

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 courses are listed alphabetically.

Professor Warner, *Chairperson*

Assistant Professor Marsicovetere, *Assistant to the Chairperson*

Professors Fonfeder, Katz, Lehman; Associate Professors Bass, Maccarrone, Martin, Slavin, Weisel; Special Associate Professor Finkelstein; Assistant Professors Holtzman, Jones, Manteen, Schain; Special Assistant Professors Venuti, Yun; Instructors Basile, Burke.

THE CHAYKIN DISTINGUISHED TEACHING PROFESSORSHIP IN ACCOUNTING is held by Professor Katz. See page 424.

THE CHAYKIN ENDOWED CHAIR IN ACCOUNTING is held by Dean Polimeni. See page 424.

Accounting (ACCT)

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

MISSION STATEMENT

Consistent with the mission of the Frank G. Zarb School of Business at Hofstra University, the Department of Accounting, Taxation, and Business Law utilizes its strong reputation for excellence in business education. This is combined with a dedicated faculty with professional affiliations, to prepare individuals for careers as accounting and tax professionals in a variety of settings. These include private industry, public accounting, government, and not-for-profit organizations.

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, accounting and taxation, accounting information systems, 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. 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.

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, accounting and taxation, accounting information systems, 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 changed its requirements for admission to the CPA examination effective August 2004. Proposed New York State legislation may change the effective date of this requirement. Students should check with their major adviser.) 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 1, 2, 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, 131, 133, 143 & 144; BLAW 24 and electives chosen under advisement.

Recommended sequence:

Freshman year	ACCT 1 and 2
Sophomore year-1st semester	ACCT 123
-2nd semester	ACCT 124
Junior year-1st or 2nd semester	ACCT 125, 131
Senior year-1st semester	ACCT 143
-2nd semester	ACCT 144
-1st or 2nd semester	ACCT 133

See complete B.B.A. requirements, page 104.

MINORS IN BUSINESS, see page 105.

The Accounting Department sponsors an internship program available to above-average public accounting majors. Students are eligible for the program in their senior year. Qualifying seniors are placed in accounting positions with leading public account-

ing firms during the January Session. Summer internships are also available.

MASTER OF BUSINESS ADMINISTRATION PROGRAMS, see page 107.

MASTER OF SCIENCE PROGRAMS, see page 111.

BUSINESS HONOR SOCIETIES, see pages 69, 77.

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. *Fundamentals of Accounting* 3 s.h. Fall, Spring

Introductory course in the principles and theory of accounting. Topics include the financial model in the form of the accounting equation, the accounting cycle including principles of double entry bookkeeping, design and preparation of books of accounts, construction of financial statements, inventory costing, accounting for receivables and payables, fixed assets, payrolls, payroll taxes and ethical issues in accounting. No credit for both this course and ACCT 201.

2. *Fundamentals of Accounting* 3 s.h. Fall, Spring

Accounting for partnership and corporate forms of business organizations. Topics include introduction to cost accounting, budgeting and managerial concepts, analysis and interpretation of financial statements, ethics in the accounting profession, accounting for international foreign currency transactions and analysis of cash flows for decision making. Prerequisite: ACCT 1. No credit for both this course and ACCT 201.

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, sophomore 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, junior class standing or above.

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 con-

cepts, 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 124, BCIS 10, 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 integrity 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 124, BCIS 10, 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, BCIS 10, 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 124, BCIS 10, QM 1, junior class standing or above.

143 & 144. *Income Tax Accounting* 3 s.h. each Fall, Spring

Analysis of the Federal Income Tax laws, their meaning, application, ethical and international considerations relating to individuals, partnerships, corporations and fiduciaries. Prerequisites: ACCT 124, senior class standing.

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 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, permission of department chairperson, 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.

201. *Financial Accounting and Reporting** 3 s.h.
Fall, Spring
Overview of financial accounting which includes the analysis and preparation of financial statements, ethical considerations, cash flow analysis, partnerships, corporate accounting, investment in stocks, and international transactions. (Formerly *Survey of Accounting*.)

216. *Tax Accounting** 3 s.h.
Fall, Spring
Introduction to basic business and personal federal income tax. Study and discussion of specific aspects of business transactions including executive compensation, fringe benefits, and the creation, purchase, reorganization and disposal of businesses. Course emphasizes the impact of taxation on business decisions. Prerequisite: successful completion of ACCT 201 or approved equivalent. Not open to students who have taken an income tax course.

220. *Research and Procedures in Federal Income Taxation** 3 s.h.
Periodically
Administrative machinery of IRS, research materials in federal taxation, rights of taxpayers, appeals procedures, litigation and compromise. Prerequisite: ACCT 143 or 216 or approved equivalent.

221. *Income Tax Problems of Partnerships, Estates and Trusts** 3 s.h.
Periodically
Study of Federal and New York State income tax provisions relative to partnerships, estates and trusts with emphasis on problems that may arise and the extent to which these entries are adapted to the objectives of taxpayers. Prerequisite: ACCT 143 or 216 or approved equivalent.

