 129, 130, 131, while students in the bioelectricity area choose further technical electives from: ENGG 36, 176, 177, 180.

Professor Rabbany, *Adviser*

Civil Option: Civil engineering shares with military engineering the distinction of being the earliest of the engineering disciplines. Today's civil engineer is concerned with a broad spectrum of problems relating to structures and the infrastructures of modern society. The civil option provides a thorough preparation and professional training in the fundamentals of engineering and related fields with a major thrust in structural analysis and design. All civil option degree candidates must take the Engineering Fundamentals Examination prior to graduation. Technical electives include: ENGG 47, 62, 129, 131, 132, 134, 135, 136, 147.

Professor Alvarez, *Adviser*

Environmental Option: Environmental engineering applies a range of engineering disciplines to both natural environmental systems and treatment of water, air and land pollution. A traditional curriculum emphasizes the processes and system designs for water production, quality and treatment. Emphasis is also placed on the social, economic, political and legal aspects important for engineers working with the environment. All environmental option degree candidates must take the Engineering Fundamentals Examination prior to graduation. Technical electives include: ENGG 47, 60, 62, 117, 130, 132, 135, 136, 147; TPP 115; CHEM 131A, 132A, 185.

Assistant Professor Hunter, *Adviser*

Candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 137 semester hours, excluding Military Science, completed at Hofstra.
2. At least 65 semester hours must be completed in the liberal arts. No course in the Department of Engineering may count toward this requirement except for ENGG 149.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. The following general and major requirements:
ENGL 1-2 or placement examination*; 6 hours in literature, literature in translation or comparative literature; 15 hours in humanities or social science electives**; the two literature courses must be chosen from core courses in CLL, ENGL,

*If this requirement is fulfilled by passing the placement examination, 6 semester hours in the humanities or social sciences should be taken with adviser's approval.

**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.

FRLT, JW ST, LIT or SPLT in the humanities division under the appreciation and analysis heading. The 15 credits of social science and humanities electives must include SPCM 1 or 7, one core course in behavioral social sciences and one core course in history and philosophy in social sciences. Students transferring in with previous social science/humanities credits may use them in place of core requirements in the same category as the transferred credits.
 MATH 19, 20, 29, 131, 143 and 144 or 147; CHEM 3A, 3B, 4A; PHYS 11A & 12A, 11B;
 ENGG 1, 9A, 10, 25, 26 or 33, 27, 28, 30, 34, 100, 113, 114 or 104, 115 or 32A, 143A, 143G, 149, 160, 163 or 32B, 169 or 170 or 192; 25 hours in technical electives. Courses may not be taken on a Pass/D+/D/Fail basis.

Other elective groupings are available subject to the needs of the individual student.

Course selection is made in conference and with the approval of a faculty adviser.

A cumulative average of C or better is required in the following courses: ENGG 25, 26 or 33, 27, 28, 30, 100, 113, 115 or 32A; a cumulative average of C or better is required in all engineering courses. Reflecting the fact that not all full-time students can and do adhere to a four year time frame for degree completion, the suggested sequence below shows a possible alignment of courses within that compass.

FULL-TIME STUDENTS—137 s.h.
 SUGGESTED FOUR-YEAR SEQUENCE

FIRST YEAR		
	<i>1st Sem.</i>	<i>2nd Sem.</i>
MATH 19, 20	4	4
ENGG 1, 9A, 10	4	3
ENGL 1 or placement examination*	3	-
CHEM 3A, 3B, 4A	4	3
PHYS 11A, 11B	-	5
	<u>15</u>	<u>15</u>
SECOND YEAR		
ENGL 2 or placement examination*	3	-
ENGG 25, 28	3	3
27	-	3
30	-	3
MATH 29, 131	4	3
PHYS 12A	4	-
Literature or literature in translation	3	3
Social science or humanities elective**	-	3
	<u>17</u>	<u>18</u>
THIRD YEAR		
ENGG 26 or 33	3	-
34	1	-
113, 115 or 32A	3	3
160, 163 or 32B	2	1
MATH 143, 144 or 147	3	3
TPP 112	-	3
Social science or humanities electives**	-	3
Technical electives	<u>6</u>	<u>6</u>
	<u>18</u>	<u>19</u>
FOURTH YEAR		
ENGG 100	3	-
114 or 104	-	3
143G	-	3
149	3	-
143A	3	-
169 or 170 or 192	1	-
Social science or humanities electives**	-	6
Technical electives	<u>7</u>	<u>6</u>
	<u>17</u>	<u>18</u>

PART-TIME STUDENTS—135 s.h.

Part-time students follow the same curriculum as listed under the full-time program of study, with the exception of ENGG 9A. Candidates for graduation must fulfill all requirements listed under the individual program. The B.E. Specialization in Engineering Science requires 135 semester hours of part-time study.

B.S. SPECIALIZATION IN INDUSTRIAL ENGINEERING

Industrial engineering contributes to the management decision-making process. It is concerned with the optimal utilization of integrated systems of people, methods, materials, machines and energy to achieve organizational goals. In the application of principles and methods of engineering analysis and design, it is distinguished from other engineering disciplines in its concern with problems which involve human effort and energy, production systems, economy in the use of money, materials and time, and a high utilization of the social sciences.

Using the scientific method, industrial engineers establish factual information from which alternatives are defined, problems recognized and solved. In their concern for the design, improvement and control of systems, they collect, analyze, arrange and statistically examine data. They introduce new techniques and tools into the organization and into the decision-making process.

Areas of specialty associated with industrial engineering are administrative engineering, production and inventory control, automation, plant location and layout, methods engineering, quality control, data processing, operations research, cost forecasting and control.

Assistant Professor Puerzer, *Adviser*

Candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 137 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra. Military Science may not be counted toward this total semester hour requirement.
2. At least 62 semester hours must be completed in the liberal arts. No course in the Department of Engineering may count toward this requirement except for ENGG 101, 149, and 185.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. The following requirements:

ENGL 1-2 or placement examination*; PSY 1, 33; ECO 1; 15 hours in humanities or social science electives**; the 15 credits of social science and humanities must include 6 credits in the humanities, of which 3 must be from the list of core courses in CLL, ENGL, FRLT, JW ST, LIT or SPLT. The other 9 credits must include SPCM 1 or 7, one core course in behavioral social sciences and one core course in history and philosophy in social sciences. Students transferring in with previous social science/humanities credits may use them in place of core requirements in the same category as the transferred credits.
 MATH 19, 20, 29, 131; CHEM 3A, 3B, 4A; PHYS 11A & 12A, 11B
 ACCT 101; CSC 132, 187; MGT 101, 127, 142;
 ENGG 1, 9A, 10, 25, 26, 27, 28, 30, 33, 34, 35, 100, 101, 113, 119, 149, 156, 158, 160, 185, 186, 188. Courses may not be taken on a Pass/D+/D/Fail basis.

A cumulative average of C or better is required in the following courses: ENGG 25, 26, 27, 28, 30, 35, 100 and 113; a cumulative average of C or better is required in all engineering courses. Reflecting the fact that not all full-time students can and do

*If this requirement is fulfilled by passing the placement examination, 6 semester hours in the humanities or social sciences should be taken with adviser's approval.

**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.

adhere to a four year time frame for degree completion, the suggested sequence below shows a possible alignment of courses within that compass.

FULL-TIME STUDENTS—137 s.h.
SUGGESTED FOUR-YEAR SEQUENCE

FIRST YEAR		
	1st Sem.	2nd Sem.
MATH 19, 20	4	4
ENGG 9A, 1, 10	4	3
ENGL 1 or placement examination*	3	-
CHEM 3A, 3B, 4A	4	3
PHYS 11A, 11B	-	5
	<hr/> 15	<hr/> 15
SECOND YEAR		
MATH 29, 131	4	3
ENGG 25, 26	3	3
ENGL 2 or placement examination*	3	-
PHYS 12A	4	-
ENGG 28	-	3
30	-	3
ECO 1	-	3
PSY 1, 33	3	3
	<hr/> 17	<hr/> 18
THIRD YEAR		
CSC 187, 132	3	3
ENGG 33, 35	3	3
34	1	-
27, 101	3	3
185, 186	3	3
188	-	3
MGT 101	-	3
ACCT 101	3	-
Social science or humanities elective**	3	-
	<hr/> 19	<hr/> 18
FOURTH YEAR		
ENGG 156, 158	1	2
149, 100	3	3
113, 119	3	3
160	2	-
MGT 127, 142	3	3
Social science or humanities electives**	6	6
	<hr/> 18	<hr/> 17

PART-TIME STUDENTS—135 s.h.

Part-time students follow the same curriculum as listed under the full-time program of study, with the exception of ENGG 9A. Candidates for graduation must fulfill all requirements listed under the individual program. The B.S. Specialization in Industrial Engineering requires 135 semester hours of part-time study.

B.A. SPECIALIZATION IN ENGINEERING SCIENCE

This program is designed for those students who wish to combine elements of a fundamental engineering program with those of a broad liberal arts program. In addition to meeting the degree requirements for the B.A., students are required to earn a cumulative average of C or better in engineering courses. Students pursuing this degree must choose either the Biomedical Engineering Option or the Production and Manufacturing Option.

See complete B.A. requirements, page 79.

Biomedical Engineering Option

One option of this degree has been created for those students whose career goals are directed toward medicine, but with a strong analytical element provided by engineering coursework. Bioengineering courses apply engineering methods to biomedicine, and ensure that successful candidates for this degree option have both the broad liberal arts background the B.A. degree offers, and the specialized skills that the prospective scientists and practitioners in the medical field need. Reflecting the fact that not all full-time students can and do adhere to a four year time frame for degree completion, the suggested sequence below shows a possible alignment of courses within that compass.

Professor Rabbany, *Adviser*.

**B.A. Specialization in Engineering Science
With a Biomedical Engineering Option**

FULL-TIME STUDENTS—126 s.h.
SUGGESTED FOUR-YEAR SEQUENCE

FIRST YEAR		
	1st Sem.	2nd Sem.
MATH 19, 20	4	4
ENGG 1, 9A, 10	4	3
ENGL 1 or placement examination†	3	-
CHEM 3A, 3B, 4A, 4B	4	4
PHYS 11A, 11B	-	5
	<hr/> 15	<hr/> 16
SECOND YEAR		
ENGG 25, 81	6	-
27, 28	-	6
BIO 1	-	4
MATH 29	4	-
PHYS 12A, 12B	5	-
Social Science Core elective	-	3
ENGL 2 or placement examination†	-	3
	<hr/> 15	<hr/> 16
THIRD YEAR		
ENGG 30, 34, 182	3	4
113	-	3
Humanities Core	6	3
Language requirement†	3	3
CHEM 131A, 131B	4	-
132A, 132B	-	4
	<hr/> 16	<hr/> 17
FOURTH YEAR		
ENGG 166B, 183	3	3
BIO 144	4	-
Language requirement†	3	3
Social Science Core, Cross-Cultural Core	6	3
Technical electives	-	6
	<hr/> 16	<hr/> 15

Production and Manufacturing Option

A special option of this degree has been created for those students whose career goals are directed toward business administration, especially in manufacturing or production. A career path in this situation requires someone with technical ability and eventually an M.B.A. degree. By combining the B.A. Specialization in Engineering Science with the following business and liberal arts courses, the student will meet Hofstra's B.A. degree requirements and be knowledgeable about technical matters the student will ultimately be responsible for in a manufacturing environment. Reflecting the fact that not all full-time students can and do adhere to a four year time frame for degree completion, the suggested sequence below shows a possible alignment of courses within that compass.

*If this requirement is fulfilled by passing the placement examination, 6 semester hours in the humanities or social sciences should be taken with adviser's approval.

**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.

†For B.A. requirements, see page 79.

**B.A. Specialization in Engineering Science
With a Production and Manufacturing Option**

FULL-TIME STUDENTS—134 s.h.
SUGGESTED FOUR-YEAR SEQUENCE

FIRST YEAR		
	<i>1st Sem.</i>	<i>2nd Sem.</i>
MATH 19, 20	4	4
ENGG 1, 9A, 10	4	3
ENGL 1-2 or placement examination†	3	3
CHEM 3A, 3B, 4A	4	3
PHYS 11A, 11B	-	5
	<hr/>	<hr/>
	15	18
SECOND YEAR		
ENGG 25, 26	3	3
28	-	3
32A, 32B	-	4
MATH 29, 131	4	3
PHYS 12A	4	-
SPCM 1, ECO 1	3	3
Social Science Core elective	3	-
	<hr/>	<hr/>
	17	16
THIRD YEAR		
ENGG 30, 36	3	3
113, 160	3	2
Literature Core or literature in translation††	3	3
Language requirement†	3	3
ACCT 101	3	-
BLAW 20	-	3
FIN 101	3	-
MGT 101	-	3
	<hr/>	<hr/>
	18	17
FOURTH YEAR		
ENGG 100, 119	3	3
27, 149	3	3
Language requirement†	3	3
MKT 101, 124	3	3
Social Science Core, Cross-Cultural Core	6	3
	<hr/>	<hr/>
	18	15

**B.S. SPECIALIZATION IN
ELECTRICAL ENGINEERING
MECHANICAL ENGINEERING**

Candidates for graduation with the B.S. degree in these areas must fulfill the following requirements:

1. The successful completion of at least 137 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra. Military Science may not be counted toward this total semester hour requirement.
2. At least 65 semester hours must be completed in the liberal arts. No course in the Department of Engineering may count toward this requirement except for ENGG 101, 149, and 185.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. The general and major requirements as listed under the programs below. Courses may not be taken on the Pass/D+/D/Fail basis.

B.S. SPECIALIZATION IN ELECTRICAL ENGINEERING

Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

PROGRAM EDUCATIONAL OBJECTIVES

This program is intended for students who wish intensive study at the undergraduate level to develop proficiency in the fields of electrical and computer engineering. The curriculum provides a broad foundation in engineering, mathematics, physics and liberal arts. The broad range of Hofstra University resources in the humanities and social sciences make the liberal arts component especially enlightening.

Students will develop analytical, computer and applied skills which will enable them to analyze, design and test engineering systems, processes and components. Graduates will be acquainted with various areas of electrical engineering such as applied electronics, digital devices and systems, electromagnetic fields and waves, signal processing and communication systems. The computer option addresses the increasing need for specialized skills in this area.

They will develop design skills progressively, beginning with their first courses in circuit analysis and digital circuits and will apply their accumulating knowledge to practical problems throughout the curriculum. This process culminates in the capstone design course, which complements the analytical part of the curriculum.

The thorough preparation afforded by the electrical engineering curriculum includes the broad education necessary to understand the impact of engineering solutions in a global and societal context. Graduates will hence be well prepared for professional employment or advanced studies. The eleven generic indicators of achievement listed under the Department of Engineering objectives apply specifically to electrical engineering graduates, as a measure of the program's effectiveness in meeting its stated objectives.

In addition to fulfilling the degree requirements listed above, the following courses must be successfully completed. ENGL 1-2 or placement examination*; 15 hours in humanities or social science electives**; 6 hours in literature or literature in translation; the two literature courses must be chosen from core courses in CLL, ENGL, FRLT, JW ST, LIT or SPLT in the humanities division under the appreciation and analysis heading. The 15 credits of social science and humanities electives must include SPCM 1 or 7, one core course in behavioral social sciences, one core course in history and philosophy in social sciences and TPP 112. Students transferring in with previous social science/humanities credits may use them in place of core requirements in the same category as the transferred credits.

MATH 19, 20, 29, 131, 143 and 144 or 147 or CSC 185; PHYS 11A, 11B, 12A, 12B; CHEM 3A, 3B, 4A; ENGG 9A (for full-time students), 10, 25, 27, 30, 32A, 32B, 33, 34, 35, 36, 104, 111, 113, 143B, 149, 171, 176, 177, 178, 189, 192, 193, 194, 195; 9 hours in technical electives†††

A cumulative average of C or better is required in the following courses: ENGG 30, 32A, 33, 36, 104, 176, 177, 193; a cumulative average of C or better is required in all engineering courses.

COMPUTER ENGINEERING OPTION: ENGG 10, 35, 111, 171, 178, 189 are replaced by CSC 15, 16, 112, 120, ENGG 151 and 173. Of the three technical electives, one must be a computer science course at the 100-level, and two must be 100-level engineering courses. Reflecting the fact that not all full-time students can and do adhere to a four year time frame for degree completion, the suggested sequence below shows a possible alignment of courses within that compass.

*If this requirement is fulfilled by passing the placement examination, 6 semester hours in the humanities or social sciences should be taken with adviser's approval.

**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.

†For B.A. requirements, see page 79.

††For literature core requirements, see page 82.

†††With adviser's approval; one technical elective must be a design course.

FULL-TIME STUDENTS—138 s.h.
SUGGESTED FOUR-YEAR SEQUENCE

	FIRST YEAR	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
MATH 19, 20	4	4
ENGG 9A, 10	2	3
CHEM 3A, 3B, 4A	4	3
PHYS 11A, 11B	-	5
ENGL 1-2 or placement examination*	3	3
Social science or humanities elective**	3	-
	<u>16</u>	<u>18</u>
SECOND YEAR		
MATH 29, 131	4	3
ENGG 25, 32A	3	3
30, 27	3	3
34	-	1
PHYS 12A, 12B	5	-
Literature or literature in translation	3	3
Social science or humanities elective**	-	3
	<u>18</u>	<u>16</u>
THIRD YEAR		
MATH 143 and 144	3	3
ENGG 36, 104	3	3
176, 177	3	3
189	-	3
33, 192	3	1
32B, 193	1	3
TPP 112	-	3
Social science or humanities electives**	3	-
	<u>16</u>	<u>19</u>
FOURTH YEAR		
ENGG 35	3	-
111, 113	3	3
143B, 149	3	3
171, 178	3	1
194, 195	-	4
Social science or humanities elective**	3	-
Technical electives††	3	6
	<u>18</u>	<u>17</u>

PART-TIME STUDENTS—136 s.h.

Part-time students follow the same curriculum as listed under the full-time program of study, with the exception of ENGG 9A. Candidates for graduation must fulfill all requirements listed under the individual program. The B.S. Specialization in Electrical Engineering requires 136 semester hours of part-time study.

B.S. SPECIALIZATION IN MECHANICAL ENGINEERING

Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

PROGRAM EDUCATIONAL OBJECTIVES

This program provides intensive study at the undergraduate level in the field of mechanical engineering. A healthy mix of theory, experiment and design informs the curriculum. Design is introduced early in the curriculum, and all graduates are expected to be broadly enough educated to complete capstone senior design courses in two distinct areas of mechanical engineering. Extensive laboratory involvement inculcates valuable insights into experimental methods and, in some cases, original research. Through a suitable choice of technical electives (decided on in consultation with a mechanical engineering faculty adviser)

students have the opportunity to develop a greater in-depth knowledge of a major branch of mechanical engineering (aerospace, solid mechanics, controls, or thermal/fluids). In addition, the program provides a strong foundation in the engineering sciences, mathematics, and liberal arts.

The primary goal of the program is to provide the preparation necessary for graduates to have successful and productive careers in mechanical engineering and related fields, and to have the requisite academic background should they proceed to advanced graduate study in engineering or other professional fields. This educational goal includes the kindling of a desire to continue learning beyond the completion of formal education, and an ability to utilize engineering skills in non-traditional occupations. The eleven generic indicators of achievement listed under Department of Engineering objectives apply specifically to mechanical engineering graduates, as a measure of the program's effectiveness in meeting its stated objectives.

In addition to fulfilling the degree requirements on page 86, the following courses must be successfully completed. ENGL 1-2 or placement examination*; 18 hours in humanities or social science electives**; 3 hours in literature or literature in translation; the literature course must be chosen from core courses in CLL, ENGL, FRLT, JW ST, LIT or SPLT in the humanities division under the appreciation and analysis heading. The 18 credits of social science and humanities electives must include SPCM 1 or 7, one core course in behavioral social sciences, one core course in history and philosophy in social sciences and TPP 112. Students transferring in with previous social science/humanities credits may use them in place of core requirements in the same category as the transferred credits.

MATH 19, 20, 29, 131, 143 and 144 or 147 or CSC 185; PHYS 11A, 11B, 12A; CHEM 3A, 3B, 4A; ENGG 1, 9A (full-time student only), 10, 25, 26, 27, 28, 30, 34, 35, 100, 113, 114, 115, 139, 141, 142, any two of 143D, 143E, 143F; 149, 160, 163, 169, 170; 12 hours in technical electives†

Course selection is made in conference and with the approval of a faculty adviser.

A cumulative average of C or better is required in the following courses: ENGG 25, 26, 27, 28, 113, 114, 115, 141; a cumulative average of C or better is required in all engineering courses. Reflecting the fact that not all full-time students can and do adhere to a four year time frame for degree completion, the suggested sequence below shows a possible alignment of courses within that compass.

FULL-TIME STUDENTS—137 s.h.
SUGGESTED FOUR-YEAR SEQUENCE

	FIRST YEAR	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
MATH 19, 20	4	4
ENGG 9A, 10	2	3
1	2	-
CHEM 3A, 3B, 4A	4	3
PHYS 11A, 11B	-	5
ENGL 1-2 or placement examination*	3	3
	<u>15</u>	<u>18</u>

*If this requirement is fulfilled by passing the placement examination, 6 semester hours in the humanities or social sciences should be taken with adviser's approval.

**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.

†Mechanical engineering majors will choose four technical electives from the following list of courses: ENGG 32A, 36, 116, 119, 129, 130, 131, 132, 134, 136, 138, 140, 145, 146, 174, 179. Course selection is made with approval of a faculty adviser.

††With adviser's approval, one technical elective must be a design course.

SECOND YEAR			
ENGG 25, 26	3	3	
27, 28, 113	-	9	
MATH 29, 131	4	3	
PHYS 12A	4	-	
Literature or literature in translation	3	-	
Social science or humanities electives**	3	3	
	17	18	
THIRD YEAR			
MATH 143	-	3	
MATH 144 or 147 or CSC 185	-	3	
ENGG 30, 34	3	1	
114, 115	3	3	
35	3	-	
160, 163	2	1	
141, 142	3	3	
Social science or humanities electives**	3	-	
Technical elective†	-	3	
	17	17	
FOURTH YEAR			
ENGG 143D, E, or F	3	-	
149	3	-	
169, 170	1	1	
100	3	-	
139	3	-	
143D, E, or F	-	3	
TPP 112	-	3	
Social science or humanities electives**	3	3	
Technical electives†	3	6	
	19	16	

PART-TIME STUDENTS—135 s.h.