222. *Federal Income Taxation of the Corporation and Its Shareholders** 3 s.h.
Periodically
Advanced coverage of income taxation of corporations, Subchapter S election and effect of distributions and redemptions on the corporation and its stockholders. Prerequisite: ACCT 143 or 216 or approved equivalent.

223. *Federal Income Tax Aspects of Liquidations, Mergers and Reorganizations** 3 s.h.
Periodically
Intensive study of Federal Income Tax treatment of corporate liquidations, reorganizations and divisions. Problems relating to collapsible corporations, affiliated groups, foreign corporations and foreign-sourced income are covered. Prerequisite: ACCT 216 or 222 or approved equivalent.

224. *Estate and Gift Tax** 3 s.h.
Periodically
Provisions of the Internal Revenue Code relative to estate and gift taxations are analyzed and interpreted in terms of the regulations and rulings of the Internal Revenue Service and court decisions. The New York State provisions relative to estate and gift tax are covered. Prerequisite: ACCT 143 or 216 or approved equivalent.

225. *Deferred Compensation and Pension Plans** 3 s.h.
Periodically
Law and regulations relating to employee pension, annuity, profit-sharing, stock bonus and bond purchase plans, including plans for self-employed individuals. The Pension and Reform Act of 1974 will receive special attention. In addition, the Federal Income Tax law with regard to deferred compensation procedures and plans including stock options, both statutory and nonstatutory, and restricted stock payments are analyzed. Prerequisite: ACCT 143 or 216 or approved equivalent.

226. *State and Local Taxation** 3 s.h.
Periodically
A comprehensive analysis of local and state taxes affecting business. Emphasis on the New York State sales and general business taxes, rent taxes and the New York State franchise tax. Includes a study of state and local personal income taxes with emphasis on modification of the federal income tax base, as well as an analysis of taxes levied on business payrolls. Prerequisite: ACCT 143 or 216 or approved equivalent. (Formerly *General Business Taxation*.)

227. *Taxation of International Transactions** 3 s.h.
Periodically
Course explores issues in international taxation such as jurisdiction to tax, source rules for income and expense, foreign tax credit, controlled foreign corporations, foreign earnings exclusion, tax treaties, and other related international tax issues pertaining to ethical considerations. International taxation of individuals also addressed. Prerequisite: ACCT 144 or 222 or approved equivalent.

230. *Managerial Accounting and Reporting** 3 s.h.
Fall, Spring
Development and presentation of accounting information for managerial decision making in a global economy. Topics include budgeting, forecasting, profit analysis and planning, performance evaluation, transfer pricing, capital budgeting, goal congruence and measurement of organizational performance, and cost control. Environmental factors and ethical implications are integrated throughout the course. Prerequisite: ACCT 2 or 201 or approved equivalent. (Formerly *Advanced Managerial Accounting*.)

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.