Part-time students follow the same curriculum as listed under the full-time program of study, with the exception of ENGG 9A. Candidates for graduation must fulfill all requirements listed under the individual program. The B.S. Specialization in Mechanical Engineering requires 135 semester hours of part-time study.

B.S. SPECIALIZATION IN COMPUTER ENGINEERING

Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

PROGRAM EDUCATIONAL OBJECTIVES

The Department of Computer Science and the Department of Engineering jointly sponsor this program. Students desiring intensive study at the undergraduate level to develop proficiency in the fields of computer engineering, such as hardware, software, and systems that arise in the design, analysis, development, and application of computers and digital systems, will find this program to be a challenging and rewarding experience. The curriculum provides a broad foundation in the science and engineering of computers and digital systems with emphasis on theory, analysis, design, natural science, and discrete and continuous mathematics in a liberal arts setting. The broad range of Hofstra University resources in the humanities and social sciences make the liberal arts component especially enlightening.

Students will develop analytical, computer and applied skills which will enable them to analyze, design and test digital and computer systems, architectures, networks, and processes. Graduates will understand the various areas of computer engineering such as applied electronics, digital devices and systems, electromagnetic fields and waves, and computer architectures, systems, and networks. Graduates will also have an understanding of hardware issues, software issues and models, the interactions between these issues, and related applications. This thorough preparation in theoretical tools and laboratory experimentation will give graduates the skill and flexibility required to meet

the ever changing demands on the computer engineer. The program is responsive to suggestions posed by industry leaders from the Long Island community.

Students will develop design skills progressively, beginning with their first courses in programming, circuit analysis, digital circuits, computer architectures, and networks and they will apply their accumulating knowledge to practical problems throughout the curriculum. This process culminates in the capstone design course, which complements the analytical part of the curriculum.

The thorough preparation afforded by the computer engineering curriculum includes the broad education necessary to understand the impact of engineering solutions in a global and societal context. Hence, graduates will be well prepared for professional employment or advanced studies. The following generic indicators of achievement apply specifically to computer engineering graduates and provide methods to measure of the program's effectiveness in meeting its stated objectives.

1. Ability to apply knowledge of mathematics, science, computer science, and electrical engineering;
2. Ability to design and conduct experiments, and to analyze and interpret data;
3. Ability to design a system, component, or process to meet desired needs;
4. Ability to function on multi-disciplinary teams;
5. Ability to identify, formulate, and solve computer engineering problems;
6. Understanding of professional and ethical responsibility;
7. Ability to communicate effectively;
8. Broad education necessary to understand the impact of engineering solutions in a global and societal context;
9. Recognition of the need and ability to engage in life-long learning;
10. Knowledge of contemporary issues;
11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Candidates for graduation with the B.S. degree in this area must fulfill the following requirements:

1. The successful completion of at least 132 semester hours and a cumulative grade point average of 2.0 for all courses required for the major as well as an overall 2.0 GPA. Military Science may not be counted toward this total semester hour requirement.
2. At least 57 credits must be completed in the liberal arts excluding courses in computer science and engineering. ENGG 149 may be used for liberal arts credit.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. The general and major requirements are listed under the program below. Courses in computer science and engineering may not be taken on a Pass/D+/D/Fail basis.
5. A cumulative average of C or better is required in the following courses: CSC 110 or ENGG 32A, CSC 112, CSC 120, CSC 153 or ENGG 153, CSC 175, ENGG 30, ENGG 36, and ENGG 177. A cumulative average of C or better is required in all computer science and engineering courses.

**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.

†Mechanical engineering majors will choose four technical electives from the following list of courses: ENGG 32A, 36, 116, 119, 129, 130, 131, 132, 134, 136, 138, 140, 145, 146, 174, 179. Course selection is made with approval of a faculty adviser.

FULL-TIME STUDENTS—132 s.h.
SUGGESTED FOUR-YEAR SEQUENCE

FIRST YEAR		
	<i>1st Sem.</i>	<i>2nd Sem.</i>
MATH 19, 20	4	4
CSC 14, 15, 16	6	3
ENGG 9A	2	-
PHYS 11A, 11B	-	5
ENGL 1-2 or placement examination*	3	3
Social science or humanities elective**	-	3
	<u>15</u>	<u>18</u>
SECOND YEAR		
MATH 29	4	-
CSC 120	3	-
ENGG 30, 34	3	1
CSC 110/ENGG 32A, CSC 102/ENGG 101	-	6
CHEM 3A, 3B	-	4
PHYS 12A, 12B	5	-
Literature or literature in translation**	3	-
Social science or humanities elective**	-	6
	<u>18</u>	<u>17</u>
THIRD YEAR		
MATH 143	3	-
CSC 112, 163, 175	3	4
ENGG 33, 36, 104, 176, 177	9	6
CSC 110A/ENGG 32B, CSC 185/ENGG 185/ENGG 189***	1	3
Technical elective****	-	3
	<u>16</u>	<u>16</u>
FOURTH YEAR		
CSC 132	3	-
ENGG 143B, 149, 192	4	3
CSC 153/ENGG 153, CSC 154/ENGG 154	3	1
CSC 187/ENGG 188*****	3	-
Literature or literature in translation**	-	3
Social science or humanities electives**	-	3
Technical electives****	3	6
	<u>16</u>	<u>16</u>

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1. *Engineering Drawing* 2 s.h.
Fall, Spring
Engineering graphics, descriptive geometry, graphical mathematics, sketching and orthographic projection are presented within the framework of the design process. Introduction to, and extensive use of, computer-aided drafting (CAD) software, such as Auto CAD. Prerequisite: high school trigonometry. No liberal arts credit. May not be taken on a Pass/D+/D/Fail basis.
4. *Principles of Electronic Communications* 3 s.h.
Periodically
History, development, theory and operation of electrical communication systems are established. Introductory concepts are developed regarding the basic principles of operation of the telephone, telegraph, radio, sound reproduction and television. High frequency communication techniques including satellite communications and the utilization of lasers as communication devices are examined from an elementary viewpoint. No credit for engineering majors.
- 9A. *Introduction to Engineering* 2 s.h.
Fall
Overview of the engineering profession, its genesis and evolution to the present day, including fields of engineering and career

paths within same. Study of ethics and with emphasis on the engineering workplace. Engineering design and analysis techniques, development of problem-solving skills, communication skills; student design projects. Enrollment restricted to freshmen and sophomores.

- 9B. *Graphic Science* 1 s.h.
Periodically
Engineering graphics, descriptive geometry, graphical mathematics, sketching and orthographic projection.
 10. *Computer Programming for Engineers* 3 s.h.
Fall, Spring
Algorithms, programs and computers. Logic, flowcharting and programming of solutions to engineering problems. Introduction to the programming of numerical methods. Exercises utilizing analytical software packages, such as MathCAD and MATLAB. Corequisite: MATH 19, or permission of department. (Formerly *FORTRAN for Engineers and Physical Scientists*.)
 25. *Mechanics: Statics* 3 s.h.
Fall, Spring
Vector algebra, conditions of equilibrium and constraint, centroids and moment of inertia, stress resultants, analysis of simple trusses and frames, friction, virtual work. Prerequisite: PHYS 11A. Corequisite: MATH 29.
 26. *Mechanics: Dynamics* 3 s.h.
Fall
Kinematics and kinetics, impulse and momentum, impact, work-energy of particles and rigid bodies. Relative motion including Coriolis' acceleration, conservation of energy and conservation of momentum. Prerequisite: ENGG 25.
 27. *Engineering Materials* 3 s.h.
Fall, Spring
Atomic structure and its relationship to properties of engineering materials. Mechanical, metallurgical, thermal, optical, chemical, electrochemical, radioactive, electrical and magnetic properties. Failure analysis, material selection and design. Ferrous and nonferrous metals, nonmetallic and anisotropic materials, polymers and ceramics. Prerequisites: CHEM 3A.
 28. *Strength of Materials* 3 s.h.
Spring
Introduction to stress and strain relations in two dimensions. Combined stress at a point; Mohr's Circle of Stress; elastic and inelastic theories of axial stress, flexure, torsion, and buckling. Elastic line relationship for beam displacement. Elementary design. Prerequisite: ENGG 25.
 30. *Engineering Circuit Analysis* 3 s.h.
Fall, Spring
Principles of linear system analysis introduced through the study of electric networks containing lumped circuit elements. DC resistive circuit analysis techniques. Transient analysis with capacitors and inductors. Steady-state AC analysis using phasors to study impedance and resonance. Prerequisite or corequisite: PHYS 12A. Corequisite: MATH 29.
- *If this requirement is fulfilled by passing the placement examination, 6 semester hours in the humanities or social sciences should be taken with adviser's approval.
**With adviser's approval. Courses may not be taken on a Pass/D+/D/Fail basis.
***ENGG 189 may substitute for CSC 185/ENGG 185 with adviser's approval, but students can no longer use ENGG 189 as a technical elective. Note: ENGG 189 is a prerequisite for ENGG 171.
****With adviser's approval.
*****ENGG 188 may substitute for CSC 187 with adviser's approval, but students can no longer use ENGG 188 as a technical elective.

- 32A. *Logical Design and Digital Circuits* 3 s.h.
Spring
Introduction to switching theory and the design of logical networks. Review of number systems and codes. The formulation of logical equations and their realization in hardware. Binary arithmetic and its implementation with logical functions. Combinational and sequential logic networks are studied. These digital principles are applied to the study of registers, counters and information processing systems. Prerequisite: sophomore standing in the department or permission of instructor.
- 32B. *Digital Circuits Laboratory* 1 s.h.
Fall, Spring
Experiments provide laboratory experience in the design and operation of circuits using gates, flipflops and clocks. Prerequisite: PHYS 12A. Prerequisite or corequisite: ENGG 32A. No liberal arts credit. Same as CSC 110A.
33. *Electronic Circuits* 3 s.h.
Fall
Principles of semiconductor electronic devices: operational amplifiers, diodes and bipolar junction transistors. Amplifier specification and external characteristics. Analysis of electronic circuits using graphical methods and electronic device models. Analysis and design of electronic application circuits such as rectifiers, clippers, inverting amplifiers and voltage followers. Introduction to PSpice. Prerequisite: ENGG 30.
34. *Circuit Analysis Laboratory* 1 s.h.
Fall, Spring
The laboratory is designed to enhance the understanding and proper use of selected principles from circuit theory. The experiments introduce basic measurement techniques and problem solving. Comparisons between theoretical and experimental results are investigated in a written laboratory report. Topics include meter calibration, oscilloscope use, transient and steady-state analysis, AC parallel and series circuits, electric filters, Thevenin's theorem, and operational amplifiers. Prerequisite: ENGG 10, ENGG 30. No liberal arts credit. (Formerly *Circuits and Devices Laboratory*.)
35. *Fields, Energy and Power* 3 s.h.
Fall
Introduction to static and quasistatic electric and magnetic fields, with emphasis on physical forces and energy concepts with engineering applications. This includes lumped electric circuit elements, magnetically coupled circuits and transformers, electromechanical networks and rotating machines and direct energy conversion devices. Study of automatic control devices and system behavior. Prerequisite: ENGG 30.
36. *Microprocessor Systems* 3 s.h.
Once a year
Implementation of microprocessors in digital computer systems. Topics include architecture, operations, software, hardware/software design methodology. (2 hours lecture, 2 hours laboratory.) Prerequisites: ENGG 32A, ENGG 10 or CSC 15.
47. *Environmental Engineering* 3 s.h.
See course description, page 312.
60. *Water Quality for Environmental Engineers* 3 s.h.
See course description, page 312.
62. *Environmental Unit Operations Laboratory* 1 s.h.
See course description, page 312.
63. *Biochemical Process Dynamics* 3 s.h.
See course description, page 312.
81. *Introduction to Bioengineering* 3 s.h.
Fall
A survey of applications of quantitative methods of engineering and physical science to problems in biology and medicine. Topics include biomechanics, including solids and fluids; biotransport in the lung and circulatory system; heat transfer in human and animal systems; biomaterials of surgical implants; biocontrol; and bioinstrumentation. Oral presentation in class and a written report are required. Open to bioengineering and biology majors. (3 hours lecture.) Prerequisite: sophomore class standing or permission of instructor. May not be taken on Pass/D+/D/Fail basis. (Formerly ENGG 181) Same as BIO 81
100. *Engineering Economy* 3 s.h.
Fall
Economic analysis for managerial and engineering decision making. Capital utilization based on the time value of capital. Methods for the tangible evaluation of designs, projects and equipment based on cashflows and interest. Capital management, present worth analysis, break-even analysis, and rate of return determination. Factors such as inflation and taxes are also covered. Prerequisite: MATH 20 or permission of department.
101. *Numerical Methods I* 3 s.h.
Fall, Spring
Iterative computational methods for solving numerical equations and systems using computer programs and spreadsheets. Roots of algebraic equations and equation systems. Matrices; solutions of linear algebraic equations by matrix methods, iteration, and relaxation. Taylor's series, finite differences, numerical integration, interpolation, and extrapolation. Solution of initial and boundary value ordinary differential equations. Prerequisite: MATH 20, CSC 15 or ENGG 10 or equivalent. Same as CSC 102 and MATH 147.
104. *Engineering Electromagnetics* 3 s.h.
Spring
Introduction to the theory of electric and magnetic fields, with emphasis on physical concepts and engineering applications. Included are vector analysis, relation between circuit and field concepts at low and high frequencies, and Maxwell's equations. Prerequisites: ENGG 30, MATH 143.
111. *Electromagnetic Waves and Transmission* 3 s.h.
Fall
Study of waves in transmission line networks including impedance properties and power transfer. Electromagnetic waves in waveguides and uniform media, including their reflection, refraction and transmission. Communication and radar systems design involving antennas and propagation. Optimum design methods for maximum power transfer. Prerequisite: ENGG 104.
113. *Engineering Thermodynamics* 3 s.h.
Fall, Spring
Fundamental concepts of thermodynamics, including open and closed systems, properties of thermodynamic fluids, First and Second Laws of Thermodynamics. Prerequisites: MATH 29, PHYS 11A. Corequisite: MATH 20. May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit.
114. *Heat Transfer* 3 s.h.
Fall
Fundamental principles of heat transfer. Topics include steady and transient conduction, free and forced convection, radiation between surfaces, design of heat exchangers and equipment using fins, and numerical techniques for both steady and transient heat transfer. Prerequisite: ENGG 113, MATH 131.
115. *Fluid Mechanics* 3 s.h.
Spring
Fluid statics and dynamics. Incompressible inviscid and viscous flows. Dimensional analysis. Design of piping systems. Pressure and flow measurement. Drag and lift. Prerequisites: ENGG 25, 113. Corequisite: MATH 131.

116. *Compressible Flow* 3 s.h.
Once every three semesters
One-dimensional compressible flow, normal and oblique shocks; two-dimensional and nonsteady flow by method of characteristics. Flow with friction and heat transfer. Design of nozzles, diffusers and gas pipeline systems. Prerequisite: ENGG 115.
117. *Environmental Unit Processes and Operations* 3 s.h.
See course description, page 312.
119. *Methods Engineering* 3 s.h.
Spring
Operation and process analysis. Measurement and evaluation of worker-production systems including time study, work measurement, and predetermined measurement systems. Workplace design. Concepts in Human Factors Engineering and Ergonomics. Systems engineering including the implementation of total quality management systems.
129. *Mechanical Vibrations* 3 s.h.
Once every two years
Properties of mechanical vibrations. Natural frequencies of systems having one or multiple degrees of freedom, forced vibrations with or without damping, vibration isolation and reduction, transient phenomena and application to design. Prerequisites: ENGG 26, MATH 131.
130. *Modeling and Analysis of Dynamic Systems* 3 s.h.
Once every two years
Modeling of mechanical, electrical, electromechanical fluid and thermal systems. Differential equations of motion; dynamic behavior of physical systems; synthesis of systems; fundamentals of control-system analysis. Computer-aided design and analysis techniques. Prerequisites: ENGG 26, 30, MATH 131.
131. *Advanced Strength of Materials* 3 s.h.
Once every three semesters
Curved beams, theories of failure, shear center, elastic stability, beam columns, comparison of designs based upon elementary and advanced methods of analysis, beams on elastic foundations, energy methods, thin plates and shells, and selected topics. Prerequisites: ENGG 28, MATH 131.
132. *Structural Analysis I* 3 s.h.
Fall
Stability and determinacy, analysis of trusses, analytical and graphical methods, determination of forces in determinant structures, influence lines, approximate analysis of structures, displacement of structure by angle changes and energy methods. Prerequisite: ENGG 28.
134. *Structural Analysis II* 3 s.h.
Periodically
Indeterminate structural analysis by force and displacement methods, moment distribution, flexibility and stiffness influence, methods of analysis, structural analysis by computer programs and plastic design. Prerequisite: ENGG 132. No liberal arts credit.
135. *Structural Design* 3 s.h.
Once a year
Design of beams, columns and connections, and other structural components utilizing steel, concrete, timber and other materials commonly employed in structural design. The latest AISC, ACI and NDS specifications are used. Prerequisite: ENGG 28.
136. *Hydraulic Engineering and Water Resources* 3 s.h.
See course description, page 312.
138. *Propulsion* 3 s.h.
Periodically
Applications of principles of thermodynamics, gas dynamics and combustion to the design of air breathing and rocket motors. Thermodynamics of combustion, gas flows with chemical reactions, jet propulsion power plants, design of liquid and solid propellant chemical rockets. Prerequisites: ENGG 116, CHEM 4A. Corequisite: ENGG 116. May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit.
139. *Thermal Engineering* 3 s.h.
Periodically
Synthesis of fundamental principles of thermodynamic fluid mechanics and heat transfer for the design and analysis of systems to produce power or refrigeration. Topics include combustion, vapor power cycles, gas turbine power plants, internal combustion engines, refrigeration cycles and air-conditioning systems. Prerequisite: ENGG 113.
140. *Aircraft Performance* 3 s.h.
Once every three semesters
Examination of performance characteristics of aircraft as a function of propulsion system (turbojet, turbofan, turboprop, piston prop). Optimal conditions for cruise, turning, climb, takeoff and landing. Calculations of best range speed, fuel consumption, and time for maneuvers. Prerequisites: ENGG 26, MATH 131. May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit.
141. *Mechanical Analysis and Design I* 3 s.h.
Fall
General procedures for implementing the design phase of mechanical engineering. Complementary efforts of synthesis and analysis; applied stress analysis involving complex stress fields; deflection and stiffness considerations; stress for combined static and dynamic duties. Spring and shaft design. Prerequisites: ENGG 25, 28.
142. *Mechanical Analysis and Design II* 3 s.h.
Spring
Introduction to lubrication theory: types of lubrication, fluid, friction, hydrostatic and hydrodynamic theories of lubrication, externally pressurized bearings, squeeze-film bearings, wedge-film thrust bearings, journal bearings, bearing materials. Design and analysis of mechanical elements: shafts, gears, rolling contact bearings, clutches, brakes, screws, fasteners, flexible mechanical elements, welded joints. Prerequisite: ENGG 25, 28.
- 143A. *Engineering Design A* 3 s.h.
Fall, Spring
Integration of physical principles with mathematical analysis and/or experimental techniques as basis for an individually required design project in engineering science. Prerequisites: senior standing in Engineering Science.
- 143B. *Electrical and Computer Engineering Design* 3 s.h.
Fall
Integration of physical principles with mathematical analysis and/or experimental techniques as a basis for an individually required design project in electrical engineering. Prerequisite: Senior standing in Electrical Engineering or Computer Engineering. May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit. (Formerly *Electrical Engineering Design*.)
- 143D. *Mechanical Engineering Design* 3 s.h.
Fall
Integration of physical principles with mathematical analysis and/or experimental techniques as a basis for an individually required design project in mechanical engineering. Prerequisites: senior standing in Mechanical Engineering. May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit.
- 143E. *Aircraft Design* 3 s.h.
Periodically
Design of an aircraft meeting the specifications of payload, range, cruising speed and runway length. Project follows accepted design procedure in calculating the design characteristics: fuselage, wing planform and shape, engine specifications. Analysis of

the designed aircraft's performance is calculated. (2 hours lecture, 2 hours laboratory.) Prerequisite: ENGG 140. Corequisites: ENGG 145, 146. No liberal arts credit.

143F. *Mechanical Engineering Design: Thermal and Fluid Systems* 3 s.h.

Spring

Design of thermal systems. Students work in project teams on comprehensive design projects. Determination of process parameters and sizing/selection of equipment and components such as piping, heat exchangers, pumps, valves, compressors and fans. Both the analytical and practical aspects of design are included. Final designs are presented in report form and orally. Utilization of software currently employed in industry. (2 hours lecture, 2 hours laboratory.) Prerequisites: Senior standing in Mechanical Engineering. May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit. (Formerly *Mechanical Engineering Design: Thermal Systems*.)

143G. *Engineering Design B* 3 s.h.
See course description, page 312.

145. *Aerodynamics* 3 s.h.

Once every three semesters

Development of potential flow theory, concepts of circulation and lift. Classical airfoil theory and finite wing theory. Viscous drag and lift-induced drag. Flow control and high lift devices for wings. Effects of compressibility at high subsonic Mach numbers. Prerequisites: MATH 143, ENGG 115.

146. *Aircraft Structures* 3 s.h.

Once every three semesters

Analysis of semimonocoque structures as typified by aircraft wings and fuselages. Normal stress and shear stress analysis of non-symmetric cross-sections, applications to open and closed box thin-walled beams with longitudinal stiffeners. Effects of taper. Torsion of closed box beams, multiple cell beams. Prerequisites: ENGG 28, MATH 131. No liberal arts credit.

147. *Soil Mechanics and Foundations* 3 s.h.

Spring

Fundamentals of soil behavior and its use as a construction material; engineering geology of soils and rocks; soil properties and classification; effective stress principle, consolidation, and settlement; shear strength and limit analysis; relationship of soils to foundation design. Prerequisite: ENGG 28. (Formerly *Soil Mechanics*.)

149. *Technology and Society—An Historical Overview* 3 s.h.

Fall, Spring

The interrelationship between technology and society in the past and present is established. The technological achievements of major civilizations from the Egyptians and Babylonians through the classical Mediterranean, Medieval, Renaissance and modern industrialized eras are all examined. The worldviews of different cultures toward technology are investigated, as well as both the desired and the unforeseen consequences of technological change. Same as TPP 149. (Formerly *Technology and Society—Impact and Implication*.)

153. *Advanced Computer Architecture* 3 s.h.
See course description, page 312.

154. *Advanced Computer Architecture Laboratory* 1 s.h.
See course description, page 312.

151, 156, 157. *Projects in Engineering Design* 1 s.h. each
Fall, Spring

Selections assigned by the instructor for oral and written reports. (Hours arranged on individual basis.)

151. *Projects in Engineering Design—Electrical Engineering I*
Prerequisite: Senior standing in Electrical Engineering or permission of department. (Formerly *Electrical Engineering I*.)

156. *Projects in Engineering Design—Industrial Systems Engineering and Operations Research I*

Prerequisite: Senior standing in Industrial Engineering or permission of department. (Formerly *Industrial Systems Engineering and Operations Research I*.)

157. *Projects in Engineering Design—Industrial Systems Engineering and Operations Research II*

Prerequisite: Senior standing in Industrial Engineering or permission of department.

Prerequisite or Corequisite: ENGG 156 (Formerly *Industrial Systems Engineering and Operations Research II*.)

158. *Independent Study* 2 s.h.

Fall, Spring

Independent design or experimental work in an area of interest. Prerequisite: senior standing or permission of department.

160. *Measurements and Instrumentation Laboratory* 2 s.h.

Fall

Introduction to measurement theory and techniques. Topics include basic elements of measurement systems terminology pertinent to experimental work (accuracy, precision, resolution, uncertainty), graphical and analytical interpretation of data, curve fitting, statistical methods, systematic error analysis, dynamic response of measurement systems. Laboratory experiments incorporate and enhance topics covered in the lecture portion of the course. Several measurement systems are calibrated by the student. Experiments include measurement of flow, temperature, displacement, dimensions, angular velocity, pressure and strain. (1 hour lecture, 2½ hours laboratory per week.) Prerequisites or corequisite: ENGG 28, 113, PHYS 11A. No liberal arts credit.

163. *Mechanics of Solids and Properties of Materials Laboratory* 1 s.h.

Spring

Experimental determination of the properties of engineering materials. Behavior of solids subjected to axial, flexural and torsional stresses. Investigation of creep characteristics, microscopic examination of heat treated metals, introduction to non-destructive testing of materials. Prerequisite: ENGG 28. Corequisite: ENGG 27.

166B. *Medical Instrumentation* 3 s.h.

Once every three semesters

Introduction to the nature of biological signals and the systems engineering principles required for their measurement and analysis. Computer applications to the analysis of physiological signals such as the ECG and EEG and to modeling of biological systems. Design and analysis of amplifiers and digital filters for physiological signal conditioning is emphasized. The origins of signals, and the use of transducers, analog devices, operational amplifiers, and system analysis as applied to biological measurements are covered. Introduction to medical imaging systems and modalities. (2 hours lecture, 2 hours laboratory.) Prerequisites: ENGG 30, 34.

169. *Mechanical Engineering Laboratory I* 1 s.h.

Fall

Experiments in fluid mechanics. Flow visualization, pipe flow analysis, boundary layer measurements, lift and drag of streamlined and bluff bodies, jet impact, supersonic flow characteristics. Use of subsonic and supersonic wind tunnel facilities and data acquisition system. Prerequisite: ENGG 115. No liberal arts credit.

170. *Mechanical Engineering Laboratory II* 1 s.h.

Spring

Experiments, primarily in the areas of heat transfer and vibrations. Prerequisite: ENGG 114. May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit.

171. *Principles of Communication Systems and Noise* 3 s.h.
Fall
Analysis and design of signals and electronic systems used for the modulation and demodulation of carriers. Communication systems using amplitude, angle and pulse modulation are compared with respect to instrumentation requirements, bandwidth and operation in the presence of noise. Computer simulation of performance and probabilistic methods of error analysis for analog and digital systems. Introduction to optical communications. Prerequisites: ENGG 177, 189, and 193.
172. *Computer Aided Circuit Design* 3 s.h.
Spring
Analog, digital and integrated circuits are designed using professional-level software. Basic methods of circuit design are presented followed by execution analysis and optimization using algorithms developed by the student. Prerequisites: ENGG 32A, 32B.
173. *Digital System Design* 3 s.h.
Fall
Principles and method required for the design of small computer systems. Topics include timing, control functions and interface design. Prerequisites: ENGG 32A, 33. Corequisite: ENGG 36.
174. *Direct Energy Conversion* 3 s.h.
Periodically
Analysis of the principles and methods by which energy in various forms is converted directly into electricity. Energy conversion processes studied are thermionic devices, thermoelectric devices, magnetohydrodynamic converters, solar and fuel cells. Prerequisites: ENGG 27, 113.
176. *Network Analysis* 3 s.h.
Fall
Review of circuit equations and classical methods of solution. Laplace transform method of analysis for signal sources and network responses. Convolution method of determining network response. Mutual inductance and transformers. Modeling and analysis of two-port networks. Resonance and filters: analysis and design. Applications to network design; delay distortion, equalization, compensation and impedance matching. Prerequisite: ENGG 30. Prerequisite or Corequisite: MATH 143.
177. *Signals and Linear Systems* 3 s.h.
Spring
Analysis of discrete time and continuous-time signals and systems. Development of Fourier analysis. Determination of transfer functions and impulse response of linear systems. Design of continuous-time electric filters. Sampling and the Nyquist criterion. Introduction of state-variable concepts. Prerequisite: ENGG 176. (Formerly *Signal and Spectrum Transmission*.)
178. *Communication Networks Laboratory* 1 s.h.
Spring
Experiments are designed to provide laboratory experience in the following areas: filters, noise, spectral analysis, transmission lines and individual or team project or design experiments. Prerequisites: ENGG 34, 171. Prerequisite or corequisite: ENGG 111.
179. *Control Systems Engineering* 3 s.h.
Periodically
Analysis and design of feedback control systems. Feedback principles: proportional, integral, derivative and PID feedback, error and stability analysis. Root-locus and frequency-response analysis and design methods. Case studies. Introduction to the state-space approach and digital control. Computer-aided design and analysis techniques. Prerequisite: ENGG 129 or 130 or 176.
180. *Digital Signal Processing* 3 s.h.
See course description, page 312.
182. *Biomechanics and Biomaterials* 3 s.h.
Once every three semesters
This course is designed to introduce the students to the application of statics and dynamics to perform force analyses of the musculo-skeletal system. Introduction to the fundamentals of strength of materials and its application to deformable bodies. Biomechanics of soft and hard tissue and its application to organ systems. Linear viscoelastic models, incorporating a blend of both elastic and viscous characteristics, are analyzed. The course also provides a comprehensive background in biomaterials. Topics include mechanical, chemical and thermal properties of replacement materials and tissues. Implants are studied from the point of view of biological response of tissues and evaluation of biomaterials. (3 hours lecture.) Prerequisite: ENGG 28. Corequisite: ENGG 27.
183. *Cell and Tissue Engineering* 3 s.h.
Periodically
Seminar course uses nature as a basis for engineering design. Compares and contrasts biophysical systems at the molecular and cellular levels. Examines the inner workings of a living cell and the varied mechanisms through which organs/tissues function. Enables students to appreciate engineering design considerations inherent to complete biological systems. Develops strategic insight into the proposal of bioartificial substitutes. Attempts to optimize potential substitutes by borrowing the finest structural qualities eclectically from biological lessons. Topics include cell structure, tissue engineering, biochemical kinetics, mass transfer, mathematical modeling and artificial organs. Open to majors and nonmajors. Prerequisite: junior standing in Engineering Science or permission of instructor. No liberal arts credit. (Formerly *Special Topics in Bioengineering*.)
185. *Methods of Random Processes* 3 s.h.
Fall
Systematic development of the concept of probability and random process theory. Topics include probability and set theory, random variables, density and distribution functions, multivariate distributions, sampling statistics and distributions, central limit theorem, estimation and the philosophy of applied statistics. The material covered is applied to problems in engineering and the physical sciences. Prerequisite: MATH 20.
186. *Design and Analysis of Experiments* 3 s.h.
Spring
Introduction to the principles of statistical analysis and experimental design. Emphasis on designs and analysis useful in scientific research and management science. Topics include inferences concerning one or more means, variances and proportions, regression and correlation, analysis of variance, and experimental design including factorial experiments. Prerequisites: ENGG or CSC 185. Same as CSC 186.
187. *Medical Imaging* 3 s.h.
See course description, page 312.
188. *Operations Research Optimization Techniques* 3 s.h.
Spring
Deterministic and probabilistic methods used in the solution of industrial engineering and systems analysis problems. Emphasis on mathematical model formulation and optimization. Topics include classical optimization methods, game theory, markov chains, deterministic and stochastic inventory models, queuing theory, and sensitivity analysis. Prerequisite: ENGG 185 or equivalent. Recommend taking CSC 187 prior to taking this course. Same as MATH 188.
189. *Random Signal Analysis* 3 s.h.
See course description, page 313.

190. *Physical Electronics and Devices* 3 s.h.
Periodically

Development of techniques to examine device behavior from physical considerations, to characterize this behavior in terms of a mathematical model, and to use this model to interpret network behavior. The physical principles of charge generation and motion in conductors, semiconductors, vacua, plasma and optically sensitive media are considered. Various modeling techniques which are useful in electronic circuit theory (piece-wise-linear, graphical and analytical) are developed. The devices considered will consist of semiconductor and vacuum diodes, vacuum triodes, transistors, tunnel diodes and negative resistance amplifiers. Prerequisite: ENGG 33.

192. *Electronics Laboratory* 1 s.h.
Fall, Spring

The laboratory is designed to enhance the understanding and proper use of selected principles of electronic circuits. Topics cover diode and transistor applications, including feedback analysis and design, BJT and FET amplifier design and the analysis of measurement limitations of selected instruments. Prerequisites: ENGG 33, 34.

193. *Electronic and Feedback Networks* 3 s.h.
Spring

Principles of field-effect transistors. Analysis and design of FET amplifiers and logic circuits. Theory, analysis, and design of electronic feedback amplifiers and oscillators. Use of PSpice for design verification. Prerequisite: ENGG 33.

194. *Advanced Electronic Circuits* 3 s.h.
Spring

Analysis and design of electronic circuits for purposes of pulse amplification, waveshaping, and waveform generation. Design of circuits using transistors and operational amplifiers. Design of wideband amplifiers. Comparators and timers. Pulse response of electric filters. Voltage sweep circuits. Prerequisites: ENGG 32A, 33. (Formerly *Pulse and Switching Circuits*.)

195. *Advanced Electronics Laboratory* 1 s.h.
Spring

Experiments will provide laboratory experience in advanced measurement and instrumentation techniques. Students perform a number of selected experiments from the following: AM and FM modulation and demodulation, operational amplifier applications, regulated power supplies, sweep circuit design, data acquisition. Prerequisites: ENGG 33, 34, 177. Prerequisite or corequisite: ENGG 193, 194.

198. *Honors Thesis* 3 s.h.
See course description, page 313.

199. *Readings in Engineering* 1-3 s.h.
Fall, Spring

Individualized study in the student's area of specialization. Open only to seniors. Prerequisite: written approval of a faculty member who is to be the tutor and of the departmental chairperson. May be repeated for credit when topics vary. No liberal arts credit.

English (ENGL)

Associate Professor Uruburu, *Chairperson*

Professors Bryant, Burke, Couser, DiGaetani, Klause, Krieg, Levin, Lopate, MacCary, Markus, McLaren, Prigozy, Russell; Associate Professors Alter, Berger, Brand, Brogger, Fichtelberg, Harshbarger, Janssen, Levine, Lorsch, Ouis, Rustici, Sargent, Sawhney, L. Zimmerman, S. Zimmerman; Assistant Professors Baron, Fizer, McPhee, Sills, Smith, Sulcer, Jr., Torpey.

THE JOHN CRANFORD ADAMS CHAIR IN THE HUMANITIES is held by Professor Lopate. See page 336.

THE JOSEPH G. ASTMAN DISTINGUISHED PROFESSORSHIP IN THE HUMANITIES. See page 336.

ENGLISH HONOR SOCIETY, see page 75.

The English department offers a full range of courses in literature, creative writing, expository writing, and publishing. The department also offers tutorial services through the Writing Center, see page 24.

THE ENGLISH MAJOR

By studying literature, English majors develop their abilities to read, interpret, think, and write. They expand their intellectual, imaginative, social, cultural, and ethical perspectives, and they enrich their lives. The skills they acquire are useful for anyone living in a complex modern society. They are particularly useful for anyone intending to enter a profession in which mastery of language is important and in which there is a need for an ability to analyze, interpret, write, and explain. Most English majors do in fact go into such professions as teaching (at all levels), publishing, law, journalism, writing, advertising, communications, public relations, management and government.

When a student chooses to major in English, he or she must choose to concentrate either in English and American Literature, in Creative Writing, or in Publishing Studies. Students who choose the English and American Literature concentration take a wide variety of courses in literature, organized around issues, authors, genres, or historical periods. Students who choose the Creative Writing concentration divide their coursework between literature courses and workshops in writing prose, poetry, drama, essays, screenplays, and children's literature. Students who choose the Publishing Studies concentration divide their coursework between literature courses and courses in which they study the history and practice of publishing and the skills and techniques that are essential in the publishing industry.

B.A. SPECIALIZATION IN ENGLISH: the requirements of these three areas of concentration are listed below.

ENGLISH AND AMERICAN LITERATURE: 39 credits in literature as specified below and 3 credits in English or American history.

- 1) 9 credits in foundation courses: ENGL 41 and 6 credits chosen from among the following: ENGL 40 or 43; 42; 51 or 143
- 2) 3 credits in ENGL 100
- 3) 3 credits in major authors chosen from ENGL 107, 115, 116, or 119
- 4) 24 credits of electives: chosen from among any of the 100-level courses in the English department. At least six of these credits must come from courses dealing exclusively with literature written before 1800. In satisfying this requirement, students may elect to take up to 6 credits in any of the following courses offered in other departments: AMST 145, 146; CLL 191, 195, 199; DRAM 173, 174, 175, 176. No more than 6 credits of the 24 elective credits may be in courses in creative writing or publishing studies.
- 5) 3 credits of English or American history, chosen under advisement.

CREATIVE WRITING AND LITERATURE (admission only with permission of the director of the program): 39 credits in writing and literature and 3 credits in history, chosen under advisement, including:

- 1) 6 credits chosen from the following: ENGL 133, 134, 135
- 2) 6 credits in advanced creative writing workshops
- 3) 6 credits in foundation courses
 - a) 3 credits to be chosen from ENGL 40 or 43, 41
 - b) 3 credits to be chosen from ENGL 40 or 43; 41, 42, 44; 51 or 143

- 4) 3 credits in major authors chosen from ENGL 107, 115, 116, or 119
- 5) 18 credits of electives: chosen from among any of the 100-level courses in the English department. At least 12 of these credits must be in literature courses. Of these 12 credits at least 3 must be in a course dealing with literature written before 1900. The remaining 6 credits may be taken in literature, advanced creative writing workshops, publishing or language courses or DRAM 176
- 6) 3 credits in history, chosen under advisement.

PUBLISHING STUDIES AND LITERATURE: 39 credits in publishing and literature and 3 credits in history, including:

- 1) 6 credits chosen from ENGL 40, 41; or 43, 44; or 40, 193
- 2) 13 credits in ENGL 102, 172 & 173, 174, 178
- 3) 6 credits in ENGL 170, 171
- 4) 9 credits of 100-level English or American literature courses
- 5) 5 credits of electives in any other publishing studies, literature, or creative writing courses
- 6) 3 credits in history, chosen under advisement with the director.

The program is assisted by the Advisory Board consisting of the following high level publishing executives: Robert Carter, Eleanor Friede, Jon Gillett, Richard Marek, Richard Seaver, Timothy Seldes, Grace Shaw and Liz Walker.

See complete B.A. requirements, page 79.

TEACHING OF HIGH SCHOOL ENGLISH, see page 286.

A MINOR IN ENGLISH consists of the successful completion of 18 semester hours, under advisement, with at least 6 hours in residence, as follows:

- no more than 6 credits from 40- and 50-level courses
- all other courses must be chosen from 100-level English courses except that up to 6 hours may be chosen from DRAM 173, 174, 175, 176; or CLL 191, 195, 199; or AM ST 145, 146.

English composition courses may not count toward the minor.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1-2. *Composition* 3 s.h. each
Fall, Spring

First semester: an introduction to expository writing at the college level, with an emphasis on analysis and argument. Assignments in reading and writing are coordinated. May not be taken on a Pass/D+/D/Fail basis. Second semester: continued instruction in expository writing, and an introduction to literature. Most reading and writing assignments are organized around a central theme. Includes a Shakespeare play and a documented essay. The English Proficiency Examination is given as part of the course. Prerequisite: ENGL 1. May not be taken on a Pass/D+/D/Fail basis.

1A. *English Composition Tutorial* 1 s.h.
Fall, Spring, Summer

Taken in conjunction with ENGL 1 to assist students in reaching a higher competency in writing English with clarity and precision. May not be used to satisfy the general University humanities requirement. Pass/D+/D/Fail grade only.

2A. *English Composition Tutorial/Workshop* 1 s.h.
Fall, Spring

ENGL 2A, is a workshop in argument and exposition. It focuses on organization, what it means to make an assertion and the nature of evidence. This course is required of students who do not fulfill the English Proficiency Exam requirement. Pass/D+/D/Fail grade only.

4. *Argument and Analysis* 3 s.h.
Fall, Spring

Principles of analysis and argument as they apply to writing tasks commonly assigned in college and in the world of work. Expository writing for various audiences. Practice in revision and editing. Prerequisites: ENGL 1-2. May not be used to satisfy the general University humanities requirement.

5. *Technical Communications* 3 s.h.
See course description, page 448.

30. *Business Communication* 3 s.h.
Fall, Spring

Especially adapted to the needs of business majors. An examination of and systematic practice in writing strategies and styles, with the objective of selecting those modes most effective in interpersonal/organizational contexts. Emphasis on the mastery of professional language, the application of logic to syntactic structures and the development of library research skills. Further expansion of modes of discourse and proper structure and tone as well as analysis of the roles of ethics and psychology in written expression. Required for all business majors who entered Hofstra prior to the fall semester of 1996. Prerequisites: ENGL 1-2. May not be used to satisfy the general University humanities requirement. (Formerly 3.)

30A. *Business Writing for Accountants* 3 s.h.
See course description, page 313.

40. *Source Studies #* 3 s.h.
Fall

Readings in the Old Testament and Greek classics to indicate the sources of contemporary attitudes in the responses of earlier periods and cultures to fundamental human and literary issues. Prerequisite: ENGL 1.

41, 42. *English Literature I #, II #* 3 s.h. each
41: Fall; 42: Spring

An historical survey of the major British authors. First semester: English literature from its beginnings through the 18th century. Second semester: 19th century to the present. Prerequisite: ENGL 1.

43, 44. *Western Literature I #, II #* 3 s.h. each
43: Fall; 44: Spring

The shaping of the western mind as viewed in literature from the Greek and Hebrew experiences to the present. Readings from European texts in translation. First semester: Greeks and Hebrews to the Renaissance. Second semester: Renaissance to the Modern age. Prerequisite: ENGL 1.

45. *Modern Literature* 3 s.h.
Periodically

Literary modernism to 1945 as exemplified by representative western writers and focusing on imagist, naturalist, Marxist and existentialist writers. Prerequisite: ENGL 1.

46. *Contemporary Literature* 3 s.h.
Periodically

The literature and sensibility of our own day with readings to include new poetry, prose and drama not usually dealt with in traditional courses. Prerequisite: ENGL 1.

51. *The American Literary Identity #* 3 s.h.
Fall, Spring

Readings from major American authors; the colonials through 1865. Prerequisite: ENGL 1. Credit given for this course or ENGL 143, not both.

52. *The American Experience in Context #* 3 s.h.
Fall, Spring

Readings from major American authors; 1865 through the present. Prerequisite: ENGL 1. Credit given for this course or ENGL 144, not both.