232. *Accounting in a Global Environment** 3 s.h.
Periodically
Discussion of contemporary debates regarding harmonization of accounting standards and analysis of the differences among countries regarding their economic and social practices and corresponding accounting systems. Specific countries and specific auditing, accounting, and taxation practices and theories are discussed. Prerequisite: ACCT 2 or 201 or approved equivalent.
234. *Advanced Auditing** 3 s.h.
Spring
Philosophy, postulates and concepts of auditing theory and their relationship to recent developments in auditing practice such as the expansion of management advisory services, greater use of electronic data processing and computerized management information systems are analyzed. The impact on the profession of the American Institute of Certified Public Accountants' pronouncements on auditing standards. Prerequisite: ACCT 133 or approved equivalent. No credit for both this course and 235.
242. *Advanced Accounting Theory and Practice** 3 s.h.
Once a year
Statements and pronouncements of the Financial Accounting Standards Board, the American Institute of Certified Public Accountants, the American Accounting Association and the Securities and Exchange Commission are analyzed. Advanced theory and problem-solving in partnership formation, operation and termination; and mergers, acquisitions and the resultant financial reporting are studied. Computerized accounting information systems are also analyzed. Prerequisites: ACCT 124 or approved equivalent, and BCIS 10 or BCIS 201. Not open to students who have taken ACCT 125 or equivalent or ACCT 241.
243. *Government and Not-for-Profit Accounting** 3 s.h.
Periodically
Examination of accounting principles unique to governmental and not-for-profit organizations. Topics include the operation of the governmental funds and account groups, the GASB and FASB Standards, and the accounting for not-for-profit entities such as hospitals, colleges and universities. International perspectives and ethical issues are integrated throughout. Prerequisite: ACCT 124 or approved equivalent.
250. *Seminar in Advanced Contemporary Accounting Theory** 3 s.h.
Periodically
Critical examination of current thought in accounting; relationships between accounting and other business areas including economics, law, manufacturing, etc. Ethical, social and political influences on accounting theory and practice are discussed. Required of all M.B.A. candidates in public accounting. Prerequisite: completion of all prerequisite and preliminary accounting courses. (Formerly *Seminar in Contemporary Accounting*.)
- 257, 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 230, permission of department chairperson, 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 do *not* qualify for CPA examination credit.
304. *Advanced Research Seminar in Business** 3 s.h.
Fall, Spring
(NOTE: ACCT 306-308 may be offered in place of 304.) Students write an integrative paper on an assigned topic based on secondary research and then formulate a written primary data research design to investigate a specific key issue. They must formulate research questions and hypotheses, construct survey instruments and experimental designs, draft sample plans, outline data handling procedures, and prepare a comprehensive research proposal, furnishing justifications for its theoretical as well as practical significance. An oral presentation of each project is required at the conclusion of the semester. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of the department chairperson.
305. *M.B.A. Honors Research Thesis in Accounting** 3-6 s.h.
Periodically
Student selects and designs an integrative research project with the approval and guidance of a faculty member in the area of specialization. Student is required to justify the project's significance within a decision-making framework and define the management applications of the research findings. An oral report of the research findings is presented to a faculty committee. With joint permission of the department chairperson and thesis adviser, a student may expand the M.B.A. Honors Research Thesis from 3 to 6 s.h.; the additional 3 s.h. may be counted toward elective requirements in the area of concentration. Prerequisites: minimum cumulative grade point average of 3.5, completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson.
306. *Case Focused Research Seminar in Business** 3 s.h.
Periodically
Emphasis on multiple functional areas that are taught in the Zarb School of Business. A case study approach is utilized in this course, and students are challenged to understand how decisions and policies from different functional areas are integrated within an organization. Students present detailed recommendations toward resolution of complex business problems within an industry or company which must be supported by appropriate documentation of research and analysis. Written and oral reports are required. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson. Same as BCIS 306, FIN 306, IB 306, MGT 306, MKT 306.
307. *Consulting Research Project** 3 s.h.
Periodically
Under the supervision of an instructor and working singularly or in a small group, students are assigned to a client organization for one semester. The students and the client organization to which they are assigned will identify the client's specific problems and objectives. Students design and complete one or more integrative consulting projects involving various business principles and conduct research. A written consulting report and an oral presentation are made to a faculty committee and the senior management of the organization. Prerequisites: minimum cumulative grade point average of 3.5, completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of the senior assistant dean and director of graduate programs and the department chairperson. Same as BCIS 307, FIN 307, IB 307, MGT 307, MKT 307.
308. *Integrative Business Simulation** 3 s.h.
Periodically
Course utilizes a comprehensive and integrative computer simulation to create a variety of complex multifunctional business problems to which students must respond under varying conditions.

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.

†Full-time students may take IB 219 as a corequisite.

tions of uncertainty. A team-based approach to decision making is used in resolving problems created by the computer model. Students are required to provide detailed reports on decisions made and to provide quantitative and qualitative justifications for their decisions. These justifications must be supported through the use of research and must be presented orally and in writing. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson. Same as BCIS 308, FIN 308, IB 308, MGT 308, MKT 308. (Formerly *Computer Simulation (Management Game) in Accounting*.)

309. *Research Seminar*†† 3 s.h.
Periodically

Supervised research in the field of accounting and/or taxation on an approved topic and the preparation of a formal paper. Students formulate a basic methodological design based on QM 210 knowledge or other methodological approaches and formulate a research question; review prior work; where appropriate, specify the sample data and techniques; and recommend an appropriate methodology. An oral presentation of the paper is required at the conclusion of the semester. Prerequisites: completion of 21 s.h., including QM 210, in the area of concentration.

330. *Graduate Internship** 3 s.h.
Fall, Spring

A work-study program open to graduate students who are specializing in accounting or taxation.

Students work a minimum of 100 hours in the semester for selected business organizations in their area of specialization. A written evaluation of a complex relevant managerial decision is prepared by the student at the completion of the course. Most internship opportunities involve some form of monetary remuneration. Prerequisites: all core competency courses or approved equivalents, 24 graduate-level credits with a 3.3 average and permission of the department chairperson. (Formerly GBUS 330).

401. *Financial Reporting and Managerial Accounting*** 4 s.h.
Periodically

An intensive and comprehensive overview of basic financial statements and how these and other accounting information are utilized for managerial decision making in a global economy. Topics include, but not limited to, forecasting, profit analysis and planning, capital budgeting, measurement of organizational performance and cost of internal controls. Environmental responsibilities of corporations and the ethical dimensions of utilizing financial data for decision making are included.

Accounting and Taxation

MASTER OF SCIENCE PROGRAMS, see page 111.

Accounting Information Systems

MASTER OF SCIENCE PROGRAMS, see page 111.

Administration and Policy Studies (APS)

Administered by the Department of Foundations, Leadership and Policy Studies. Associate Professor Osterman, *Chairperson*

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.

244. *Aging, Public Policy and the Law* 3 s.h.
Once a year

Legal and policy issues arising out of the "graying" of America are examined. Current government programs and legal developments affecting the elderly are analyzed. Emphasis on areas where changes in policy is required to meet evolving social needs of the aging population. Topics include income maintenance through government benefits and private pensions; the health care system; long-term care in nursing homes and other settings, and control over decision-making by and for the frail elderly.

245. *Legal Aspects of Managing Healthcare Programs for the Aging* 3 s.h.
Periodically

Examination of legal issues commonly encountered by administrators of health care facilities and programs serving older people. Among topics discussed are the legal aspects of government regulation and corporate governance of the program, contractual reimbursement, tax and staffing issues, liability, quality assurance, risk management matters, and patient care policies and procedures.

251. *Readings in Administration* 3 s.h.
Fall, Spring, Summer

Research and readings on topics of interest to the student and agreed upon by the instructor. Prerequisite: permission of instructor.

294, 295. *Administrative Internship* 3 s.h. each
Fall, Spring, Summer

A cooperative administrative experience at a community agency, college or university where students observe, study and report on agency policies, procedures and services. Monthly seminars for considering problems confronted in the field are held. Prerequisite: department approval.

370. *Introduction to Higher Education in the United States* 3 s.h.
Fall

Reviews the historical development and current status of higher education in the United States and provides an overview of some important issues in higher education in our society: finance, government relationships, accountability; equity, administrative complexity; collective bargaining, professionalism.

371. *Economics and Finance of Higher Education* 3 s.h.
Spring

Provides prospective administrators with a conceptual and practical understanding of fiscal and economic concerns which directly and indirectly influence institutions of higher education. Examination of the role of postsecondary institutions in the economic growth and development of society, the influence of socioeconomic and political conditions and changes on the maintenance and growth of postsecondary institutions; major contemporary fiscal issues; and basic principles and processes of fiscal management.

372. *Governance in Higher Education* 3 s.h.
Fall

Examination of the structure and processes surrounding decision-making in American colleges and universities and review theories and methods for evaluating and improving the effectiveness and efficiency of various governance mechanisms. Particular

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**Open only to matriculated Zarb School of Business E.M.B.A. students.

††Open only to matriculated M.S. in Accounting, Accounting and Taxation, Accounting Information Systems, and Taxation students.

attention given to the role and influence of governing boards, administrators, faculty, students, governmental agencies and community.

373. *The Student in American Higher Education* 3 s.h.
Spring

Examination of student enrollment patterns in higher education in the United States; explores the relationship between demographic, economic and social characteristics such as age, academic aptitude, gender, race, religion, ethnology, social attitudes, socioeconomic background and career expectations on student behavior, attitude, and motivation; and assesses the impact of these changes on educational policies, programs and services.

374. *Teaching and Learning in Higher Education* 3 s.h.
Fall

Focus on the relationship between student characteristics and the instructional process, examines the impact of organizational structure and processes on teaching and learning, and explores alternative ways to enhance student learning. Prerequisite: APS 373.

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.

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

See complete B.A. requirements, page 82.

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.

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, 141, 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 82.

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.
See course description, page 402.
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 Silver, *Chairperson*

Associate Professors Mwaria, Varisco; Assistant Professor Kasmir; Instructors Fiorini, Leonard.

LAMBDA ALPHA: a national anthropology honor society, see page 70.

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 82.

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 and recent research on living primates. Concepts of both human nature and culture are defined in evolutionary terms and critiqued with an eye to unravelling the distinctively human capacities for conjugal and extended family life, for symbolic communication and for social contracts that establish the minimal conditions of political order.
3. *The Primitive World and Its Transformations* # 3 s.h.
Fall, Spring
The concept of culture is subjected to an intensive critical overview, as the organizing idea of anthropology and as a fundamental component of the modern worldview. Themes to be addressed include: evolution of man's capacity for culture; major humanistic and scientific approaches to understanding culture and the great and ongoing transformation from so-called "primitive" to civilized ways of life. Institutional structure, symbolic texture and the feel of other cultures are conveyed through careful analysis of ethnographic classics and films. Credit given for this course or ANTH 2, not both.
4. *The Human Condition in Ethnographic Perspective* # 3 s.h.
Fall, Spring
Introduces the student to ethnography as the distinctive mode of inquiry in cultural anthropology and illustrates the utility of an ethnographic perspective in the analysis of social processes. The potential of an ethnographic approach to further a truly cross-cultural understanding of economic, political, psychological, religious and aesthetic problems is evaluated through intensive discussion of ethnographic case studies around the world.
12. *Social Organization of Non-Western Societies* 3 s.h.
Every other year
Advanced study emphasizing detailed analysis of social and community structures and political, economic and religious

#Core course

institutions. Materials are selected from a wide range of primitive and other nonwestern societies. Prerequisite: ANTH 1.

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.