#Core course

100. *Ways of Reading Literature** 3 s.h.
Fall, Spring
A seminar designed to introduce students to the many different ways in which it is possible to read literature, and to the many issues that need to be addressed when literature is read. Students develop skills needed to analyze literature at an advanced level, and they become familiar with the theoretical and philosophical questions that are involved in the act of interpretation. Prerequisites: ENGL 1-2. Required of all English majors. Limited to 25 students. Credit given for this course or ENGL 197U, not both.
101. *History of the English Language** 3 s.h.
Periodically
The origins and the development of the English language from Old English to the present, introductory linguistic principles presenting language problems in the light of language history. Prerequisites: ENGL 1-2.
102. *Grammar** 3 s.h.
Fall, Spring
Instruction in the forms and functions of standard English grammar and their relation to meaning. Prerequisites: ENGL 1-2. (Formerly *Grammar and Usage**.)
103. *Structure of English** 3 s.h.
Periodically
Current linguistic methods applied to English: emphasis on structural linguistics, transformational grammar. Prerequisites: ENGL 1-2.
104. *Old English Language and Literature** 3 s.h.
Periodically
Introduction to the rich and powerful English literature of a thousand years ago. The class includes instruction and simple reading in the original language, followed by extensive readings in translation. Readings include *Beowulf*, chronicles, riddles, and religious and secular poetry. Prerequisites: ENGL 1-2. (Formerly *The Age of Beowulf**.)
105. *The Middle Ages in England** 3 s.h.
Periodically
English literature of the 13th through 15th centuries. This age is strikingly like our own, with social and intellectual upheavals and its own expression of anxiety and courage, doubt and faith. Authors typically include Chaucer, Langland, the Gawain-poet, and selected early dramatists. Prerequisites: ENGL 1-2. (Formerly *The Age of Chaucer**.)
107. *Canterbury Tales* #* 3 s.h.
Fall, Spring
Study of Geoffrey Chaucer's most important poem, a varied and surprising picture of English life and values in the Middle Ages. Topics include the development of the idea of the individual, faith versus skepticism, and the social implications of age, race, and gender. Prerequisites: ENGL 1-2. (Formerly *Chaucer's Canterbury Tales**.)
110. *The Age of Spenser** 3 s.h.
Periodically
A study of important literary and cultural trends of the 16th century. Readings by such writers as Thomas More, Askew, Queen Elizabeth, Gascoigne, Sidney, Marlowe, Shakespeare and Spenser. Prerequisites: ENGL 1-2.
112. *Elizabethan and Jacobean Drama** 3 s.h.
Periodically
An exploration of the drama exclusive of Shakespeare in the 16th and 17th centuries. In addition to considering questions of language, form, genre and performance, this course explores the relationship of selected plays to political, social, philosophical and theological concerns of the age. Prerequisites: ENGL 1-2. Credit given for this course or New College HD 15D, not both.
115. *Shakespeare: The Earlier Plays and Sonnets* #* 3 s.h.
Fall, Spring
A study of the sonnets and selected comedies, histories, and tragedies (including *Hamlet*) from the first half of Shakespeare's career. Attention is given to close readings, the social, political, and cultural conditions of the age, and to the theatrical heritage of the plays. Prerequisites: ENGL 1-2. Credit given for this course or New College HDG 1, not both.
116. *Shakespeare: The Later Plays** 3 s.h.
Fall, Spring
An examination of the comedies, tragedies, and romances from the last half of Shakespeare's career. Attention is given to close readings, the social, political, and cultural conditions of the age, and to the theatrical heritage of the plays. Prerequisites: ENGL 1-2. Credit given for this course or New College HDG 2, not both.
117. *Seminar: Renaissance and 17th-Century Literature** 3 s.h.
Periodically
Subject to be selected yearly. Prerequisites: ENGL 1-2.
118. *The 17th Century** 3 s.h.
Periodically
A survey of the grand and modest revolutions in the literary, political, and social worlds of England during this period, as those changes are reflected in the works of writers such as Donne and Jonson, Lanyer and Wroth, Milton and Marvell, Bacon and Hobbes, Bradstreet and Behn. Prerequisites: ENGL 1-2.
119. *Milton** 3 s.h.
Spring
An examination of Milton's poetry and prose. Attention is given to such issues as the persona he constructs, his representations of kingship and revolution, and his treatments of marriage and gender. Students come to appreciate some of the literary forms, poetic conventions, and religious, social and political traditions to which Milton was responding and from which he was departing. Prerequisites: ENGL 1-2.
120. *English Drama from 1660 to 1789** 3 s.h.
Periodically
Restoration comedies, the beginnings of bourgeois drama and the comedy of manners: Congreve, Wycherley, Dryden and Sheridan. Prerequisites: ENGL 1-2.
121. *Studies in the Novel I #* 3 s.h.
Spring
The development and variety of the novel form from its beginnings in the 18th century through the 19th century, the great age of the novel. Representative of the major novelistic traditions of those centuries in England, America, France, and Russia, examples studied may include such works as *Tom Jones*, *Frankenstein*, *Jane Eyre*, *Moby Dick*, *Madame Bovary*, and *The Brothers Karamazov*. Prerequisites: ENGL 1-2. (Formerly 121 #, 122, *Studies in the Novel, I #, II*.)
122. *Studies in the Novel II* 3 s.h.
Spring
Investigates the range of novel forms in the 20th century, including works by major novelists such as James, Mann, Proust, Faulkner, Joyce, Woolf, Nabokov, and Marquez. Topics discussed may include novelists' treatment of time, point of view, the quest for values, and the possibilities of modern love. Prerequisites: ENGL 1-2. (Formerly 121 #, 122, *Studies in the Novel I #, II*.)
123. *20th-Century Anglo-Irish Drama** 3 s.h.
Periodically
Irish drama from the beginning of the Irish literary revival in 1898 emphasizing Shaw, Synge, Yeats, O'Casey, Behan and

#Core course

*Open only to students who have fulfilled the English Proficiency Exam requirement.

Beckett. Postwar British theater emphasizing Delaney, Osborne and Pinter. Prerequisites: ENGL 1-2.

124A. *The Woman Writer in America** 3 s.h.
Periodically

A study of the woman writer in America from the Colonial period through the present which considers gender in relation to larger historical issues and forces. Personal narratives, poetry, essays, and novels by such writers as Bradstreet, Sojourner Truth, Dickinson, Wharton, Plath, Oates, and Morrison. Prerequisites: ENGL 1-2. (Formerly ENGL 124.)

126. *The American Short Story** 3 s.h.
Spring

A study of the genre, its origins and development, from 1820 to the present, including works by such diverse writers as Irving, Poe, James, Wharton, Crane, Hemingway, Wright, Welty, Baldwin, and O'Connor. Prerequisites: ENGL 1-2.

129. *The 18th Century** # 3 s.h.
Fall, Spring

Typically short, frequently satirical works in prose and verse from the later 17th century to 1800, the period when emerging middle- and lower-class kinds of literature challenged traditional aristocratic kinds. The flourishing of such genres as mock-epic, periodical essay, biography, and novel, and of such major authors as Dryden, Defoe, Swift, Pope, Johnson, Boswell, and Blake. Prerequisites: ENGL 1-2.

130. *Seminar: 18th-Century Literature** 3 s.h.
Periodically

Subject to be selected yearly. Prerequisites: ENGL 1-2.

131. *The 18th-Century British Novel** 3 s.h.
Periodically

The rise of this popular genre in the century that mainly invented it, in subgenres involving forms of autobiography, journalism, satire, epic, romance in general, and Gothic romance in particular, by such authors as Defoe, the Fieldings, Richardson, Sterne, Smollett, Burney, and Austen. Prerequisites: ENGL 1-2.

132. *The 19th-Century British Novel** 3 s.h.
Periodically

The 19th-century English novelists: Austen, Scott, Emily Brontë, Thackeray, Dickens, Eliot and other writers. Prerequisites: ENGL 1-2.

133. *Workshop: General Creative Writing** # 3 s.h.
Fall, Spring

Develop and sharpen writing skill in all forms of creative writing. Students' work is read aloud and the techniques employed in celebrated works of literature are studied and analyzed. Prerequisites: ENGL 1-2.

134. *Workshop: Poetry Writing** 3 s.h.
Fall

A workshop to help the developing poet sharpen the powers of poetic expression. Reading and discussion of students' poems, and analyses by students of themes and techniques of contemporary poems of their choice. Prerequisite: ENGL 133 or submission of manuscript. Credit given for this course or New College CSWG 2, not both.

134A. *Workshop: Poetry Writing**† 2 s.h.
Discussion includes contemporary poets. Same as ENGL 134.

135. *Workshop: Prose Writing** 3 s.h.
Fall

A workshop to help the developing writer of short stories and novels sharpen the powers of expression. Students' work will be read and analyzed, discussions will deal with matters particular to

the manuscript as well as with general problems of craft. Prerequisite: ENGL 133 or submission of manuscript.

136A. *Workshop: Short Fiction Writing**† 2 s.h.
Discussion includes matters particular to the manuscript as well as with general problems of craft. Credit given for this course or New College CSWG 4, not both.

136B. *Workshop: Children's Fiction Writing**† 2 s.h.
Discussion includes techniques and themes in contemporary examples of children's fiction. Credit given for this course or New College CSWA 13, not both.

136C. *Workshop: Writing in Varieties of Nonfiction**† 2 s.h.
Discussion of techniques used in a wide range of nonfiction writing including journalistic columns, the familiar essay, interviews, magazine articles, drama and book reviews. Credit given for this course or New College CSWA 15, not both.

136D. *Workshop: Writing for Stage, Screen and Television**† 2 s.h.

Discussion includes techniques in contemporary scripts for theater, film and television. Credit given for this course or New College CSWA 12, not both.

137. *Colonial and Early American Literature from the Puritans Through Irving** 3 s.h.

Periodically
An intensive examination of the literature and ideas of Colonial America through the early Republic in personal narratives, essays, sermons, and poetry by such writers as Bradford, Mather, Bradstreet, Rowlandson, Edwards, and Franklin. Prerequisites: ENGL 1-2.

138. *American Literary Naturalism** 3 s.h.
Periodically

The philosophical premises, major themes, and significance of race, gender, and time in American literary naturalism. Writers include Crane, Norris, Dreiser, Wharton, London, Wright and others. Prerequisites: ENGL 1-2. (Formerly *Naturalism in American Literature*.)

139. *The African Novel** # 3 s.h.
See course description, page 313.

140, 141 #. *African American Literature** I, II # 3 s.h. each
Fall, Spring

First semester: the origins of an African American literary tradition from the Colonial period to the early 20th century. Themes include the African Diaspora, slavery, folk culture, race, and social equality. Such authors as Equiano, Wheatley, Douglass, Brown, Jacobs, Harper, Washington, and Du Bois. Prerequisites: ENGL 1-2. Second semester: the growth of African American literature from the Harlem Renaissance to the present. Such topics as migration, African heritage, protest, vernacular, and gender. Writers include Hughes, Hurston, Wright, Brooks, Ellison, Baldwin, Baraka, Walker, Morrison, and Wilson. Prerequisites: ENGL 1-2. (Formerly *The Literature of Black America I, II* #)

142. *The American Renaissance, 1820-1860** 3 s.h.
Periodically

A study of a period in American literary history so rich, it as been called "the American Renaissance." Works by such authors as

#Core course

*Open only to students who have fulfilled the English Proficiency Exam requirement.

†Summer Writer's Conference designed to help developing writers sharpen their powers of expression including reading and discussion of student's work, and analysis of themes and techniques. Prerequisite: ENGL 133 or permission of the Director of the Conference.

- Emerson, Thoreau, Melville, Poe, Hawthorne, Douglass, Stowe, Whitman and Dickinson. The development of a distinctively American literature is studied in the context of the revolutionary changes and deep conflicts that characterized American life in this period. Prerequisites: ENGL 1-2.
143. *American Literature* I #* 3 s.h.
Fall, Spring
A study of the origins and development of an American literary tradition from the Colonial period to the Civil War in the poetry, prose, and fiction of such writers as Bradstreet, Wheatley, Franklin, Hawthorne, Dickinson, Douglass, and Melville. Prerequisites: ENGL 1-2. Credit given for this course or ENGL 51, not both. (Formerly 143 #, 144, *American Literature I #, II*.)
144. *American Literature* II* 3 s.h.
Periodically
A study of the development of American literature from Whitman to the early moderns. The course includes the works of writers such as Crane, Dickinson, Fitzgerald, Hemingway, Wright. Prerequisites: ENGL 1-2. Credit given for this course or ENGL 52, not both. (Formerly 143 #, 144, *American Literature I #, II*.)
- 145A. *American Fiction, 1900-1950* #* 3 s.h.
Fall, Spring
A study of how various writers of the period grapple with questions about literary history, ideology, aesthetics, and the meaning(s) of America. Works by such authors as Chopin, Wharton, Fitzgerald, Hemingway, Hurston, Faulkner, and Wright. Prerequisites: ENGL 1-2. (Formerly *20th Century American Fiction, 1900-1950 #*.)
- 146A. *American Fiction, 1950-Present** 3 s.h.
Periodically
An exploration of how fiction since WWII engages the complexity of aesthetic and cultural challenges that have characterized the second half of the “American” century. Works by such authors as Ellison, Nabokov, Bellow, Pynchon, Morrison, DeLillo, and Erdrich. Prerequisites: ENGL 1-2. (Formerly *20th-Century American Fiction, 1950 to Present*.)
148. *20th-Century American Poetry** 3 s.h.
Periodically
Readings in the poets of the Modern period, such as Eliot, Pound, Frost, Moore, and Stevens, as well as an exploration of a variety of Postmodernisms, including such writers as Bishop, Roethke, Lowell, Ginsberg, Kinnell, Plath, and Rich. Prerequisites: ENGL 1-2. Credit given for this course or New College HLG 15 or HLG 60E.
149. *The 19th-Century American Novel** 3 s.h.
Periodically
A study of the origins and development of the 19th-century American novel in works by such writers as Cooper, Hawthorne, Melville, Stowe, Alcott, Twain, James, and Chopin. Prerequisites: ENGL 1-2.
150. *Native American Literature* #* 3 s.h.
See course description, page 313.
153. *The Romantic Age* #* 3 s.h.
Fall, Spring
The response of British Romantic writers—Blake, Wordsworth, Coleridge, Mary Shelley, Percy Shelley, Byron, and Keats—to the philosophical, industrial, and political revolutions of the late 18th and early 19th centuries. Topics include natural supernaturalism, innocence and experience, social protest, and the Byronic hero. Prerequisites: ENGL 1-2.
154. *Seminar in the Romantic Age** 3 s.h.
Periodically
Subject is selected yearly. Prerequisites: ENGL 1-2.
157. *The Age of Dickens* #* 3 s.h.
Fall, Spring
Writings of the industrial and colonial age in Britain, the 19th century. Readings explore changes in social structure, education, religion, science, and everyday life in the Victorian age; works by such authors as Dickens, the Brontes, Tennyson, the Brownings, Arnold, Gaskell, Eliot, and Butler. Prerequisites: ENGL 1-2.
158. *Seminar in Victorian Literature** 3 s.h.
Periodically
Subject is selected yearly. Prerequisites: ENGL 1-2.
159. *20th-Century British Poetry** 3 s.h.
Periodically
Poetic responses to the philosophical ideas and political and cultural events of modernism. Such poets as Hardy, Hopkins, Yeats, Eliot, Lawrence, Thomas, and Auden are studied. Particular attention is given to their development of new poetic forms and symbolism responsive to 20-century crises of faith and the search for new certainties. Prerequisites: ENGL 1-2.
165. *20th-Century British Novel** 3 s.h.
Periodically
The modern British novel, its themes and innovative forms. Novels by such authors as Conrad, Joyce, Woolf, Forster, and Lawrence are studied with an eye to what makes them representative of modernism: the interest of subjectivity, impressionism, and stream of consciousness, their treatment of alienation, politics, psychology, and sexuality. Prerequisites: ENGL 1-2. Credit given for this course or New College HLG 20, not both.
166. *Critical Theories and Critical Writings** 3 s.h.
Periodically
Theory and technique of literary criticism with practice in writing critical papers. Prerequisites: ENGL 1-2.
167. *Post-Colonial Literature of South Asia* #* 3 s.h.
See course description, page 313.
168. *Caribbean Experience in Literature* #* 3 s.h.
See course description, page 313.
170. *Theory and Practice of Publishing** 3 s.h.
Spring
The full process of publishing from submission of a manuscript to its publication including the various phases of editing and production. A work project is used to illustrate the publication stages. Specialists from the publishing field address the class. Prerequisites: ENGL 1-2. No liberal arts credit.
171. *The History of Publishing in America** 3 s.h.
Fall
A comprehensive study from Colonial days to the present: early printing shops in New England, the first publishing houses, the emergence and continued existence of the by-now giant firms, the establishment of copyright laws and changes in it. How the economic, political and cultural conditions of the country affected the field of publishing and how publishing affected them. Prerequisites: ENGL 1-2.
- 172 & 173. *Book Editing* I, II* 3 s.h. each
172: Fall; 173: Spring
Practices that make up the complete editing of a book: copy and manuscript editing, Production editing, proofreading, symbols, printer’s marks and marking up a manuscript ready for the

#Core course

*Open only to students who have fulfilled the English Proficiency Exam requirement.

printer. The use of a style book. Students in ENGL 173 will edit and produce a book made up from work done by students in the creative writing workshops. Students taking the Publishing Studies concentration must take both courses. Materials fee for both courses: \$25. Prerequisites: ENGL 1-2. Corequisite for 173: ENGL 178.

174. *Book Promotion** 3 s.h.
Spring

Various activities by which a publisher markets a book: book promotion, field sales, book retailing. Covers the development of catalogs, advertising, media promotion, field sales calls, distribution to bookstores, libraries and wholesalers. Prerequisites: ENGL 1-2. No liberal arts credit.

175. *Editing Children's Books** 3 s.h.
Periodically

The skill of presenting fiction and nonfiction to children from the ages of four to fourteen. Included are editing picture books, how-to books, learning books, juvenile fiction and books in science. Prerequisites: ENGL 1-2.

176. *Popular Literature and the Mass Market** 3 s.h.
Every other year

Popular literature, past and present. The making of best sellers. An in-depth look at the making of popular trends, popular literature and popular culture. Editors from the industry visit the class. Prerequisites: ENGL 1-2.

177. *Magazine Editing** 3 s.h.
Periodically

Content selection, editing, makeup and production of mass circulation and popular trade magazines. Prerequisites: ENGL 1-2.

177A. *Textbook Editing** 3 s.h.
Periodically

A study of the categories within the textbook division—various age levels and fields of study—emphasizing the editorial practices essential to a clear presentation of information. Students edit one entire manuscript including copy editing, proofreading, design and production. The nature of the market, its distribution and promotion. Prerequisites: ENGL 1-2.

178. *Book Design and Production** 1 s.h.
Spring

Fundamentals of design and production. Aesthetic and economic consideration. Discussion on type selection, page design, paper selection and understanding the manufacturing process. Prerequisites: ENGL 1-2. Corequisite: ENGL 173. No liberal arts credit.

178A. *Book Retailing** 1 s.h.
Spring

Distribution and retailing. Function of sales department in publishing house, national sales networks, distribution to libraries, and wholesale and retail book outlets. Tours of leading bookstores in the City. Prerequisites: ENGL 1-2. No liberal arts credit.

178B. *Books and the Law** 1 s.h.
Spring

Copyrights, contract clauses, questions of libel. Prerequisites: ENGL 1-2. No liberal arts credit.

178C. *The Economics of Publishing** 1 s.h.
Spring

How the costs of books are determined, how promotion is budgeted and how a publishing house is structured from an economic point of view. Prerequisites: ENGL 1-2. No liberal arts credit.

178D. *Desktop Publishing for Book Publishing** 3 s.h.
See course description, page 313.

191A. *Science Fiction** 3 s.h.
Spring

A survey course, from the classics to the moderns including readings from the works of such authors as Mary Shelley, Verne, Wells, Stapledon, Heinlein, Asimov and Clarke. Prerequisites: ENGL 1-2.

SPECIAL STUDIES AND SEMINARS

Each semester, the department offers several "special studies" courses. These courses deal with specific issues, themes, genres, and authors. The topics of the "special studies" courses change every semester. Please consult the *English Department Course Description Booklet* for topics offered in a particular semester. Prerequisites: ENGL 1-2.

182, 183, 184, 190, 192, 196,
197, 198, A-Z. *Readings in Literature
or Special Studies** 3 s.h. each

Fall, Spring
Intensive study of major authors and/or literary themes. Subjects to be selected yearly. Prerequisites: ENGL 1-2. May be repeated for credit when topics vary.

193. *Classical Influences on Modern Literature:
the Bible and Greek and Roman Classics** 3 s.h.

Fall
An investigation of the influence of the Bible and the Greek and Roman classics on major works of English and American literature. Attention to literary forms and patterns as well as to theological and philosophical ideas. Prerequisites: ENGL 1-2, 40.

188, 195, A-Z. *Independent Readings in Literature** 1-3 s.h. each
Fall, Spring

Readings are selected appropriate to the interests of the students and instructor. Written work as applicable. Prerequisites: ENGL 1-2. May be repeated for credit when topics vary.

199. *Honors Essay** 3 s.h.
Fall

Writing of a substantial essay in the field of English or American literature. Open only to senior English majors who are eligible for departmental honors and who secure, before registration, the written permission of the instructor who will supervise the essay.

English Language Program (ELP)

Administered by the Department of Comparative Literature and Languages. Professor Donahue, *Chairperson*

Dr. Greaney, *Director*

The English Language Program is designed for students whose native language is not English. Its purpose is to bring non-English speaking students to college-level proficiency in speaking, reading and writing English. It is an accelerated program providing intensive study on a full-time basis. Students who are accepted into a degree-granting program may earn up to 12 semester hours of liberal arts credit. The Bachelor of Arts foreign language requirement may be fulfilled by completing those intermediate (Level II: ELP 25) and advanced (Level III: ELP 31, 35, 36) courses in the program which are designated for degree credit.

Students will be accepted into degree-granting programs upon the successful completion of the following requirements:

*Open only to students who have fulfilled the English Proficiency Exam requirement.

- 1) ELP courses as required, based upon the Hofstra ELP Placement Examination and the student's progress;
- 2) a TOEFL score of 500;
- 3) completion of at least four University courses including ENGL 1 and any one course from the social sciences.

Students not admitted to a degree program are not eligible to take courses other than the English Language Program courses.

For further information, contact the Admissions Office, Admissions Center, or the Director of the English Language Program.

Level I, Introductory Intensive English: an accelerated program providing intensive instruction and practice in reading, writing and speaking English for students whose native language is not English. Level I consists of two components: 1) Reading and Writing; 2) Conversation and Language Laboratory. Each component is based on a grammatical syllabus. No degree credit.

11A. *Introductory Reading Comprehension* 3 s.h.
Fall

Development of reading skills including vocabulary development, comprehension and study skills, and critical evaluation of written materials. No degree credit.

12A. *Introductory Grammar* 3 s.h.
Fall

The introduction and development of the fundamental aspects of English grammar and structure. No degree credit.

13A. *Introductory Conversation* 3 s.h.
Fall

Selected readings and discussions with stress on the audio-lingual aspect of the language and the development of verbal communication skills. No degree credit.

14A. *Introductory Language Laboratory and Tutorial* 4 s.h.
Fall

Supervised laboratory and tutorial work on specific weaknesses in spoken English. For beginning ELP students. No degree credit.

15A. *Introductory Composition* 3 s.h.
Fall, Spring

A writing course designed to give the non-native student extensive practice in the development of expository writing skills. No degree credit.

16A. *Introductory Reading and Writing* 6 s.h.
See course description, page 313.

17A. *Introductory Conversation, Language Laboratory and Tutorial* 6 s.h.
See course description, page 313.

Level II, Intermediate Intensive English: an intermediate level program providing intensive instruction and practice in reading, writing and speaking English for students whose native language is not English. Prerequisites: completion of ELP Level I and/or the appropriate satisfactory score on the Hofstra ELP Placement Examination.

21B. *Intermediate Reading Comprehension* 3 s.h.
Fall, Spring

Development of specialized reading skills through selected readings from the disciplines of the sciences, social sciences and the humanities. No degree credit.

22B. *Intermediate Grammar* 3 s.h.
Fall, Spring

Structural review and development of vocabulary and grammar at the intermediate level. No degree credit.

23B. *Intermediate Oral Communication* 3 s.h.
Fall, Spring

Development of ability to communicate orally in English through such activities as discussions and role plays. Focus is on discussion techniques such as clarification and confirmation of a message

and on speech functions such as stating facts, stating or challenging opinions, or reporting information. No degree credit.

24B. *Intermediate Language Laboratory and Tutorial* 3 s.h.
Fall, Spring

Supervised laboratory and tutorial for intermediate work on specific weaknesses in spoken English. No degree credit.

25. *Intermediate Composition* 3 s.h.
Fall, Spring

Development of the student's expository writing skills including idiomatic usage and the argumentative essay.

Level III, Advanced Intensive English: an intensive program providing instruction and practice in written and spoken English for students whose native language is not English. Prerequisite: satisfactory completion of Level II and/or the appropriate scores on the Hofstra ELP Placement Examination.

31. *Advanced Reading Comprehension* 3 s.h.
Fall, Spring

Development of reading skills. Topics range from the liberal arts to the sciences and careers, depending on the interests of the students and faculty.