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.
 Every other year
 Peoples and cultures of aboriginal North America. Indians and Indian affairs under U.S. administration. Contemporary problems of the American Indian minority. (Formerly *The American Indian*.)

102. *Peoples and Cultures of Africa* 3 s.h.
 Every other year
 Peoples and cultures of Africa, south of the Sahara. The social, economic and political organization of representative African societies in their historical setting. The input of colonialism.

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. *Peoples and Cultures of Latin America* 3 s.h.
 Every other year
 Survey of American Indian, Iberian and African origins of the cultures and societies of Mexico and Central America, South America and the Caribbean. Race relations and class relations in Latin America. Intensive treatment of selected modern community studies in Latin-American societies.

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 in Applied Anthropology* # 3 s.h.
 Every other year
 Development of the field of applied anthropology in socio-economic analysis of third-world development, preservation of cultures of indigenous peoples, and conservation of biodiversity in underdeveloped regions. Focus on problems of planned or

directed socio-economic change, transfer of technology, causes of famine and emerging ecological problems in Latin America, Middle East, Africa and Asia. Application of anthropological methods in international development agencies (including World Bank, USAID, UNDP) and environmental conservation organizations. (Formerly *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.
 See course description, page 402.

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. (Formerly *Nuclear Civilization*.)

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.

#Core course

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. (Formerly *Race and Culture Contacts*.)
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*.)
200. *Fundamentals of Anthropology* 3 s.h.
Once a year
Scope and aims of modern anthropology. Human origins, race, prehistory, language, culture and the diversity of human societies. General principles and theory.
214. *Aging in Cross-Cultural Perspective* 3 s.h.
Periodically
A comparative overview of the origins and development of institutions and customs pertaining to aging in a variety of cultural settings, both western and nonwestern, traditional and modern.
215. *Introduction to Gerontology: Aging in American Life* 3 s.h.
Periodically
Explanation of the social and cultural dimensions of aging in America. Included are societal assumptions about age, family contexts, work environments, aging through popular literature and culture, and social policy issues.
218. *People and Cultures of Latin America* 3 s.h.
Periodically
An integrated study of the institutions, culture groups and literary traditions of Spanish America. Social and economic functions of the "hacienda," Church, politics, university and others in combination with literary works that exemplify these

topics. Specific regions or countries are examined individually. Same as SPAN 218.

250. *Readings in Anthropology* 1-3 s.h.
Periodically

Independent study on special topics in anthropology. Prerequisite: permission of chairperson.

288. *Advanced Seminar in Anthropology* 3 s.h.
Periodically

Course deals with innovative or advanced topics and may include field projects. Students prepare individual projects on a research theme. May be repeated for credit when topics vary.

Applied Economics

SEE PAGE 187.

Applied Physics

SEE PAGE 325.

Applied Science, Associate in

SEE PAGE 196.

Arabic (ARAB)

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

1, 2. *Elementary Arabic* 3 s.h. each
Every other year

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.

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; Instructor 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 100-level art history courses, plus FA 8, 9.

See complete B.A. requirements, page 82.

TEACHING OF ART, see page 361.

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 page 267.

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.

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. (Formerly AH 3,4, *Introduction to Art History*.)

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. (Formerly AH 3,4, *Introduction to Art History*.)

5. *Form in the Art-Work, I #* 3 s.h.
See course description, page 402.

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.
See course description, page 402.

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. (Formerly *Art of Ancient Mediterranean Civilizations*.)

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.

#Core course

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*.
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 402.
170. *Museum Studies* 3 s.h.
Periodically
Under the supervision of the Director of the Emily Lowe Gallery, 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 402.
188. *Age of Rembrandt* 3 s.h.
See course description, page 402.
192. *Workshop in Art History* 3 s.h.
See course description, page 402.

Asian Studies (AS ST)

Assistant Professor of Chinese Chiu, *Chairperson, Asian Studies Advisory Committee*

The Asian Studies major is designed to provide the student with a broad interdisciplinary understanding of the traditional and modern civilizations of India, China and Japan. To assure that the student will receive training in a specific discipline, besides studying Asian courses for the major, students are further required to complete a minor (18 hours) in the discipline of their choice.

Each student will choose a core of four courses, concentrating on either traditional or contemporary Asia, and also take a seminar as part of the major. Study of an Asian language is strongly recommended. Chinese and Japanese courses are offered at Hofstra. Courses in these languages beyond level 4 may be counted toward the major requirements.

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. <i>Asian Art</i> , 3 s.h. |
| ANTH | 103. <i>Peoples & Cultures of Asia</i> , 3 s.h. |
| CLL | 149. <i>Asian Literature: India</i> , 3 s.h. |
| | 150. <i>Asian Literature</i> , 3 s.h. |
| ECO | 112. <i>Economic Development of China</i> , 3 s.h. |
| | 114. <i>Japan's Modern Economy</i> , 3 s.h. |
| GEOG | 113. <i>Economic Geography of East & Southeast Asia</i> , 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 113. *Economic 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.
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.
- PSC 102. *Mysticism & the Spiritual Quest*, 3 s.h.
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.

See complete B.A. requirements, page 82.

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.
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 the senior year.
- 209A. *Summer Asian Affairs Institute* 3 s.h.
Once a year
A four-week interdisciplinary course for secondary social studies teachers designed to facilitate teaching cultural universals with the visual arts. Selected Asian and African areas are linked by selected religious, political, economic and social universals with appropriate traditional and modern illustrations. For further information, contact the Coordinator, Hofstra Social Science Association, Prof. D'Innocenzo, History Department. Pass/Fail grade only.

ASIAN STUDIES COMMITTEE

- David J. Chiu, *Assistant Professor*, Chinese
Neil Donahue, *Professor*, Comparative Literature and Languages
David Flynn, *Professor*, Management and General Business
Warren Frisina, *Assistant Professor*, Philosophy
Paul Harper, *Professor Emeritus*, Political Science
Ronald Janssen, *Associate Professor*, English
Keun S. Lee, *Associate Professor*, Marketing and International Business
James Neelankavil, *Professor*, Marketing and International Business
Sabina Sawhney, *Assistant Professor*, English
Bridget Welsh, *Instructor*, Political Science
Yong Zhang, *Assistant Professor*, Marketing and International Business

Astronomy (ASTR)

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

Staff

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.

Athletic Training

SEE PHYSICAL EDUCATION AND SPORT SCIENCES

*Depending on course content.

#Core course

Audio/Video/Film (AVF)

Associate Professor Del Gaudio, *Chairperson*

Professor Delamater; Associate Professor Kaplan; Assistant Professors Franklin, Gershon, Katzman, Mazzocco, Miller, Murillo; Special Assistant Professors Monti, Morrow.

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 104. 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.

(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.

- 9 s.h.—SCO 2, 3, 4
- 12 s.h.—AVF 11, 21, 41, 111
- 6 s.h.—Chosen from AVF 91, 131, 152, 161
- 9 s.h.—Chosen under advisement from SPCM 157, any AVF course, or any MASS course

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

- 9 s.h.—SCO 2, 3, 4
- 19 s.h.—AVF 24, 26, 44, 64 or 84, 164 & 165
- 3 s.h.—Chosen from SPCM 157 or any MASS course
- 6 s.h.—Any AVF course chosen under advisement

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

- 9 s.h.—SCO 2, 3, 4
- 9 s.h.—AVF 10, 27, 47
- 6 s.h.—Chosen from AVF 137A, 137B, 157, 158, or 177
- 9 s.h.—Chosen from AVF 60, 80, or any 100-level AVF course, chosen under advisement
- 3-4 s.h.—Chosen from AVF 21, 24, 26, JRNL 1, SPCM 157, or any MASS course, chosen under advisement

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:

- a) Student must be at least of sophomore standing,
- b) Student must have obtained a minimum grade of B- in AVF 24 and any subsequent production courses, and
- c) 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:

- a) Student must complete at least 124 semester hours (130 semester hours in the Video/Television and Business specialization),
- b) Student must work closely with adviser to ensure fulfillment of all B.S. requirements as listed on page 117,
- c) Student must fulfill the B.S. requirements as listed under the School of Communication on page 117, and

- d) 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.

- 12 s.h.—SCO 2, 3, 4, SPCM 157 (see page 118)
- 15 s.h.—ENGL 102 or LING 101, DRAM 3, 9, 190 and a literature course, chosen under advisement
- 6 s.h.—PHYS 6, CSC 5
- 19 s.h.—AVF 14 (6 s.h.), 21, 24, 26, 44
- 3 s.h.—AVF 64 or 84
- 15 s.h.—AVF 106, 134, 144, 164 & 165
- 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.

- 12 s.h.—SCO 2, 3, 4, SPCM 157 (see page 118)
- 15 s.h.—ENGL 102 or LING 101, DRAM 3, 9, 190, and a literature course, chosen under advisement
- 6 s.h.—PHYS 6, CSC 5
- 22 s.h.—AVF 10, 14 (6 s.h.), 24, 27, 44, 47
- 6 s.h.—AVF 60 or 80, 64 or 84
- 15 s.h.—AVF 110, 144 or 168, 164 & 165, 167
- 6 s.h.—Chosen from AVF 84, 134, 137A, 137B, 144, 157 or 158
- 3 s.h.—Chosen from MASS 11 or JRNL 21
- 6 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: 100 s.h.

- 12 s.h.—SCO 2, 3, 4; SPCM 157 (see page 118)
- 6 s.h.—ENGL 30; ENGL 102 or LING 101, chosen under advisement
- 9 s.h.—ECO 1, 2, and one other ECO course, chosen under advisement
- 3 s.h.—Chosen from SPCM 1 or 7.
- 6 s.h.—Chosen from any literature courses, chosen under advisement
- 19 s.h.—AVF 14 (6 s.h.), 24, 26, 44, 64 or 84
- 9 s.h.—AVF 134, 164 & 165
- 6 s.h.—Chosen from AVF courses, chosen under advisement
- 3 s.h.—Chosen from MASS 11 or JRNL 21
- 6 s.h.—Chosen from School of Communication courses, outside of AVF department, chosen under advisement
- 21 s.h.—Chosen from Zarb School of Business courses, chosen under advisement.