32C. *Workshop: Sentence Structure and Tutorial* 2 s.h.

Frequent practice in writing with emphasis on the paragraph. Attention is focused on both paragraph organization (topic sentence, development of specific concrete details, coherence) and basic sentence structure (word order, tenses, agreement, punctuation). Required of Level 3 students who are not prepared for ELP 35 based upon the ELP Placement Examination or with the advice of the student's ELP 25 teacher. No degree credit.

33C. *Advanced Oral Communication* 3 s.h.
Fall, Spring

Designed for students who need to increase their fluency and communicative ability in English. Different speaking tasks include discussing, role playing, interviewing and making speeches or short oral reports. Emphasis is given to continuing development of discussion techniques and speech functions practiced in the intermediate course in addition to speech functions such as summarizing, presenting proposals and argumentation. No degree credit.

34C. *English for Academic Purposes* 2 s.h.
Fall

Designed to teach the non-native student skills in following lectures in English, note-taking, summarizing, paraphrasing and test taking necessary for successful participation in the American university system. In particular, this course provides practice in refining listening comprehension skills and, in part, prepares students to take the TOEFL examination. No degree credit.

35. *Advanced Composition* 3 s.h.
Fall, Spring

Designed to have non-native students achieve proficiency in essay writing on specific themes. Introduction to literary analysis using the appropriate technical vocabulary and figures of speech. Prerequisite: satisfactory completion of ELP 25 or permission of instructor.

36. *Topics in American Culture* 3 s.h.
Fall, Spring

Readings and discussions related to contemporary American society. Emphasis is on the writing of essays on current issues in American social, political and economic scenes. Prerequisite: satisfactory completion of ELP 35 or permission of instructor.

Entrepreneurship (ENTR)

Administered by the Department of Management, Entrepreneurship, and General Business. Associate Professor Charnov, *Chairperson*

B.B.A. SPECIALIZATION IN ENTREPRENEURSHIP:

(All specializations must have prior approval of adviser.) The requirements are: ENTR 115, 120, 125 and one of the following: ENTR 165, 170 or 185; and four 3 s.h. courses from *one* of the following areas: ACCT, BCIS, FIN, MGT or MKT (excluding Business Core listed on page 100) selected under advisement. See complete B.B.A. requirements, page 100.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

115. *Entrepreneurship* 3 s.h.
Fall, Spring

An introduction to entrepreneurship. Basic topics will include: entrepreneurship, entrepreneurs, new ventures, position in society and economy, resources, related disciplines, etc. Individual and team projects will include interviews with entrepreneurs and the development of simple business plans. Prerequisite: sophomore class standing or above.

120. *Advanced Entrepreneurship Studies* 3 s.h.
Fall, Spring

An advanced course in entrepreneurship studies building upon the concepts introduced in ENTR 115, which deals in a comprehensive manner with planning, starting, growing and managing new ventures. Students will apply the business case method to various new ventures, develop an individual professional-level business plan using business planning software, and make an individual presentation of that plan. Prerequisites: ENTR 115; BCIS 14; junior class standing or above.

125. *Corporate Venturing and Intrapreneurship* 3 s.h.
Fall, Spring

Focus on how corporations develop new ventures and critically examine the circumstances that make it possible for employees to be entrepreneurial within a corporate context. Intrapreneurial projects will be developed. Prerequisites: ENTR 120, ACCT 101, FIN 101, MGT 101, MKT 101; junior class standing or above.

165. *Research in Current Entrepreneurship Issues* 3 s.h.
Fall, Spring

Current issues and topics in entrepreneurship are examined via the most recent academic and practitioner printed and electronic media and sources. These issues and topics will be subjected to in-depth analysis in the class sessions and in individual written assignments. Prerequisites: ENTR 125, senior class standing.

170. *Entrepreneurship Consulting Project* 3 s.h.
Once a year

Team-based consulting project to entrepreneur business client. Combination of class sessions, instructor-team conferences, student team meetings, research, and team-client meetings. The primary course objective is a comprehensive consulting report for the client. Prerequisites: a minimum grade point average of 3.0 in major and 3.0 overall, ENTR 125, FIN 110, MGT 110, IB 150, ACCT 102, senior class standing.

185. *Internship in Entrepreneurship* 3 s.h.
Fall, Spring

A work-study program open to senior entrepreneurship majors. Students work a minimum of 120 hours in a structured entrepreneurial activities program offered by a for-profit organization. Prerequisites: permission of department chairperson, a minimum grade point average of 3.0 in major and 3.0 overall, ENTR 125, senior class standing. Corequisite: related course in the area of internship. (Students who do not meet these requirements, see ENTR 170.)

Environmental Resources

Administered by the Department of Geology. Professor Radcliffe, *Chairperson*

The B.S. degree in Environmental Resources: students are exposed to the conflicts between modern resource development and conservation. This interdisciplinary program prepares the student for middle management positions in earth and energy resource industries and government service.

B.S. SPECIALIZATION IN ENVIRONMENTAL RESOURCES: candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra.
2. At least 62 semester hours must be completed in the liberal arts, excluding courses in geology.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. And the following general requirements:

	<i>Sem. Hrs.</i>
ENGL 1-2 or placement examination*	6
Humanities electives	6
Social science electives	6

(The humanities and social science electives must be satisfied with approved core courses, see page 82)

Foreign language: level 4, or 6 additional semester hours in humanities electives.

5. The fulfillment of the following major and additional requirements:
 - 38-42 semester hours in introductory courses: BIO 1 & 2; or 3, 4; CHEM 3A & 4A, 3B & 4B; ECO 1, 2; GEOL 1C, 2C or 5; MATH 9 or 11; PSC 1; TPP 1 or 149;
 - 42 semester hours in primary curriculum: BIO 114; CHEM 185 or GEOL 132; CSC 5; GEOG 60; GEOL 33, plus any 7 advanced courses in geology; MATH 10 or 19; PSC 135; ENGL 1-2 or equivalent*; foreign language level 4, or 6 semester hours in humanities electives.

Exercise Specialist

SEE PHYSICAL EDUCATION AND SPORT SCIENCES

Film

SEE SCHOOL OF COMMUNICATION

Finance (FIN)

Associate Professor White-Huckins, *Chairperson*

Professors Cebenoyan, Lyn, Nikbakht, Papaioannou, Rai; Associate Professors Bishnoi, Kim, Krull, Viswanathan, Zychowicz; Assistant Professors Campbell, Karagozoglou, Spieler; Instructor Bales.

B.B.A. SPECIALIZATION IN FINANCE: FIN 132, 160, 165 and 12 semester hours of electives in finance. (No credit given for FIN 31. With permission of department chairperson, finance elective credit given for GBUS 170); three semester hours of economics chosen from ECO 125, 130, 132 or 142; and electives chosen under advisement.

*See University Degree Requirement, page 71.

A **MINOR IN FINANCE** consists of the successful completion of a minimum of 18 semester hours of coursework with grades of C- or better, *under faculty advisement in the Department of Finance*, with at least six semester hours in residence. This includes two required courses (6 s.h.), FIN 101 and 110; two courses (6 s.h.) from the following three: FIN 132, 160 and 165; plus two finance courses (6 s.h.). A completed minor in finance will be listed on the student's transcript.

No School of Business courses may be taken on a Pass/D+ /D/Fail basis.

Nonbusiness majors may choose a finance minor.

No student pursuing a bachelor's degree, other than a Bachelor of Business Administration degree, may complete more than 30 semester hours of School of Business course work without permission of the School of Business Dean's Office. The student must have the appropriate form approved by and filed with the major and minor departments.

All minors must be declared at the Office of Academic Records.

MASTER OF BUSINESS ADMINISTRATION PROGRAMS, see the *Hofstra University Graduate Bulletin*.

MASTER OF SCIENCE IN FINANCE, see the *Hofstra University Graduate Bulletin*.

BUSINESS HONOR SOCIETIES, see page 74.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

31. *Personal Financial Planning* 3 s.h.
Periodically

Basics of personal finance. Types of savings and investments available and their relative merits. A survey of investment principles and problems from the point of view of personal finance. Analysis of real estate, insurance and estate planning. A discussion of charge accounts, installment accounts and various types of credit cards. No credit will be applied to the finance major or minor requirements. (Formerly 131, *Personal Finance*.)

101. *Introduction to Finance, Financial Markets and Institutions* 3 s.h.
Fall, Spring

An introductory course in finance. Topics include the time value of money, risk and return, valuation of securities, the functions, organization, structure and regulation of financial institutions and markets. Overview of the globalization process, ethical, political and social, and demographic issues that apply to financial markets and institutions. Prerequisites: sophomore class standing or above, MATH 9 or above, (excluding MATH 12 and MATH 16) ECO 1, ACCT 101, QM 1.

110. *Fundamentals of Corporate Finance* 3 s.h.
Fall, Spring

A study of the theoretical principles and analytical techniques used for the financial evaluation of capital budgeting, capital structure and dividend policy decisions under conditions of uncertainty. Evaluation of corporate acquisitions; financial statement analysis and overview of working capital management; and study of the international dimensions of corporate finance. Overview of the influence of the globalization process, legal and regulatory, political and social, and environmental forces on corporate finance decisions and practices. Discussion of the

ethical perspectives of corporate financial decisions. Prerequisites: junior class standing or above, FIN 101, ECO 2, ACCT 102. Corequisite: QM 122.

111. *Working Capital Management* 3 s.h.
Once a year

Analysis of the short-term sources and uses of funds with primary emphasis on the management of short-term assets and liabilities. Topics include credit and collections, the role of banks, inventory control procedures, financial analysis, cash forecasting, payables, and investing excess cash. Impact of technology, regulations and globalization on working capital management is discussed. Prerequisite: FIN 110.

123. *Money and Financial Institutions* 3 s.h.
Fall, Spring

The role of money and financial institutions within the financial system. Determination of interest rates. Goals and operations of the Federal Reserve System, and the U.S. Treasury and their impact on the financial system. Study of the framework and the management of banking and nonbank financial intermediaries. Issues pertaining to the regulation, innovation, competition, and internationalization of financial institutions. Prerequisites: junior class standing or above, FIN 101.

132. *Security Analysis* 3 s.h.
Fall, Spring

A study of the theories and analytical techniques used to value financial securities and assets in the markets they are traded. Valuation principles and models for securities including options and futures contracts. Theories of equilibrium asset pricing and the efficient capital markets hypothesis are discussed. Fundamental and technical analysis compared. Overview of the role of computer and information technology for investment evaluation and related securities markets. Discussion of the ethical, global, regulatory, environmental and demographic issues which impact the analysis and valuation of investments by individuals and institutional investors. Prerequisite: FIN 110.

133. *Portfolio Management* 3 s.h.
Once a year

A course in modern portfolio theory and its applications. Efficient diversification, portfolio construction and evaluation procedures. Management of equity and bond portfolios and risk hedging techniques. Portfolio practices and strategies for institutional and individual investors. Impact of globalization, ethics, regulations, social and international dimensions are incorporated into specific topics. Computer applications and hypothetical portfolio construction and performance evaluation are required in this course. Prerequisite: FIN 110. Corequisite: FIN 132.

135. *Options and Futures* 3 s.h.
Once a year

Analysis of options and futures contracts traded worldwide. Topics include the organization and structure of markets in which they are traded; ethical considerations faced by market participants; effect of recent computer advances on futures and options markets; pricing futures and options; hedging applications; the role of price discovery; and speculative strategies. Although particular emphasis is on financial futures and options, commodity futures and options are also discussed. Corequisite: FIN 132.

141. *Money and Capital Markets* 3 s.h.
Fall, Spring

An in-depth analysis of the structure of domestic and international money and capital markets and the role the government plays in these markets. The role of investment bankers, brokers, and dealers in the financial markets. The characteristics of different financial instruments traded in the money and capital

markets, including their relevant risk and yields. Issues pertaining to ethics, innovation, competition, and globalization of financial markets. Prerequisites: junior class standing or above, FIN 101.

150. *Commercial Bank Administration, Policies and Practices* 3 s.h.
Fall, Spring

A study of the operations and policies of commercial banks. Overview of the industry and regulatory environments. Analysis of the banking operations, and techniques for bank asset and liability management. International dimensions of banking activities; discussion of ethical and social considerations. Prerequisite: FIN 110.

151, 152. *Readings* 1-3 s.h. each
Fall, Spring

Assigned readings on a tutorial basis; oral or written reports may be required. Prerequisites: FIN 110 and permission of the department chairperson.

157, A-Z. *Seminar: Special Topics in Finance* 3 s.h.
Periodically

An advanced in-depth treatment of special topics. Current topics are explored through a variety of methods, such as lectures, projects and case studies. Prerequisites: FIN 110, and any additional prerequisites as stated in the course schedule.

As individual subjects are selected, each is assigned a letter (A-Z) which is affixed to the course number. Students may take up to two of these courses to fulfill their major requirements so long as each seminar has a different letter designation.

160. *Corporate Financial Policy* 3 s.h.
Fall, Spring

An in-depth study of financial theory and analysis used to evaluate and set corporate financial policy in the areas of capital budgeting, capital structure, dividend distribution, corporate restructurings, and working capital management. Discussion of the role of the various firm stakeholders in influencing financial policy. The ethical, global, social and political, regulatory, and environmental issues related to corporate financial policy are also discussed. Prerequisite: FIN 110.

165. *Principles of International Financial Management* 3 s.h.
Fall, Spring

Principles of financial management of firms operating in the global market. The parity relationships between interest rates, exchange rates and inflation rates are defined and emphasis placed on the techniques employed by multinational firms to borrow short and long term capital, evaluate projects on a global basis and hedge anticipated cash flows and profits against adverse exchange rate risks. The dilemma and ethical, environmental and legal issues encountered because of the divergence of goals and needs between parent and subsidiaries and between local and host governments are also examined. Prerequisite: FIN 110.

166. *International Financial Markets and Investments* 3 s.h.
Fall, Spring

Framework of the global financial markets and the development of foreign financial assets. Emphasis on the innovations and evolution of the various financial instruments and the role played by the markets. Foreign financial markets include foreign exchange markets, international bond and stock markets, international loan markets, futures and options markets and emerging securities markets. Financial instruments include Eurodollar bonds, foreign spread agreements, currency swaps and currency options and futures. Prerequisite: FIN 110.

170. *Fundamentals of Insurance* 3 s.h.
Once a year

Basic principles underlying the field of insurance and risk management including the financial, economic, social, ethical and political ramifications of decision making in this area. An analysis of the institutional aspects of risk management, which

will enable the individual or business to lessen financial loss from fortuitous causes. Prerequisite: FIN 110.

174. *Business Internship* 1-3 s.h.
Fall, Spring

Actual practical experience in an approved setting open to junior and senior finance majors. Students work a minimum of 40 hours for 1 credit or a minimum of 80 hours for 2 credits or a minimum of 120 hours for 3 credits in a structured finance program offered by a for-profit or not-for profit organization. NOTE: Students may take this course only once. Satisfactory completion of this course counts toward general degree requirements but does not satisfy finance major requirements. Prerequisites: permission of department chairperson, a minimum grade point average of 2.5 in finance courses and 2.5 overall, FIN 101, junior class standing or above.

175. *Real Estate Finance* 3 s.h.
Fall, Spring

Evaluation of real estate financing and the mechanics of the mortgage market. The role of regulation, government agencies and the banking system as vehicles in promoting real estate activity. Analysis of real estate investments, property valuation, leases and types of tenancy. Prerequisite: FIN 110.

185. *Internship in Finance* 3 s.h.
Fall, Spring

A work-study program open to senior finance majors. Students work a minimum of 120 hours in a structured finance training program offered by a for-profit or not-for-profit organization. Prerequisites: permission of department chairperson, a minimum grade point average of 3.0 in finance courses and 3.0 overall, FIN 110. Corequisite: related course in the area of the internship. (Students who do not meet these requirements, see FIN 174.) (Formerly *Internship*.)

190. *Honors Essay* 3 s.h.
Fall, Spring

Research for the writing of a substantial essay in the field of finance. Open only to senior finance majors who are eligible for and desire to graduate with departmental honors and who secure, before registration, written permission of the department chairperson. Prerequisites: FIN 110, six additional credit hours in finance, and a minimum grade point average of 3.5 in finance and 3.4 overall.

Fine Arts (FA)

Administered by the Department of Fine Arts, Art History and Humanities. Professor Infield, *Chairperson*

Professors Fendrich, Hilson; Associate Professors Chaleff, Devine, Jaffe, Klinkowstein; Assistant Professor Ocko, Roskin.

Students in all fine arts programs are advised to present examples of work to-date upon declaration of the major. Continuing development of a portfolio is strongly emphasized.

B.A. SPECIALIZATION IN FINE ARTS: students will concentrate their work in one of these areas:

CERAMICS: FA 10, 11, 12, 13, 14, 15, 27, 80, 80A, 81, 82 or 83, 199; nine additional semester hours in fine arts; AH 3 or 5, 4 or 6, 74 and three additional semester hours in art history.
Associate Professor Chaleff, *Adviser*.

DESIGN: FA 10, 11, 12, 13, 14, 15, 27, 51, 51A, 102A, 158, 159G, 170, 199; three hours of fine arts electives; AH 3 or 5, 4 or 6, 74; three semester hours of art history electives.
Professor Infield, Associate Professor Klinkowstein, and Assistant Professor Ocko, *Advisers*.

PAINTING: FA 10, 11, 12, 13, 14, 15, 16, 17, 27, 45, 46, 160, 166, 199 or 100; 3 semester hours chosen from FA 58, 59, 170, 172, 173, 198; AH 3 or 5, 4 or 6, 74, 120 or 145.
Professor Hilson, *Adviser*.

PHOTOGRAPHY: FA 10, 11, 12, 13, 14, 15, 27, 51, 170, 170A, 170F, 170G, 170H, 199; three additional semester hours in fine arts; AH 3 or 5, 4 or 6, 74; HUM 141.
Associate Professor Jaffe, *Adviser*.

SCULPTURE-JEWELRY: silversmithing (sculpture/metalry): FA 10, 11, 12, 13, 14, 15, 27, 58, 70, 199; 15 semester hours chosen from FA 59, 80A, 120, 121, 122, 123, 167; AH 3 or 5, 4 or 6, 74; 110 or 165.
Assistant Professor Devine, *Sculpture Adviser*,

NOTE: the humanities requirements may not be fulfilled by additional fine arts or art history courses.

See complete B.A. requirements, page 79.

B.S. SPECIALIZATION IN FINE ARTS with concentrations in Ceramics, Design, Painting and Sculpture-Jewelry: candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 129 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra.
2. At least 66 hours must be completed in liberal arts with no less than 60 outside the Department of Fine Arts.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 hours. The 15 semester hours need not be included within the last 30 hours.
4. The following general requirements:
ENGL 1-2***
Core course requirement: (for listing of core courses, see page 86)
9 semester hours in the humanities: 3 hours in the creative participation category, 6 hours in the appreciation and analysis category including at least 3 hours of literature. Not more than 3 hours may be satisfied by fine arts core courses of the required nine;
9 semester hours in the natural sciences, mathematics/computer science: the 9 semester hours must include 3 hours in the mathematics/computer science category, 3 hours in the natural sciences category;
9 semester hours in the social science: the 9 semester hours must include 3 hours in the behavioral science category and 3 hours in the history and philosophy category.
5. The fulfillment of the major requirements as listed below.

Students will concentrate their work in one of these areas:

CERAMICS: FA 10, 11, 12, 13, 14, 15, 27, 45, 58, 59, 70, 80, 81, 82, 83, 170, 180, 180A, 199; and three additional semester hours in fine arts; AH 3 or 5, 4 or 6, 74, and three additional semester hours in art history.
Associate Professor Chaleff, *Adviser*.

DESIGN: FA 10, 11, 12, 13, 14, 15, 27, 45, 51, 51A, 58, 102A, 158, 159G, 170, 199; twelve semester hours of fine arts electives; AH 3 or 5, 4 or 6, 74; three semester hours of art history electives.
Professor Infield, Associate Professor Klinkowstein, Assistant Professor Ocko, *Advisers*.

PAINTING: FA 10, 11, 12, 13, 14, 15, 16, 17, 27, 45, 46, 80, 160, 166, 170, 199 or 100; 3 semester hours chosen from FA 58, 59, 198; nine additional semester hours in fine arts; AH 3 or 5, 4 or 6, 74, 120 or 145.
Professor Hilson, *Adviser*.

SCULPTURE-JEWELRY: FA 10, 11, 12, 13, 14, 15, 27, 58, 59, 70, 120, 161, 167, 199; 6 semester hours chosen from FA 121, 122, 123;

twelve additional semester hours in fine arts; AH 3 or 5, 4 or 6, 74; 165 or 110.

Assistant Professor Devine, *Sculpture Adviser*,

B.S. IN ED.—SPECIALIZATION IN FINE ARTS EDUCATION, see page 284.

Associate Professor Fendrich, *Departmental Adviser*.

A MINOR IN FINE ARTS consists of the successful completion of 18 s.h. in the department, at least 6 hours in residence. Any combination of fine arts courses is acceptable.

Reports based on museum visits are required of students in some fine arts courses.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1. *Introduction to Visual Arts I* 3 s.h.
Periodically
Lecture and workshop exploration of concepts of painting, graphics and related two-dimensional art forms. Limited to nonfine arts majors.
5. *Visual Arts: Beginning Drawing* 3 s.h.
Fall, Spring
A basic introduction to techniques and concepts of drawing utilizing the human form as a primary resource. Limited to nonfine arts majors.
6. *Introduction to Printmaking* 3 s.h.
Fall, Spring
Printmaking, design and narrative techniques will be explored in this course. This class will investigate the nature of book structures. Assigned projects will introduce the methods and means of making fold books, pamphlets, accordion fold books and a Japanese bound book structures. A visit to a museum/printshop/or artist studio will be made in coordination with the studio part of this course. (Formerly *Introduction to Graphics Arts I*.)
7. *Fundamentals of Visual Expression* 3 s.h.
Periodically
Visual education through drawing experiences. Develop visual literacy and the ability to communicate ideas graphically. Studio problems exploring the relationship between perception, mental image and graphic expression are combined with a variety of drawing media and techniques. Limited to nonfine arts majors.
8. *Art Concepts and Experiences #* 3 s.h.
Fall, Spring
Art concepts related to experiences in drawing, design and color. Fundamentals of drawing, design and color theory are taught in an integrated sequence to develop student's understanding of art in a studio workshop atmosphere.
9. *Art Studio: Sculpture #* 3 s.h.
Fall, Spring
Introduction to the concepts and practices of the sculptor. Students model clay, carve stone or wood and assemble found objects in a sequence of projects meant to inform visual thinking and encourage expression.
10. *Two-Dimensional Design I: Black and White* 3 s.h.
Fall, Spring
Basic conceptual and studio work in principles of two-dimensional design including exploration of factors of composition, movement, texture, space, pattern, line and scale. Credit given for this course or New College CSFA 1D, not both.

***See University Degree Requirements, page 71.

#Core course

11. *Two-Dimensional Design II: Color* 3 s.h.
Fall, Spring
Continued experimentation with principles of two-dimensional design, with special emphasis in the area of color. Studio situation. Prerequisite: FA 10.
12. *Three-Dimensional Design I: Concepts* 3 s.h.
Fall
Basic theoretical and studio work in principles of three-dimensional concepts. Spatial and formal organization is emphasized in a series of studio projects in various media. Credit given for this course or New College CSFG 4, not both.
13. *Three-Dimensional Design II: Techniques* 3 s.h.
Spring
Introduction to concepts, materials, tools and techniques of the shop, with emphasis toward applicability in the formulation of three-dimensional visual thinking. A progression of projects explores a variety of materials and methods. Prerequisite: FA 12.
14. *Drawing and Perception I* 3 s.h.
Fall, Spring
Freehand and instrument drawing, sketching and perspective systems are taught in an integrated sequence intended to develop the student's awareness of the relationship between visual perception and drawing skills.
15. *Drawing and Perception II* 3 s.h.
Spring
Continuation of 14. Freehand and instrument drawing, sketching and perspective systems are taught in an integrated sequence intended to develop the student's awareness of the relationship between visual perception and drawing skills. Prerequisite: FA 14.
16. *Drawing III: The Figure* 3 s.h.
Fall
Introduction to analysis and representation of the human form, with emphasis on its role as an aesthetic source. Prerequisite: FA 14. Credit given for this course or New College CSFG 3, not both.
17. *Drawing IV: The Figure* 3 s.h.
Spring
Continued exploration of the aesthetic potential of the human form, with emphasis on its role as a compositional element. Prerequisites: FA 14, 16.
27. *Computer Graphics* 3 s.h.
Fall, Spring
Basic computer graphics are used for creative visual problem solving. Emphasis on visual aesthetics and features lecture, demonstration and a survey of the creative application to the design and advertising field.
30. *Illustration* 3 s.h.
Periodically
A basic course introducing materials and techniques of illustration, with emphasis on the understanding and accurate representation of forms and structures. Developing an eye for significant detail is stressed in order for the student to illustrate with clarity. Projects include use of pencil, pen and ink, grease pencil, charcoal, opaque and transparent pigments, colored inks (to acquaint students with the variety of graphic media) available for illustrative purposes. Prerequisite: FA 14.
- 30A. *Biomedical Photography* 3 s.h.
Periodically
A photographic exploration of the macro and micro areas of the world with emphasis on practical experience and application. Attention is given to individual needs, i.e., support materials for research, etc. Use of microscopy, macro lenses; close-up adaptors are used to produce both black and white and color photos. Portfolio is required for grade. Prerequisite: FA 170.
45. *Beginning Painting* 3 s.h.
Fall, Spring
An introduction to painting with emphasis on painting media, color theory and composition. A variety of painting techniques and subject matter is considered. Credit given for this course or New College CSFG 2, not both.
- 45A. *Materials and Techniques of the Painter* 3 s.h.
Periodically
Lectures and demonstrations dealing with the description, properties and execution of egg tempera, casein, oil, acrylic encaustic, watercolor, collage and gouache painting. The student is expected to create original works using all the media. Prerequisite: FA 45.
46. *Intermediate Painting* 3 s.h.
Fall, Spring
Continuation of experiences in painting with greater emphasis on developing students self-expression and creativity by an in-depth approach and concentrated effort in an area of painting of special interest to the student. Prerequisite: FA 45.
47. *Techniques of Watercolor* 3 s.h.
Periodically
A studio course designed for beginning and intermediate students in the use of the transparent water color medium. Materials and techniques of Western and Oriental watercolor are explored with emphasis on their inherent, unique qualities. This course is project oriented, focusing on the study of landscapes and still life subject matter. Prerequisite: FA 45.
48. *Life Painting* 3 s.h.
Periodically
A foundation course in painting from the model with emphasis on the portrait and figure. Includes drawing and design concepts with slide lectures, emphasizing the historical, technical and aesthetic concerns of life painting. Prerequisites: FA 16, 45.
51. *Graphic Design I* 3 s.h.
Fall
Introduction to visual communications based on problem solving; development of basic graphic design skills and professional practice; emphasis on typography. Prerequisites: FA 10, 11, 27 or instructor's permission.
- 51A. *Graphic Design II* 3 s.h.
Spring
Continuation of 51, with emphasis on verbal-visual relationships in visual communications; class projects oriented toward professional application of design principles. Prerequisite: FA 51.
52. *Fundamentals of Applied Design: Three-Dimensional* 3 s.h.
Periodically
Interrelations of function, form and structure in architecture, interior and industrial design with lectures and class assignments. Prerequisites: FA 10, 11, 12, 13, 14, 15.
- 52A. *Fundamentals of Applied Design: Three-Dimensional* 3 s.h.
Periodically
A continuation of 52, for design majors wishing to major in three-dimensional design. Prerequisites: FA 51, 52.
58. *Sculpture I: Construction* 3 s.h.
Fall
A basic understanding of the construction approach to sculpture. Materials such as wood, metals, plastics, and ceramics are used. Various techniques of joining including welding are introduced. Lectures and museum visits supplement studio work.

59. *Sculpture II: Modeling* 3 s.h.
Spring
A basic course meant to provide experience in modeling from life and other forms in such materials as clay, wax, rubber and plaster. Elements of mold making and casting are also covered. Lectures and museum visits will supplement studio work.
70. *Metalsmithing—Jewelry I* 3 s.h.
Fall, Spring
Study, design and construction. Techniques including silver soldering, basic forming, surface treatments, metal coloring, stone setting, and other basic dimensions of jewelry making. Aesthetic considerations are stressed.
71. *General Crafts* 3 s.h.
Fall, Spring
Exploration of various crafts, traditional and contemporary. These crafts will be examined as expressions of their cultural context. Techniques and media included are smithing, enameling, batiking, stained glass and leather.
73. *Current Gallery Developments* 1 s.h.
Periodically
Study and analysis of contemporary developments. Students are required to spend 45 hours in museum and gallery visits. Open to fine arts majors and others with permission of instructor.
80. *Beginning Ceramics* 3 s.h.
Fall, Spring
Study of ancient, classic and contemporary ceramics, with emphasis on hands on creative interpretation and design by the student. (Formerly *Ceramics: The Potters Wheel*.)
- 80A. *Intermediate Ceramics* 3 s.h.
Fall, Spring
Continuation of 80 with emphasis on further development of techniques as well as increased fluency with the language of ancient, classic and contemporary ceramics. Prerequisite: FA 80. (Formerly *Ceramics: Handbuilding Techniques*.)
81. *Ceramic Material Formulation and Kilns* 3 s.h.
Periodically
Study of the physical and chemical properties of clay and glaze including their transformation by firing. Research and experimentation with clays, glazes, and kilns of various cultures, past and present. Exploration of aesthetic, formal and technical implications of ceramic materials and firing techniques. Prerequisite: FA 80 or 80A or permission of instructor. (Formerly *Glaze Formulation and Surface Decoration*.)
82. *Ceramic Sculpture/Advanced Ceramics* 3 s.h.
Once a year
Exploration of ceramics as sculpture. Emphasis on individual creative work. In-depth research including field trips, technical log and preparatory drawings are required of students. Prerequisites: FA 80, 80A. (Formerly *Ceramic Sculpture*.)
83. *Japanese Ceramics* 3 s.h.
Periodically
History and techniques of Japanese ceramics to enrich student's own work. Prerequisite: FA 80 or 80A or permission of instructor.
100. *Departmental Honors* 3 s.h.
Fall, Spring
The research for and the writing of a substantial essay in the field of fine arts or the execution and presentation of a creative project in an acceptable media. Open only to senior fine arts majors (those who have achieved better than a 3.4 cumulative average and 3.5 departmental average) who desire to graduate with departmental honors and who secure, before registration, written permission of the instructor who will supervise the project. FA 100 may be substituted for 199 by those who meet the above qualifications.
- 102A. *New Media I* 3 s.h.
Periodically
Introduces students to the conceptual and creative thinking necessary to conceive and produce new media projects. Included are rudimentary introductions to sound and image programs for the production of screen-based media like digital sound, motion graphics and websites. Emphasis on encouraging experimentation and imagination within focused assignment goals as a means of developing a personal aesthetic direction. Prerequisites: two of the following: FA 27, SCO 4, or MUS 157, or permission of instructor. (Formerly *Multimedia Workshop*.)
- 102B. *New Media II, Intermediate Web Design* 3 s.h.
See course description, page 313.
- 102C. *New Media III, Intermediate Motion Graphics and Sound Design* 3 s.h.
See course description, page 313.
- 102D. *New Media IV: Advanced Screen-based Design Projects* 3 s.h.
See course description, page 314.
106. *Special Projects* 1-3 s.h.
Fall, Spring
Independent study in two and three-dimensional forms. Projects vary from year to year. Permission of department chairperson. Limited to fine arts majors.
120. *Metalsmithing—Jewelry II* 3 s.h.
Fall, Spring
Design and construction of jewelry as a sculptural form. Techniques include lost wax centrifugal casting, advanced stone setting techniques, metal chasing, and repousse and enameling. The aesthetic merits of each student's work is an intrinsic component in its evaluation. Prerequisite: FA 70 or permission of instructor.
121. *Metalsmithing—Forging* 3 s.h.
Fall, Spring
Fundamental design and techniques of forging metal, forming flatware, decorative sections, handles, special applications. The aesthetic merit of each student's work is an intrinsic component in its evaluation. Prerequisite: FA 70 or permission of instructor.
122. *Metalsmithing—Raising* 3 s.h.
Fall, Spring
Fundamental design and techniques of hollow ware: raising, forming and planishing spouts, handles, bodies and box forms, hinging. The aesthetic merit of each student's work is an intrinsic component in its evaluation. Prerequisite: FA 70 or permission of instructor.
123. *Metalsmithing—Jewelry* 3 s.h.
Fall, Spring
Design and techniques including filigree work, advanced surface treatments, engraving, enameling, stone, wood or metal inlay. The aesthetic merit of each student's work is an intrinsic component in its evaluation. Prerequisite: FA 120 or permission of instructor.
158. *Graphic Design III* 3 s.h.
See course description, page 314.
- 159G. *Graphic Design IV* 3 s.h.
Spring
Further comprehensive design projects exploring specific areas of graphic design, including design research, proposal writing

and presentation. Internships inside and outside the University are encouraged in this and all further graphic design courses. Prerequisites: FA 51, 51A, 158.

160. *Painting Workshop I* 3 s.h.
Fall, Spring

A continuation of 46. A studio course to provide advanced students with the means to express their own ideas in the most suitable painting medium. Prerequisites: FA 45, 46.

161. *Sculpture IV: Workshop* 3 s.h.
Fall, Spring

Advanced construction. Prerequisite: FA 58.

166. *Painting Workshop II* 3 s.h.
Fall, Spring

A studio course to provide advanced students with the means to express their own ideas in the most suitable painting medium. Prerequisites: FA 45, 46 and 160.

167. *Sculpture V: Workshop in Advanced Modeling* 3 s.h.
Fall, Spring

Prerequisites: FA 58, 59.

170. *Basic Photography* 3 s.h.
Fall, Spring

Introduction to photography. Course covers the aesthetic and technical aspects of black and white photography including 35mm camera technique, film processing and development of photographs in the darkroom. Weekly assignments, class critique of student work, and slide lectures on photography are given. Students must have an *adjustable* 35mm camera capable of manual controls, and buy film, paper and some materials. Not open to first year students. Prerequisite for fine arts majors only: FA 10. (Formerly *Photography*.)

170A. *Intermediate Photography* 3 s.h.
Fall, Spring

Advanced techniques and aesthetics of black and white printing and developing. Using 11" × 14" fiber paper (or larger), students learn to make the fine print. Opportunity for experimentation with technique, form and content. Exploration of different films, papers, toners. Students are encouraged to develop a personal vision. Assignments, class critiques and discussions on historical/contemporary photographers and issues. Prerequisite: FA 170 or permission of instructor.

170B. *Advanced Photography* 3 s.h.
Periodically

For fine arts majors interested in pursuing individual projects. Emphasis on individual creativity, developing and refining a personal style. Students are expected to produce a professional-level portfolio with a consistent vision. Individualized reading assignments. Class discussion of contemporary issues. Prerequisite: FA 170A or permission of instructor.

170E. *Documentary Photography* 3 s.h.
Once a year

Students photograph extended projects that tell a story and convey the texture of people's lives. They learn how to be keen observers of events and visually interpret the world around them. This course covers technical, aesthetic and practical considerations of shooting 'on location.' Much of the work takes place in New York City or on Long Island. Class critiques and slide lectures from current and historical documentary photography. Prerequisite: FA 170 or permission of instructor. (Formerly *Location Photography*.)

170F. *Color Printing from Color Negatives* 3 s.h.
See course description, page 314.

170G. *The Portrait—Studio Photography I* 3 s.h.
Fall

Introduction to studio photography and portraiture. Basic principles and techniques of daylight, tungsten and strobe lighting. Students learn how to light and photograph people. A variety of approaches are explored from traditional to experimental. Use of an assortment of studio tools, black and white, color films. Students have access to the studio. Weekly assignments given as well as freedom to pursue individual ideas. Class critique of student work; slide lectures from historical/contemporary portraiture. Prerequisite: FA 170A. (Formerly FA 170D, *Photographing People: The Portrait*.)

170H. *Large Format Camera* 3 s.h.
Every other Spring

This is a large format photography class using the 4" × 5" studio view camera and traveling field cameras, strobe, and tungsten lighting. Aesthetic and technical problem solving using fine art and commercial applications. Creative work centers on still life, but may also include architectural, landscape, and portraits. Students develop the 4" × 5" negative, print on 11" × 14" and 16" × 20" paper, shoot color transparency and Polaroid films. Access to studio; assignments, class critiques slide lectures. Prerequisite: FA 170G or permission of the instructor. (Formerly FA 170C.)

171. *Alternative Photographic Processes* 3 s.h.
Once a year

This course explores alternatives to the traditional silver print. Aesthetic and visual sensitivity, individual creativity and experimentation are encouraged along with the development of photographic skills and techniques. Among the methods explored are toning, Polaroid transfers, hand coloring, Kodalith film, liquid photographic emulsion on art paper, collage and other processes. Prerequisite: FA 170 or permission of instructor. (Formerly *Photo-Graphics*.)

172. *Relief Printing* 3 s.h.
Fall, Spring

This course will introduce the basic tools and aesthetics of relief printing, a process of transferring ink from a raised surface. Using waterbased inks we will create works using cardboard, linoleum and wood. The historical significance of this area of the print will be discussed and investigated. A visit to a museum/printshop/or artist studio will be made in coordination with the studio portion of this course. (Formerly *Wood-Block Printing*.)

173. *Etching* 3 s.h.
Once a year

A comprehensive course including intaglio-printing processes such as drypoint, etching, aquatint, soft ground, lift ground and engraving to develop critical awareness and sensitivity to line and value as expressive elements in printmaking.

180. *Advanced Ceramic Workshop I* 3 s.h.
Fall, Spring

Investigation of three dimensional form and design through fabrication with clay. Prerequisites: FA 80, 80A, 82 or permission of instructor.

180A. *Advanced Ceramic Workshop II* 3 s.h.
Fall, Spring

Investigation of three dimensional form and design through fabrication with clay. Prerequisites: FA 80, 80A, 82, 180 or permission of instructor.

198. *New York Seminar* 3 s.h.
Periodically

Examination of the development of contemporary art in New York from 1945 to the present with emphasis on the past ten years. Classes meet at Hofstra and at museums, galleries, artists' studios and other locations where major traditional and transitional trends may be studied. Two formal essays and seminar attendance are required. Not open to freshmen.

199. *Senior Project* 3 s.h.
Fall, Spring
Individual supervised research project in student's major area including seminar analyses. Project is to be chosen with the approval of the instructor. Registration is limited to approved fine arts majors.

Foreign Languages

SEE COMPARATIVE LITERATURE AND LANGUAGES, PAGE 148; FRENCH, PAGE 196; ITALIAN, PAGE 219; SPANISH, PAGE 298.

Foundations of Education (FDED)

Due to changes in the New York State teacher certification regulations, students completing (finishing) degree programs after December 2003 and who are seeking Hofstra's recommendation for teacher certification, may have to complete additional requirements for their program of study.

Consult your faculty adviser for information pertaining to your particular program.

Administered by the Department of Foundations, Leadership and Policy Studies. Professor Osterman, *Chairperson*

Professors Barnes, Kottkamp, Shakeshaft, Smith; Associate Professors Duarte; Assistant Professor Scott.

Professor Smith, *Director*

A number of undergraduate courses are available in Foundations of Education, all of which may be taken as electives or as part of the requirements for the Educational Studies minor. For a description of the minor program, see page 162.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

110. *History of American Education* 3 s.h.
Every other year
The development of schooling in the context of the history of American education. Includes the development of textbooks and curriculum, educational ideas and practices, and proposals for reform.

111. *The American School* 3 s.h.
Fall, Spring
This course examines the school as an institution shaped by political, professional, economic, and social units. We examine these units as both distinct and intersecting elements that contribute to the social, philosophical, and historical lens. Hypotheses and analytical tools from a variety of the social sciences are employed as means of exposing and interpreting central features of the American public educational system. May be applied toward liberal arts credit.

112. *Politics of Education* 3 s.h.
Every other year
Analysis of the organization and control of the American school, including political influences upon education. Consideration of questions of educational and social policy affecting the schools.

114. *The Education of America's Minority Groups* 3 s.h.
Every other year
Analysis of the education afforded to minority groups, focusing on four major factors: (1) the response of the dominant Ameri-

can society to particular minority groups; (2) the educative milieu of the minority group including attention to family patterns, cultural values and the establishment of ethnic institutions; (3) the schooling provided to minority group members; and (4) the problem of intergroup education in the schools. The primary mode of inquiry will be through the several social and behavioral sciences.

115. *Introduction to Sociology of Education* 3 s.h.
Every other year
An examination of education as an institution using sociological concepts and research as the basic tools of exploration. Credit given for this course or SOC 101, not both.

120. *Aesthetics and Education* 3 s.h.
Fall
Examination of selected views about the nature and meaning of aesthetic experience, and the relationship between the educative values of aesthetic experience and schooling. Problems of pedagogy in connection with aesthetic education are considered. Students are required to attend concerts, exhibits and dramatic events.

121. *Existentialism and Education* 3 s.h.
Every other year
Analysis of some important aspects of the existentialist position as developed by selected representative spokesmen with emphasis on educational implications.

127. *Introduction to Philosophy of Education** 3 s.h.
Fall, Spring
Examination of the philosophic dimension of key educational ideas over time and exploration of the philosophical issues and assumptions involved in various classroom practices in the past and present. May be applied toward liberal arts credit.

129. *Current Problems in Education* 3 s.h.
Periodically
Critical examination of problems and issues—political, social, economic, religious, ideational, etc.—significant to education in contemporary democratic society.

130. *Topics in the History of American Education* 3 s.h.
Periodically
Historical studies of important themes and selected issues in education such as higher education, academic freedom, minority groups, and religion and education.

131. *Anthropology and Education* 3 s.h.
Every other year
Same as ANTH 131. May be applied toward liberal arts credit.

155, 156. *Seminar* 3 s.h. each
Periodically
Content varies and students should obtain information about the area of focus for a given semester before registering for the seminar. These seminars are designed to take advantage of the special competence of visiting professors and to facilitate special attention to particularly timely problems and issues, or issues of special concern to a specific group of students or faculty.

161, 162. *Reading* 1-3 s.h. each
Fall, Spring
Individual oral and written reports on a mutually determined reading or research program. Prerequisite: permission of instructor.

*FDED 127 is an introductory course in philosophy of education. Students with more than an introductory course in philosophy should consult a Foundations of Education adviser about substitutions.

Foundations, Leadership and Policy Studies (FLPS)

Areas of specialization are Administration and Policy Studies, Educational Administration, Educational Studies, and Foundations of Education. These areas are listed alphabetically.

Professor Osterman, *Chairperson*

French (FREN)

Administered by the Department of Romance Languages and Literatures. Professor Bussell-Thompson, *Chairperson*

Professors Powell, Schwab; Associate Professor Jean; Assistant Professor Loucif.

B.A. SPECIALIZATION IN FRENCH: 30 hours in the language and literature beyond FREN 4, distributed as follows: 21 credits in courses numbered 100-139 including FREN 114A, 115A and 116A, and 9 credits in courses numbered 140 and above, three of which must be in literature. An additional three credits of advanced literary study is required. It is recommended that French majors fulfill their additional three credits of literary study by taking a course in comparative literature.

Credit in a language course cannot be given to a student who has already earned credit for a higher-numbered course in the same language when the course numbers in question indicate level of comprehension and ability in the introductory and intermediate study of that language.

NOTE: language laboratory work is required in all modern foreign language courses on the 1, 2, 2R, 3, 4 level.

See complete B.A. requirements, page 79.

Both major and minor programs are supervised by a full-time faculty member of French, selected by the student.

A MINOR IN FRENCH consists of 18 semester hours above FREN 3, at least 6 hours in residence, including FREN 114 and FR 111, and at least 6 hours from culture (FREN 103A, 110, 113, 121, 122, 123, 124, 130A(1 s.h.)). While students are strongly encouraged to take FREN 107 each semester after FREN 4, only 1 credit can be applied to the minor.

PI DELTA PHI: a national French honor society, see page 76.

TEACHING OF HIGH SCHOOL FRENCH, see page 287.

FOR SUMMER STUDY IN FRANCE, see International Study, page 17.

LITERATURE IN TRANSLATION, see end of French course listings.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1. *Elementary French* 3 s.h.
Fall, Spring, Summer

Fundamentals of structure, sound system and vocabulary building for effective communication: speaking, understanding, reading and writing techniques are introduced.

1A. *Intensive Beginning French* 6 s.h.
Periodically

Intensive exposure to the materials of the first year of language study is covered in one semester. Credit not given for both 1A and 1 and/or 2.

2. *Elementary French* 3 s.h.