A **Minor in Audio/Video/Film** consists of the successful completion of 18 semester hours of courses, chosen under advisement. At least 6 hours must be taken 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.

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*.)

#Core course

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. 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, 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.
See course description, page 410.
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 makeup.
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. Prerequisites: AVF 26 and 44 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. Prerequisite: 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.
See course description, page 410.

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. Prerequisites: AVF 24, 26, 134. 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 410.
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 & 165. *Advanced Television Production* 3 s.h. each
Fall, Spring
Advanced practicums dealing with creative production in aesthetic and technical phases. Emphasis in 164 is on the production of commercials, promotions, and public service announcements. Open to juniors and seniors only. Emphasis in 165 is on the production of long-form television. Open to seniors only. Admission to class by permission of department. Prerequisites: AVF 64 or 84. No liberal arts credit. (Formerly COMM 122A, 122B, *Advanced Television Production I, II*.)
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. 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*.)
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 68, 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 60.

Bilingualism

Administered by the Department of Romance Languages and Literatures. Associate Professor Schwab, *Chairperson*

The graduate bilingualism programs are:

I. Master of Arts Program

A bilingual and bicultural understanding of the Hispanic and American ways of life. This specialization is designed for persons holding a baccalaureate degree and for Spanish speaking professionals who have the necessary linguistic skills to perform their course work in Spanish and in English.

The candidate will take a placement examination, which will be used for purposes of advisement only, and must complete 36 hours of interdisciplinary courses as follows: SPAN 212, 213, 214, 215, 216; one 200-level course in each of the following areas: literature, linguistics, history, cross-cultural materials and pedagogical orientation. A master's comprehensive examination is required.

Professor Rodriguez, *Coordinator*

II. Master of Science in Education Programs

A. Bilingual Elementary Education, see page 199.

B. Bilingual Secondary Education, see page 360.

See complete graduate information, page 73.

III. Doctoral Programs

Programs with bilingual/bicultural concentrations leading to the Ed.D. or Ph.D. in Reading, Language, and Cognition. See page 348.

See complete doctoral information, page 79.

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 85.
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 3 hours of chemistry courses at the 100-level; 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.

162. *Molecular Biochemistry I* 3 s.h.
Fall

Mechanisms of enzyme action (the active site); physical-organic interpretation of biochemical reaction mechanisms; enzyme kinetics; 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 Pumo, *Chairperson*

Associate Professor Anderson, *Director of Graduate Programs*

Professor Kaplan; Associate Professors Anderson, Daniel, Erb, Morrissey, Sanford, Seagull, Willey; Assistant Professors Burke, Clendenning.

THE DONALD E. AXINN DISTINGUISHED PROFESSORSHIP IN ECOLOGY AND CONSERVATION AT HOFSTRA UNIVERSITY. See page 425.

B.A. SPECIALIZATION IN BIOLOGY: students should apply to the

*See University Degree Requirements, page 66.

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)

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 82.

TEACHING OF HIGH SCHOOL BIOLOGY AND GENERAL SCIENCE, see page 363.

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 82) Core course requirement: (for listing of core courses, see page 84) 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. 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)

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.

POST-BACCALAUREATE PREMEDICAL CERTIFICATE PROGRAM

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 330.

PREMEDICAL, PREEDENTAL, 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

*See University Degree Requirements, page 66.

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 70.

BIOCHEMISTRY PROGRAM AND COURSES, see page 150.

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

MASTER OF ARTS IN BIOLOGY: the applicant must have a bachelor's degree (or equivalent) in biology. Any undergraduate deficiencies (including physics, mathematics and organic chemistry) must be made up before the completion of 15 semester hours of graduate work. Graduate students are expected to receive a grade of B or better in their biology courses. All students should meet with the Director of Graduate Programs at least once each semester.

Candidates must complete 33 semester hours of graduate work including an essay (BIO 303). At least 27 credits must be in biology courses numbered 200 or higher; up to 6 credits of electives may be chosen with permission of the Director of Graduate Programs.

In addition to a general course of study, concentrations are available in electron microscopy, marine and freshwater biology, molecular biology, and oral biology.

ELECTRON MICROSCOPY: this program is designed to provide a comprehensive two-year training experience in postgraduate biology and electron microscopy. Graduates of this program will be prepared to undertake routine maintenance of transmission and scanning electron microscopes, carry out a wide range of sophisticated investigative techniques and assist at all levels with biological research and analysis of research data.

Students should have an adequate background in histology, cell biology and anatomy. A semester of internship (equivalent to 3 semester hours) is required to complete this program.