Fall, Spring, Summer
Sequel to FREN 1. Continued development of the fundamentals of structure, sound system and vocabulary building for effective

communication and understanding. Speaking, understanding, reading and writing techniques are further developed. Prerequisite: FREN 1 or equivalent.

2B. *French as a Second Romance Language* 3 s.h.
Fall

An accelerated course which presents the material of FREN 1 and 2 in one semester. Designed specifically for students who are studying French as their second romance language. Prerequisite: advanced study of Spanish, Italian, Portuguese, Latin or special permission of instructor.

2R. *Review of Elementary French* 3 s.h.
Fall, Spring

Intended for students who have had two years of French in high school, but who need review of the basics from FREN 1 and 2 before enrolling in FREN 3. No credit given for either FREN 1 or 2 if credit received for FREN 2R

3. *Intermediate French* 3 s.h.
Fall, Spring, Summer

Continued development of the fundamentals of structure, sound system, vocabulary building for effective communication and understanding. Speaking, understanding, reading and writing techniques are further developed. Prerequisite: FREN 2 or 2R or equivalent.

3A. *Intensive Intermediate French* 6 s.h.
Periodically

Intensive exposure to materials of the second year of language study. Prerequisite: FREN 1A, 2 or 2R. Credit given for 3A or 3 but not both and 3A or 4 but not both.

4. *Intermediate French* 3 s.h.
Fall, Spring, Summer

Places emphasis on attaining an integrated performance in speaking, listening, reading and writing at a high intermediate level of proficiency. Students are able to handle communicative tasks successfully and to write several paragraphs on a variety of topics with reasonable accuracy. Prerequisite: FREN 3 or equivalent.

101. *Intermediate French Grammar* 1 s.h.
Periodically

Five weeks of intensive work designed for students who have finished FREN 4 and want to take courses on the advanced French level. This mini-course prepares them to read and write more efficiently and progress more gainfully in courses numbered 105, 109, 110, 111, 112. To be taken prior to or simultaneously with 105 and/or 109. May not be taken with or after 111 and beyond. Prerequisite: FREN 4.

102. *Introductory Conversation* 1 s.h.
Periodically

Five weeks of intensive work on oral expression for students who have finished FREN 4 and wish to develop the ability to communicate orally with increasing fluency before going on to advanced courses. May be taken by itself or in conjunction with the other mini-courses 101, 130A, 138 and/or 105. May not be taken with or after 109, 100 or any other higher numbered course. Attendance is mandatory. Prerequisite: FREN 4.

102A. *Practical Translation* 1 s.h.
See course description, page 314.

103A. *Readings in Business I* 3 s.h.
Fall

Readings of French texts taken from standard business works and from contemporary business publications and materials. Concentration on the business terminology of France and Canada. Prerequisite: FREN 105 or 111 or 112, or permission of instructor.

- 104A. *Readings in Business II* 3 s.h.
See course description, page 314.
105. *Advanced Reading* 3 s.h.
Fall
Development of reading skills. While the foreign language, spoken and written, will be the basis of classwork and written assignments, the course will aim at attaining the stage of liberated reading. Prerequisite: FREN 4 or equivalent.
107. *Individualized French Aural-Oral Development* ½ s.h.
Fall, Spring
Development of skills in listening and speaking on a one-to-one basis with a native or bilingual speaker. Diagnosis of each problem at the onset of the course and assignment of phonetic exercises in the language laboratory. One 25-minute private session weekly with instructor. Prerequisite: FREN 4, or equivalent.
NOTE: may not be used to satisfy the language requirement; course may be repeated, but a maximum of 3 s.h. of this course may be applied toward the B.A. degree. Pass/D+/D/Fail grade only. No credit toward French major.
109. *Conversational French* 3 s.h.
Periodically
The student will develop ability to organize ideas, feelings, concepts and impart information through oral French. Topics for discussion chosen by students and instructor will be based upon appropriate classic and current materials. Direct experiences such as field trips and movies will be encouraged. Attendance is mandatory. Prerequisite: FREN 4.
110. *Advanced Conversation* 3 s.h.
Summer
Designed to develop ability to communicate in the French manner. Topics for discussion range from the literary to the sociological, from the cultural and aesthetic to the personal. Background readings may be classical or contemporary. Field trips are encouraged. Attendance is mandatory.
111. *Advanced French Grammar* 3 s.h.
Fall, Spring
Thorough review and refinement of the student's knowledge of French grammar and structure. Systematic exercises, compositions and illustrative analysis of reading passages.
112. *French Composition* 3 s.h.
Spring
Designed to improve the student's ability to write correct French. Stylistic and linguistic studies of selected texts. Exercises in French composition, outside readings.
113. *French Civilization* 3 s.h.
Spring
A survey of French culture through its arts and letters, scientific contributions and the development of its political and social institutions. Extensive use of audio-visual materials.
- 114A. *Introduction to French Literature I* 3 s.h.
Fall, Spring
Designed to foster literary appreciation through the analysis of texts from the *Chanson de Roland* through Corneille's *Cid*. Introduction to the basic vocabulary of literary analysis and to the French technique of "explication de texte." Prerequisites: FREN 105, 109 or 110, 111 or 112.
- 115A. *Introduction to French Literature II* 3 s.h.
Periodically
Introduction to French literature from the Classic Period to the early Romantics (mid-17th century to mid-19th century). Continued development of literary analysis through the method of "explication de texte." Prerequisite: FREN 114A. (Formerly 115; 115A, 116A.)
- 116A. *Introduction to French Literature III* 3 s.h.
Fall, Spring
Introduction to French literature from the late Romantics through the Realists to the present time. Continued development of literary analysis through the method of "explication de texte." Prerequisite: FREN 114A. (Formerly 115A, 116A.)
120. *Provence Today* 3 s.h.
Summer
Participation in the life of Provence through contact with artists, artisans, professionals, etc., as well as museums, cultural events and historical sites. Preparatory sessions and follow-up meetings to help students evaluate their experience. Prerequisite: FREN 4 or permission. Given as part of the Summer in France Program
121. *The Francophone Experience in Sub-Saharan Africa* 3 s.h.
See course description, page 314.
122. *The Francophone Experience in North Africa* 3 s.h.
See course description, page 314.
123. *The Francophone Experience in the Caribbean* 3 s.h.
See course description, page 314.
124. *Culture et Littérature Québécoises* (Culture and Literature of Quebec) 3 s.h.
See course description, page 314.
- 130A. *Aspects of French Culture* 1 s.h.
See course description, page 314.
138. *Intermediate French Phonetics* 1 s.h.
Fall, Spring
A five-week intensive study and practice of French phonetics for the intermediate student. Prerequisite: FREN 4. May not be taken concurrently with or following FREN 165.
- 140, 141, 142. *Readings in French*
Fall, Spring
140. 1 s.h.
141. 1 s.h.
142. 3 s.h.
Individualized reading courses to permit the student to pursue topic of special interest. Ordinarily open only to seniors. Prerequisite: permission of department chairperson.
144. *History of the French Language* 1 s.h.
Periodically
A five-week intensive course in French philology. Emphasis on the development of the French vowel and verb system. Previous study of Latin is helpful. Prerequisites: intermediate or advanced French phonetics; FREN 111, 114A or permission.
145. *French Transformational Grammar* 1 s.h.
See course description, page 314.
- Prerequisite for advanced literature courses numbered above 150: 114A or 115A.*
151. *Satire in Various Genres* 3 s.h.
Periodically
Study of satire attempts to determine how satirical expression in diverse works of the modern period differs from that in the earlier period. Focuses on differences as may occur in such texts by Voltaire and those by Ionesco.
155. *Love Literature through the Ages* 3 s.h.
Periodically
The theme of love—literary treatment and attitudes revealed in representative works from its romantic courtly expression in the

12th century (*Tristan et Iseult*) to its anti-romantic manifestations in the 20th century.

160. *Translation* 3 s.h.
Periodically

Introduction to the theory of translation and the contrastive structures of English and French. Extensive work in translating from French into English as well as exercises in translating English into French. Texts used for translation come from journalism, nonfiction and literature, and focus on culture-specific traits as revealed through language. Prerequisites: FREN 111 or 112; 114A, each with a minimum grade of B, or permission.

162. *Workshop in the French Theater* 3 s.h.
Periodically

Systematic study of the traditions of French theater from the Middle Ages to the modern day. Regular classroom scene study. Students read texts from a literary and a dramatic perspective. Emphasis on the critical reading of a dramatic text as well as phonetic and gestural interpretation of written texts. Students present a final dramatic project in pairs or groups. Prerequisites: FREN 109 or 110 or 138, and 114A, or permission of instructor.

165. *French Phonetic Development* 3 s.h.
Summer

Systematic study of sounds and intonation patterns. Class sessions will include explanation of the formation of sounds and the phonology rules as well as group exercises. Regular laboratory sessions will be assigned to drill and reinforce classroom work. Weekly phonetic dictations and tape recordings will check student's progress in acquiring the correct speech habits necessary for effective communication. Prerequisites: FREN 109 or 110, FREN 111 or 112.

166. *Advanced French Grammar and Phonetics* 3 s.h.
Summer

In-depth review of the structure of the French language with focus on problems of phonetics, phonology, morphology and syntax. Special attention will be paid to oral expression and to elements of diglossia encountered in everyday communication. Class time will be devoted to drills, exercises and presentations prepared by the students. Prerequisite: FREN 111 or 112. Usually given as part of the Summer in France Program.

172. *The Theater of Corneille, Racine and Moliere* 3 s.h.
Periodically

Origin and development of the 17th-century classical theater. Love and honor in tragedy, farce to high comedy in Moliere as revealed through discussions of selected works by the three playwrights.

183. *Society Under Attack* 3 s.h.
Periodically

Social criticism, reformist doctrines, moral and idealist tendencies from the Philosophes through the Existentialists.

191. *From Romanticism to Symbolism* 3 s.h.
Periodically

The 19th-century development of Romanticism and Symbolism as revealed in the theater and in poetry from Victor Hugo to Baudelaire, Rimbaud and Mallarmé.

192. *19th-Century French Novel and Short Story* 3 s.h.
Periodically

Topics selected from the following: the romantic novel, realism and naturalism in the novel, the novel and history, the short story in the 19th century.

195. *Modern French Theater* 3 s.h.
Periodically

Exploration of major dramatic theories and techniques since the romantic age. Reading of representative works from Musset to Ionesco and Arrabal.

196. *Modern French Poetry* 3 s.h.
Periodically

Major poets and poetic movements of the 20th century from Valéry, Dada and surrealism through Prévert, Cocteau, St. John Perse, Michaux, Ponge, Emanuel, et al.

197. *20th-Century French Novel and Short Story* 3 s.h.
Periodically

Topics selected from the following: the first generation, up to World War I, novels of childhood and adolescence, novels of the human condition, the "new novel."

198. *Littérature Québécoise (Literature of Quebec)* 3 s.h.
See course description, page 314.

199. *Honors Essay* 3 s.h.
Fall, Spring

The research for and the writing of a substantial essay in the field of French language and literature. Open only to senior French majors who desire to graduate with departmental honors and who secure, before registration, written permission of the instructor who will supervise the essay.

LITERATURE IN TRANSLATION (FRLT): 41, 42, 43, 44, 45, 46, 47, 48, 49, 52, 60, 120, 121.

41. *Me, Myself, and I: Autobiographical Expressions from the French #* 3 s.h.

Periodically
An investigation of various forms of lifewriting translated from French, including autobiography, memoirs, diary, and correspondence. Texts, read in English, represent a wide variety of writings by women and men, from the Renaissance through the late twentieth century, from Francophonie as well as from metropolitan France.

42. *Heroines Exotic and Erotic: Romantic Women in 19th-Century French Narrative Prose #* 3 s.h.

Periodically
Critical examination of certain tenets of Romanticism as they reflect and form images of women in 19th-century French narrative prose. The impact and continuing influence of these images of femininity on contemporary ideals of womanhood are analyzed. Readings include texts by major 19th-century French novelists like Sand, Stendhal, Balzac, Flaubert, etc. All works are read in English. Prerequisite: sophomore standing or above.

43. *Decolonizing the Mind: Contemporary Literature from Africa to Southeast Asia #* 3 s.h.

Periodically
Examination of literary voices from Francophone countries including Senegal, Algeria, Tunisia. Topics include decolonization and the African identity, the search for self, the contradictions of life in the colonies and racism. Readings include works by Memmi, Ben Jelloun, Snow-Fall, Senghor. All works are read and discussed in English. (Formerly *Decolonizing the mind: Contemporary Literature from Africa, Southeast Asia, and the Caribbean; Decolonizing the Mind: Contemporary Literature from Africa and the Caribbean; Decolonizing the Mind; Francophone Literature from Africa and the Caribbean.*)

44. *Major Works of French Literature to 1800* 3 s.h.
Periodically

Selected from among major authors of France from the middle ages to the 18th century. No credit toward major in French but may be used to fulfill part of the B.A. language or humanities requirement. All works are read and discussed in English.

45. *Major Works of French Literature Since 1800* 3 s.h.
Periodically

Selected from among major authors of France of the 19th and 20th centuries. No credit toward major in French but may be used to fulfill part of the B.A. language or humanities requirement. All works are read and discussed in English.

46. *Sex, Gender and Love in 20th-Century French Prose #* 3 s.h.
Periodically

Selected narrative and experimental texts examined to show the deconstruction and evolution of traditional concepts of sex, gender and love in 20th-century French literature. Gender reading techniques constitute the principal methodological approach, along with close textual analysis. Readings include works by Andre Gide, Colette, Simone de Beauvoir, Marguerite Duras, Luce Irigaray, Julia Kristeva, Monique Wittig and Jean Genet. All works are read and discussed in English.

47. *French Literature and the World of Music #* 3 s.h.
Periodically

Study of the intersection of narrative and musical phenomena as manifested in the French literary tradition. No formal musical knowledge required but a sensitivity to musical and literary forms and techniques is exploited and formalized. Texts represent French literature from the Middle Ages to modern day. All works are read and discussed in English.

48. *The Knightly Heritage in French Literature #* 3 s.h.
Periodically

Examination of the knightly themes established in the 12th-century courtly romances *Yvain* and *Tristan and Iseut*, and their various embodiments in major literary works of the 17th and 18th centuries: the "splendid century" of French Classicism, and the age of Enlightenment and pre-Romanticism. Readings include works by Chrétien de Troyes, Corneille, Racine, Lafayette, Prévoist, Voltaire, Staël. All works are read and discussed in English.

49. *Irony in Modern French Literature #* 3 s.h.
Periodically

Examination of post-Nietzschean French literature showing the failure of the romantic ideal and the virtual impossibility of attaining and maintaining a heroic status for the modern protagonist. While archetypal criticism is the principal means of approaching the works, other methods are encouraged. Literary works by Gide, Malraux, Sartre, Giraudoux, Camus, Ionesco, Beckett, Robbe-Grillet and the surrealists. Critical theory by Northrup Frye. All works are read and discussed in English.

50. *Reconstructing French Caribbean Identities #* 3 s.h.
See course description, page 314.

52. *Sovereignty and Quebec: A Literary and Cultural Perspective #* 3 s.h.
See course description, page 314.

60. *Modern French Feminist Thought* 3 s.h.
Periodically

Exploration of 20th-century French feminism through works of theory and literature. No credit toward French major but may be used to fulfill part of the B.A. language requirement. All works are read and discussed in English.

120, 121. *Special Topics in French Literature and Civilization* 3 s.h. each

120: January, Spring; 121: Once a year
Movements, ideas and issues of special interest such as Dada and surrealism, the rebel and the outsider in modern French literature, history and literature; the idea of Utopia, etc. May be repeated when topics vary. No credit toward French major, but may be used to fulfill part of the B.A. language requirement. All works are read and discussed in English.

General Business (GBUS)

Administered by the Department of Management, Entrepreneurship, and General Business. Associate Professor Charnov, *Chairperson*

NONBUSINESS MAJORS MAY CHOOSE A MINOR IN GENERAL BUSINESS that is designed for those students who are interested in entering the profit or not-for-profit job market. This minor consists of the successful completion of a minimum of 18–19 semester hours of course work with grades C– or better, *under faculty advisement by the Department of Management, Entrepreneurship, and General Business; and with the approval of that department chairperson;* with at least 9 semester hours in residence. The requirements are: any six of the following courses: ACCT 101, BCIS 14, BLAW 20, FIN 101, IB 150, MGT 101, MKT 101, QM 1. See course listings for prerequisites.

A completed minor in general business will be listed on the student's transcript.

No School of Business courses may be taken on a Pass/D+ /D/Fail basis.

No student pursuing a bachelor's degree other than a Bachelor of Business Administration degree may complete more than 30 semester hours of School of Business course work without permission of the School of Business Dean's Office. The student must have the appropriate form approved by and filed with the major and minor departments.

All minors must be declared at the Office of Academic Records.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1. *Foundations of Business* 3 s.h.
Fall, Spring

An overview of business functions in the context of the overall business environment. Concepts from all fields of business including management, marketing, finance, accounting, business computer information systems, international business and business law. The impact of societal, political, legal and ethical considerations is emphasized. **NOTE:** designed as an orientation course for nonbusiness students or for business students who have not chosen their majors. May not be used to satisfy management elective specialization requirements.

151, 152. *Readings in Business Administration* 1-3 s.h. each
Periodically

Assigned readings for undergraduate students on a tutorial basis. Oral or written reports may be required. Prerequisites: six credits in a student's major and permission of department chairperson.

157, A-Z. *Seminar: Special Topics in General Business* 3 s.h.
Periodically

An advanced in-depth treatment of special topics. Current topics are explored through a variety of methods, such as lectures, projects and case studies. Prerequisites: MGT 101, junior class standing or above, and any additional prerequisites as stated in the course schedule.

As individual subjects are selected, each is assigned a letter (A-Z) which is affixed to the course number. Students may take up to two of these courses to fulfill their major requirements so long as each seminar has a different letter designation.

#Core course

165. *Managing International Development* 3 s.h.
Periodically

Explore the strategic role of corporate and government planners performing in regional industrial development. Interdisciplinary consideration is given to effective policy development and implementation in emerging markets (different regions could be offered each semester). Examples include the United States and other geographic areas. Problems of specific industries are examined. Prerequisites: MGT 101, QM 1 or equivalent, and junior class standing or above. (Formerly MGT 125, *Industrial Development*; MGT 165, *Managing Industrial Development*.)

170. *Small Business Administration* 3 s.h.
Fall, Spring

Advanced seminar in theory and practice of management and consulting; student groups with varied business majors assist local businesses under faculty guidance; periodic student and instructor project discussion; groups develop final written analysis and recommendations. Prerequisites: A minimum grade-point average of 3.0 overall, MGT 110, MKT 101, ACCT 102, BCIS 10 or 14, FIN 101 or permission of department chairperson.

180. *Seminar: Business Policy* 3 s.h.
Fall, Spring

A capstone integrative course for all functional areas focusing on technological issues, executive ethics, and corporate social and environmental responsibilities for domestic and international organizations. Knowledge and competencies developed in other business courses are synthesized with a computer simulation of top management policy decisions under conditions of uncertainty. Prerequisites: business majors with senior class standing and MGT 101, FIN 101, MKT 101.

180H. *Seminar: Business Policy - Honors* 3 s.h.
Once a year

An honors version of the Zarb School of Business' capstone integrative course for all functional areas, focusing on technological issues, executive ethics, and corporate social and environmental responsibilities for domestic and international organizations. Knowledge and competencies developed in other business courses are synthesized with a complex computer simulation of top management policy decisions under conditions of uncertainty, and the analysis of strategic management cases in which the actual companies' top executives participate. Significant written and oral communication skills are emphasized. Prerequisites: business majors with senior class standing and MGT 101, FIN 101, MKT 101. Students must have successfully completed 88 or more credits before entering this course. Most valuable to the student if taken during last semester at Hofstra. Students must be enrolled in the University Honors College or have a 3.4 GPA and the permission of the department chair to enroll in this course. Satisfies same B.B.A. requirements as regular sections of GBUS 180.

Geography (GEOG)

Administered by the Department of Economics/Geography.
Associate Professor Kozlov, *Chairperson*

Associate Professor Saff; Assistant Professor Rodrigue.

B.A. SPECIALIZATION IN GEOGRAPHY: a minimum of 27 semester hours in geography including GEOG 1, 2, and 191; ECO 165 and GEOL 1C may be included in these 27 semester hours. Fifteen semester hours in a cognate field selected from anthropology, economics, history, political science, philosophy, sociology, biology, geology, mathematics or international business. Students with approval of the department may select an interdepartmental cognate field. Also required, three semester hours of statistics.

See complete B.A. requirements, page 79.

A MINOR IN GEOGRAPHY consists of the successful completion of

18 semester hours of geography, at least six hours in residence.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

NOTE: GEOG 1 and 2 are not prerequisites for other geography courses.

1. *World Regional Geography* 3 s.h.
Periodically

An introductory course that offers students an overview of the major regions of the world, their characteristics, and the contemporary human and environmental issues and challenges faced by each. The course is organized along lines of economic development, with coverage of the more developed regions preceding that of less developed parts of the world. (Formerly *Environment and Society*.)

2. *Human Geography* 3 s.h.
Periodically

Human geography focuses on how society drives environmental/geographical issues. This course is an in-depth investigation of the key sub-fields of human geography, such as: Population Geography (demography and migration), Political Geography (nation states), Economic Geography (the structure and location of economic activities), Cultural Geography (the world's major cultural regions) and Urban and Regional Geography (the structure of cities and their hinterlands). Each of these sub-disciplines are examined to show how they enhance our spatial understanding of the world. This course is a requirement for geography majors and complements GEOG 3.

3. *Geographic Systems: An Introduction to Topical Geography* # 3 s.h.

Once a year
An introduction to a variety of geographic systems around the world and to methods used by geographers to study them. Course provides students with the conceptual basis for understanding and interpreting a wide variety of world events and the relationships that exist among world regions. Focus is on topics rather than on regions. Students examine different aspects of geography, ranging from the study of physical landscape to many of the human geographic sub-disciplines such as political geography and population.

60. *Introduction to Geographic Information Systems* 3 s.h.
See course description, page 314.

80. *Transport Geography* # 3 s.h.
See course description, page 314.

100. *Honors Essay* 3 s.h.
Fall, Spring

Research for and the writing of a substantial essay in the field of geography. Open only to senior geography majors who are eligible for and desire to graduate with departmental honors and who secure, before registration, written permission of the department chairperson.

102. *Population, Resources and Environment* # 3 s.h.
Periodically

Analyzes the relationships among population growth, factors influencing human migration, resource distribution and utilization, and the environmental impact of the human presence at various geographic scales ranging from local to global.

103. *Urban Geography* 3 s.h.
Periodically

Introduction to the key features of urban geography, including the distribution, structure and hierarchy of towns and cities, the

#Core course

economic basis for cities, the growth of world cities, urban policy and urban problems, and urban and regional planning. While the scope is global, the emphasis is on the development of the United States urban landscape. (Formerly *Towns and Cities*.)

104. *Special Topics in Geography* 3 s.h.
See course description, page 315.

106. *Urbanization in the Developing World*# 3 s.h.
See course description, page 315.

110. *Geography of the United States and Canada* 3 s.h.
Periodically
Geographic factors affecting the exploration, settlement, population distribution, land use, and economic development of the United States and Canada.

113C. *The Geography of East and Southeast Asia* # 3 s.h.
See course description, page 315.

122. *Western Europe* 3 s.h.
Periodically
Analysis of the geographic factors affecting the history and development of Western Europe and its parts. Attention is given to the problems and goals of the European Economic Community (E.E.C.) and the European Free Trade Association (E.F.T.A.).

123. *Eastern Europe and the Republics of the Former Soviet Union* 3 s.h.
Periodically
Study of the environment and peoples of the republics of the former U.S.S.R. and Yugoslavia, and of Poland, the Baltic states, Czech Republic, Slovakia, Hungary, Romania, Bulgaria and Albania. Emphasis on past territorial changes and recent social, economic and political transitions. (Formerly *U.S.S.R. and East Central Europe*.)

131. *Japan* 3 s.h.
Periodically
Description and analysis of the geographic aspects of the modernization of Japan, with emphasis on the economic, population and urban geography of the country.

135. *Economic Geography* 3 s.h.
Periodically
Theory and analysis of the location of economic activities; distribution and hierarchy of central places; land use; delineation, structure and growth of economic regions. May be used towards the 30 semester hours in economics required of economics majors.

140. *Geography of Latin America* # 3 s.h.
See course description, page 315.

141. *Geography of the Caribbean* 3 s.h.
See course description, page 315.

145. *Geography of Africa* # 3 s.h.
Once a year
Study of Africa's diverse human and physical landscapes, focusing on the interaction between the two. Analysis of the cultural, environmental, economic, social, political and population geography of the continent. Both North Africa and sub-Saharan Africa, the continent's two major regions, are featured prominently and examples are drawn from many of Africa's more than 50 individual nation-states.

151, 152, 153, 154. *Readings in Geography* 1-3 s.h. each
Periodically
Intensive reading, oral, and written work focusing on a regional and/or topical subdiscipline of geography. Open only to students interested in pursuing advanced work in geography and who have arranged to work with a supervising faculty member. Prerequisite: a combination of any two semesters of geography courses offered at Hofstra.

160. *Intermediate Geographic Informations Systems* 3 s.h.
See course description, page 315.

190. *Internship in Geography* 3 s.h.
Periodically
This work-study program aims at providing students with an opportunity to apply academic and theoretical knowledge to practical situations. A minimum of 84 hours of work in an approved academic, government, non-government or research institution is combined with weekly classroom meetings, reading and writing assignments including an in-depth term paper that situates the internship experience with the broader framework of theoretical geographical scholarship. Prerequisites: successful completion of at least 18 s.h. of geography with a geography GPA of 3.0 or above. May be taken on a Pass/D+/D/Fail basis.

191. *Seminar: Geographic Methodology* 3 s.h.
Periodically
Introduction to geographic research. Sources of material and techniques of geographic analysis. Readings in past and recent geographic literature. Preparation and presentation of a report is required.

193. *Seminar: Economic Geography* 3 s.h.
Periodically
Review of history and the literature. Methodology for investigating economic, geographic problems. Oral and written reports are required. Prerequisite: GEOG 135 or permission of instructor.

Geology (GEOL)

Professor Radcliffe, *Chairperson*

Professors Merguerian, Wolff; Associate Professor Bennington; Adjunct Professors Chervkapi, Liebling, Rockwell; Adjunct Associate Professor Hess-Tanquay, Sichko; Adjunct Assistant Professors Dieffenbach, Gibbons; Adjunct Instructor G. Bennington.

B.S. SPECIALIZATION IN GEOLOGY: candidates for graduation must fulfill the following requirements:

1. The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra.
2. At least 65 semester hours must be completed in the liberal arts, excluding courses in geology.
3. There are two requirements that must ordinarily be completed in residence at Hofstra: 15 semester hours in the major field of specialization and the last 30 semester hours. The 15 semester hours need not be included within the last 30 hours.
4. And the following general requirements:

	<i>Sem. Hrs.</i>
ENGL 1-2 or placement examination*	6
Humanities electives	6
Social science electives	6

(The humanities and social science electives must be satisfied with approved core courses, see page 82.)

Foreign language: fulfillment of one of the following options:

- a) complete 2 semesters of a language not previously studied;
- b) a student who continues the study of a foreign language begun before coming to Hofstra must take the language placement test (administered by the Language Laboratory) and fulfill one of the options listed below:
 - 1) place above level 4 of that language;
 - 2) complete level 4 of that language;
 - 3) complete 2 semesters of that language.

*See University Degree Requirements, page 71.

#Core course

Credit will not be given toward completion of the language requirement or toward graduation for any language course taken below the level of placement in that language.

5. The fulfillment of the following science requirements:
 - a) 30 semester hours in geology, chosen in consultation with the chairperson.
 - b) CHEM 3A, 3B, 4A, 4B; PHYS 1A & 2A, 1B & 2B.
 - c) 6 semester hours in mathematics (including calculus).
 - d) 6 semester hours in computer science, or 6 semester hours in biology, or 3 semester hours in computer science and 3 semester hours in biology.

B.S. IN ENVIRONMENTAL RESOURCES, see page 188.

B.A. SPECIALIZATION IN GEOLOGY: 30 semester hours in geology including GEOL 1C and 2C. Students select geology courses, under advisement. Introductory science courses are recommended. This program is intended for liberal arts-oriented students and those planning to teach earth science in high schools.

See complete B.A. requirements, page 79.

TEACHING OF HIGH SCHOOL EARTH SCIENCE AND GENERAL SCIENCE, see page 290.

A MINOR IN GEOLOGY consists of the successful completion of 18 semester hours including GEOL 1C, chosen in consultation with an adviser in the department. At least six hours must be in residence.

NOTE: since geology is a synthesis of natural sciences and engineering with applications to the earth, majors of other departments are encouraged to enroll in those advanced courses which represent the application of their particular discipline to earth phenomena. The basic requirement of elementary geology in many instances may be waived.

Students select one of the following introductory course sequences to satisfy the *University science requirement*: all degree candidates: 1C and 2C;

B.B.A. candidates only: 1C and one of the following 3, 4, 7, 8, 9, 10 or 11.

COURSES

In addition to semester notations next to each course, a selection of courses is offered during January and Summer sessions. Consult the *January* and *Summer Sessions* bulletins for these schedules.

1C. *Physical Geological Science* # 3 s.h.
Fall, Spring
Origin and evolution of the universe, elements, solar system, earth, continents, oceans and atmosphere. The relationship of principal earth components (rocks and minerals) to materials useful to man. Effects of surface processes (rivers, deserts, glaciation, soils) on contemporary problems, including water supply, world hunger and world climate. Correlation of subsurface forces with the related geologic hazards of vulcanism and earthquakes. (2 hours lecture, 2 hours laboratory.) Credit given for this course or GEOL 11 or New College NGG 3.

2C. *Historical Geological Science* # 3 s.h.
Spring
Origin of life and evolution of the earth throughout geologic time. Geochronology and the Geologic Time Scale. Ancient climates. Structural and thermal history of the Precambrian, Paleozoic, Mesozoic and Cenozoic Eras. Sea-floor spreading, polar wandering, continental drift, geosynclines, continental accretion, and orogenesis. Origin and evolution of major crustal features are discussed on the basis of modern Plate Tectonic Theory. (2 hours lecture, 2 hours laboratory.)

3. *Astrogeology—Planetary Science* # 3 s.h.
Periodically

Utilizing the latest advances in scientific research, this course introduces students to the history of space travel and analysis of extra-terrestrial data. Lecture topics include the internal structure and evolution of the earth-moon system in comparison to the other planets in our solar system. Laboratories include terrestrial sample analysis, cartographic studies, video and computer-based analysis. (2 hours lecture, 2 hours laboratory.) Open to science and nonscience students. (Formerly *Introduction to Astrogeology*.)

4. *Introduction to Gemology and Gemstones* 3 s.h.
Periodically

Study of gem minerals, a specialized branch of chemical and physical mineralogy. Crystal structure, atomic distribution, chemical composition and interrelated physical properties of gem minerals including hardness, color, brilliance, refraction, cleavage and other identifying properties are emphasized. The role of gems as rock forming minerals including the genetic origin in igneous, sedimentary and metamorphic rocks and process environments are discussed. Testing procedures for the identification of common gemstones including visual properties, optical measurements and x-ray diffraction analysis. A weekend field trip to view the National Gem Collection at the Smithsonian Institution. (2 hours lecture, 2 hours laboratory.)

5. *Environmental Geology and Natural Hazards* # 3 s.h.
Fall

Considers the geological processes that affect the formation and natural evolution of modern landscapes. Once modified and developed for human habitation, these natural processes became geological hazards—floods, soil and climate changes, hurricanes, landslides, earthquakes, coastal erosion, and volcanic eruptions. Discusses the need for risk assessment and alternate land use management strategies. (2 hours lecture, 2 hours laboratory.) (Formerly GEOL 5C.)

6. *Introduction to Dinosaurs and the Mesozoic World* # 3 s.h.
Summer

Drawing on the latest geological and paleontological research, this course introduces the student to the scientific methods and thinking used to reconstruct the history of the Earth. Although the focus of the course is on dinosaurs and the characteristics of the Mesozoic world in which they lived, students learn how fundamental scientific theories such as evolution and plate tectonics provide the framework for interpreting the geologic past. Lecture topics also include the history of dinosaur paleontology, the climate and flora of the Mesozoic, the evolution of birds, plate tectonics, and the riddle of the extinction of the dinosaurs. Field trips strongly recommended. (2 hours lecture, 2 hours laboratory.)

7, 8. *Earth Science I#*, *II#* 3 s.h. each
Summer

(2 hours lecture, 2 hours laboratory.) GEOL 7 is an elective for geology majors, not for major credit. GEOL 7 and 8 satisfies liberal arts, science and earth science core requirements for teachers.

7: considers the origin of earth, its relation to other members of the solar system, atmosphere, climate, and ocean.

8: considers minerals, rocks, the origin and evolution of land-forms, earthquakes and plate tectonics. Credit given for GEOL 8 or 1C or 11.

9. *Introduction to Earth Resources* 3 s.h.
January

Analysis of the distribution, quality and quantity of U.S. mineral, energy and water resources (iron, aluminum, bauxite, coal, uranium, etc.). The interplay of the social, environmental, eco-

conomic and political factors which affect the utilization of these resources. A discussion of the economic and environmental considerations that influence the exploitation, conservation or recycling of these resources and the selection of alternate energy sources. (3 hours lecture.)

10. *Environmental Geology* 3 s.h.
Periodically

Effects of human activities on geologic forces and features and vice versa; planned and accidental changes in developmental patterns of soil, streams, estuaries and coastlines; analysis of human attempts to modify the actions of storms, floods, droughts, avalanches, earthquakes and volcanoes; geologic problems of economic and energy resources, urban and industrial expansion and of air, water and soil pollution. Field trips strongly recommended. (3 hours lecture.)

11. *Physical Geology* 3 s.h.
Periodically

Origin, evolution and geologic cycles of minerals and rocks. Concerns the processes and features on the surface of the earth and how they have been modified by water, ice, wind and man. Deals with geologic principles applied to problems of energy and economic resources, natural hazards (earthquake, beach erosion, floods, etc.), urban expansion and environmental effects from pollution. Field trips strongly recommended. (3 hours lecture.) Credit given for this course or GEOL 1C or New College NGG 3.

12. *Earth History and Crustal Evolution* 3 s.h.
Periodically

Principles and methods used in the analysis and interpretation of ancient life and earth history—its paleogeography, paleontology and paleoclimates. Includes the study of continents, oceans and ocean basins in relation to continental drift and seafloor spreading (the global tectonics). Considers the origin of the earth, its crust, atmosphere, oceans and life. Field trips strongly recommended. (3 hours lecture.) Prerequisite: GEOL 1C or 11 or permission of instructor.

18. *Geological Cartographic Analysis* 3 s.h.
Every other Fall

Integrated lecture and laboratory course focuses on classical and computer-based graphical and visual techniques employed in the geological sciences in the context of the history of art and expression. In lecture, the history of maps and map making and growth of 3-D perspective drawing are fully explored. Labs are based on measurement and interpretation leading to problem solving and analysis in the subdisciplines of stratigraphy, structure, petrology, field geology, maps, and geochemistry. Course includes both mechanical and computer-aided design elements to develop skills and techniques necessary in analyzing the geologic structure and history of the earth's crust. (2 hours lecture, 3 hours laboratory.) May not be taken on a Pass/D+/D/Fail basis. (Formerly *Geological Cartographic Techniques*.)

19. *Structural Geology* 3 s.h.
Every other Fall

Basic elements of stress and strain and their relationship to the development of natural structures in the earth's crust. The mechanism and results of folding and faulting of sedimentary, metamorphic and igneous rocks during mountain building set in the context of the new global plate tectonic theories. Laboratory case histories include interpretation of structures found in the Appalachian and Cordilleran mountain belts. (2 hours lecture, 3

hours laboratory.) Prerequisite: GEOL 2C or permission of instructor.

20. *Introduction to Field Methods* 3 s.h.
Every other Spring

Principles and methods of geological field investigations of sedimentary, metamorphic and igneous rocks. Use and interpretation of topographic maps, aerial photos, geological instruments and the methods and logistics of producing professional geologic maps and reports. (2 hours lecture, 3 hours laboratory.) Prerequisites: GEOL 2C and 19, or permission of instructor. No liberal arts credit.

31. *Crystallography and Mineralogy* 3 s.h.
Every other Fall

Classification and identification of over 100 common economic and rock-forming minerals based on their composition, external crystal morphology, and physical and chemical characteristics. Includes the study of geometric and atomic crystal models and the principles and interpretation of x-ray diffraction techniques. (2 hours lecture, 3 hours laboratory.) Prerequisite or corequisite: GEOL 1C or CHEM 3A, 3B or permission of instructor.

33. *Environmental Geomorphology* 3 s.h.
Every other Spring

Origin and development of constructional, depositional and erosional landforms with regard to geologic process (uplift, mass wasting, earthquakes, etc.) and their effect on engineering activities through urban and industrial expansion. Includes the examination and interpretation of features from topographic and geologic maps and aerial photos, and considers the criteria necessary for basic regional planning. (2 hours lecture, 3 hours laboratory.) Prerequisite or corequisite: GEOL 1C or 8.

100. *Honors Research Essay* 3 s.h.
Fall, Spring

Research, analysis, compilation and writing of a scientific paper based on an independent research study which is approved by the faculty prior to registration. The paper must be of publishable quality, and the results of the study will be presented orally at a seminar. Open only to geology seniors who have been selected by the department.

104. *Excursions in Field Geology* 3 s.h.
Periodically

Examination of rock outcrops to determine their geological origin or economic mineral-energy resource potential during travel. Three days of on-campus lecture and labs for discussion of the field area and an introduction to analytical field techniques and instrumentation, and one week of daily field observations at outcrops, mines or oil fields during travel. Independent projects will be developed and submitted for final evaluation. Probable areas for travel include New England and New York, the southeastern states, the Gulf Coast or a Caribbean island. Prerequisite: open to upper-class students only and permission of instructor. No liberal arts credit.

115. *Lunar and Planetary Geology* 3 s.h.
Periodically

Interpretation of topographic and geologic features of the Moon, Mars and other planets based on the analysis of the latest available data; the origin, history and geologic activity of extraterrestrial bodies; the physical properties and motions of the solar system; comparisons of Earth features and principles with those of the extraterrestrial bodies. Includes the analysis of NASA photos, maps and other data. (2 hours lecture, 3 hours laboratory.) Prerequisite: GEOL 1C or 7 or permission of instructor.

120. *Introduction to Geophysics* 3 s.h.
Periodically

Principles of mathematics and physics as applied to Earth processes that affect the continental and ocean crust, asthenosphere, mantle and core. The application of geophysical techniques for oil and mineral exploration through the analysis and interpretation of data collected through seismic surveys, geomagnetic measurements, electrical methods of well logging, and gravity

and heat flow measurements. The application of geophysics to earthquake prediction, isostatic adjustments and geothermal energy resources. (2 hours lecture, 3 hours laboratory.) Prerequisite or corequisite: MATH 10 or 19. No liberal arts credit.

121. *Hydrology* 3 s.h.

Every other Spring

Discussion of surface and ground waters. Hydrologic principles of water movement. Economic importance and water potential of the United States, with particular attention to the problems relating to Long Island. Field trips and laboratory analysis of aquifers. (2 hours lecture, 3 hours laboratory.) Prerequisite: GEOL 1C or permission of department.

123. *General Oceanography* 3 s.h.

Periodically

Analysis of the physical and chemical characteristics of ocean water and the factors affecting its distribution. Includes surface and subsurface current patterns, coastal processes, characteristics of clastic and carbonate environments, and the topographic features and sediment distribution patterns of ocean basins.

131. *Optical Mineralogy* 3 s.h.

Every other Fall

Principles and use of the polarizing microscope in the analysis of mineral grains and rock thin-sections. Identification of these minerals is based on their optical and crystallographic properties determined from either oil immersion or permanent-mount methods. (2 hours lecture, 3 hours laboratory.) Prerequisite or corequisite: GEOL 1C or 31 or CHEM 3A, 3B. No liberal arts credit.

132. *Geochemistry* 3 s.h.

Every other Spring

Principles and problems related to distribution of elements in the universe and planets; evolution of galaxies, stars and the solar system; structure and composition of the earth; crystal chemistry of minerals; magmatic differentiation and phase equilibria; weathering and solution chemistry of sedimentary rocks; clay mineralogy, metamorphic facies; and the origin of the atmosphere and hydrosphere (2 hours lecture, 3 hours laboratory.) Prerequisites: CHEM 3A & 4A, 3B & 4B.

133. *Igneous and Metamorphic Petrology and Petrography* 3 s.h.

Every other year

Formation, composition and classification based on analysis of hand specimens and thin-sections. Includes studies of experimental solid-liquid phase equilibria and mineral stabilities of silicate systems. Laboratory techniques concern the description and identification of these rocks and their textural features. (2 hours lecture, 3 hours laboratory.) Prerequisite: GEOL 131.

133F. *Field Trips in Petrology* 1 s.h.

See course description, page 315.

134A. *Field Geology* 3-6 s.h.

Once a year

Field studies and detailed mapping. Frequent side trips will be taken to mines and other industrial concerns employing the services of a geologist as well as visits to other geology departments in the area of study. Students will be expected to work out detailed geology of an area on an individual basis with formal reports required. This course is intended specifically for field camp involving intensive studies in a limited area.

135. *Sedimentation* 3 s.h.

Every other year

Principles related to the weathering, erosion, transport and deposition of sediments. The analysis and interpretation of source-area indicators, solution and abrasion history, bedding features and flow conditions, and depositional environments based on the analysis of sediments and sedimentary rocks. Statistical parameters used to distinguish sediments from different environments. (2 hours lecture, 3 hours laboratory.) Prerequisite: GEOL 2C or permission of instructor.

136. *Marine Geology* 3 s.h.

Periodically

Discussion of the classification and evaluation of coastlines and their associated features and processes. A review of the geomorphic features of ocean basins (shelves, ridges, trenches, abyssal plains), the earth's interior and its lithospheric "plates." The geophysical characteristics of these features based on seismology, structure, density, heat flow and magnetism. The evidence for continental drift and sea-floor spreading, and the inferences about past, present and future patterns of global plate tectonics.

137. *Invertebrate Paleontology* 3 s.h.

Every other Fall

Fossil invertebrate life including classification, geological significance, and phylogenetic relationship in light of evolutionary theory. (2 hours lecture, 3 hours laboratory.) Prerequisite: GEOL 2C or BIO 1 & 2 or permission of instructor.

139. *Advanced Geochemistry* 3 s.h.

Periodically

In-depth discussion of geochemical analytical techniques and instrumentation, geochemical exploration principles and techniques, computer refinement of geochemical data. Individual student seminars combined with individual student research projects designed to develop library and laboratory research investigative skills in an integrated manner. Prerequisite: GEOL 132.

140. *Biostratigraphy* 3 s.h.

Periodically

Stratigraphic principles and nomenclature used in the analysis of boundary problems of the physical and faunal rock systems of North America. Includes Precambrian geology and the physical aspects and faunal correlation of cratonal, geosynclinal, and continental sediments of the Paleozoic, Mesozoic and Cenozoic eras. (2 hours lecture, 3 hours laboratory.) Prerequisite: GEOL 137.

141. *Economic Resources and Geologic Computing* 3 s.h.

Every other year

The origin, distribution, economic significance and conservation of selected metallic, nonmetallic, and energy resources, and their future development. Includes the analysis and identification of these resources, and modern computing techniques utilized in their economic valuation. (2 hours lecture, 3 hours laboratory.) (Formerly *Economic Mineral Resources*.)

144. *Petroleum Geology* 3 s.h.

Periodically

The origin and evaluation of oil and gas, reservoir fluids and reservoir rock dynamics. Reviews drilling methods for completed and producing wells, logging methods for subsurface exploration. (2 hours lecture, 3 hours laboratory.) Prerequisite, one of the following: GEOL 1C, 2C, 9, 10, 136.

146. *Principles of Physical Stratigraphy* 3 s.h.

Every other Fall

Correlation, relative and absolute dating techniques and the utilization of stratigraphic maps. The analysis of factors influencing the deposition of recent sediments in terrigenous and carbonate environments, and the resultant features that can be used for interpretation of ancient rock sequences. Environments include alluvial fans and fluvial systems, deltas and coastal plains, lagoons and barrier islands, carbonate shelves and coral reefs, continental slope and deep ocean sediments. (2 hours lecture, 2 hours laboratory.) Prerequisite: GEOL 2C or permission of instructor.

151, 152. *Special Problems* 2 s.h. each

Fall, Spring

Work of an independent and advanced nature in mineralogy, petrology, sedimentation or economic geology. Prerequisite: permission of instructor and chairperson. May be repeated for credit with approval of the chairperson.