MARINE AND FRESHWATER BIOLOGY: this program enables students to focus their studies on aspects of marine biology, limnology and aquaculture. In addition to the general M.A. requirements listed above, all students must accumulate 18 semester hours from the following courses: BIO 201, 204, 205, 207A, 208, 229, 270, 307, 2183, 2184 (for restrictions on 2000-level courses, see page 76). All students are expected to complete their essay (303) on a subject related to marine or freshwater biology.

MOLECULAR BIOLOGY: this program allows the student to focus on aspects of biology that are especially pertinent to biotechnology. Emphasis is on cell biology, genetics, cell culture, laboratory use of microcomputers and general laboratory techniques. Experience with DNA methodologies is available on an individual basis.

ORAL BIOLOGY: this program is designed as the first stage of research training for those students who intend to pursue careers in oral biology or dentistry, or for those who intend to enter clinical dentistry, but who seek a broader background and research experience.

The courses include seminars in mammalian dentition, dental evolution, structure and function of salivary glands, and nutrition and regular courses in oral biology, electron microscopy, immunology, microbiology, cell biology, endocrinology and molecular pharmacology.

MASTER OF SCIENCE IN BIOLOGY: the applicant must have a bachelor's degree (or equivalent) in biology. Any undergraduate deficiencies (including physics, mathematics and organic chemistry) must be made up before the completion of 15 semester hours of graduate work. Graduate students are expected to receive a grade of B or better in their biology courses. All students

should meet with the Director of Graduate Programs at least once each semester.

Candidates must complete 30 semester hours of graduate work including a thesis (BIO 301-302). At least 24 credits must be in Biology courses numbered 200 or higher, up to 6 credits of electives may be chosen with the permission of the Director of Graduate Programs.

In addition to a general course of study, concentrations are available in electron microscopy, marine and freshwater biology, molecular biology, and oral biology.

ELECTRON MICROSCOPY: this program is designed to provide a comprehensive two-year training experience in postgraduate biology and electron microscopy. Graduates of this program will be prepared to undertake routine maintenance of transmission and scanning electron microscopes, carry out a wide range of sophisticated investigative techniques and assist at all levels with biological research and analysis of research data.

Students should have an adequate background in histology, cell biology and anatomy. A semester of internship (equivalent to 3 semester hours) is required to complete this program.

MARINE AND FRESHWATER BIOLOGY: this program enables students to focus their studies on aspects of marine biology, limnology and aquaculture. In addition to the general M.S. requirements listed above, all students must accumulate 18 semester hours from the following courses: BIO 201, 204, 205, 207A, 208, 229, 270, 307, 2183, 2184 (for restrictions on 2000-level courses, see page 76). All students are expected to complete a thesis (BIO 301-302) on a subject related to marine or freshwater biology.

MOLECULAR BIOLOGY: this program allows the student to focus on aspects of biology that are especially pertinent to biotechnology. Emphasis is on cell biology, genetics, cell culture, laboratory use of microcomputers and general laboratory techniques. Experience with DNA methodologies is available on an individual basis.

ORAL BIOLOGY: this program is designed as the first stage of research training for those students who intend to pursue careers in oral biology or dentistry, or for those who intend to enter clinical dentistry, but who seek a broader background and research experience.

The courses include seminars in mammalian dentition, dental evolution, structure and function of salivary glands, and nutrition and regular courses in oral biology, electron microscopy, immunology, microbiology, cell biology, endocrinology and molecular pharmacology.

MASTER OF SCIENCE IN HUMAN CYTOGENETICS: this program is designed for students who wish to pursue careers in human cytogenetics. It provides a strong biology and cell biology base with special courses in cytogenetics and an internship period in a clinical cytogenetics laboratory. Graduates of the program will be prepared for laboratory careers in cytogenetic technology or further education in a related field.

Applicants must have a bachelor's degree (or equivalent) in biology or a related field (cell biology, biochemistry, genetics, etc.). It is recommended that students have had one semester of biochemistry, genetics, cell biology, statistics, one year of calculus and physics and two years of chemistry including organic laboratory. Deficiencies must be made up before the student accrues more than 15 credits towards the master's degree. All students should meet with the Director of Graduate Programs at least once each semester.

Program Requirements: 38 s.h.

Required courses: 25 s.h.

BIO 212, 214, 215, 238, 241, 244, 255, 305A, 305B, 306

Recommended electives: at least seven hours chosen from BIO 220, 221, 222, 224, 239, 240, 246, 251A, 252A, 253A, 259, 260, 263, 264A

Recommended for the degree: BIO 210

All students are required to complete and successfully defend either an essay (BIO 303) or a thesis (BIO 301-302).

Students who wish to be eligible for the certification examination for Clinical Laboratory Specialist in Cytogenetics upon completion of the program, must enroll in BIO 306 for two semesters (6 s.h. total). The second semester of 306 can be used as one of the electives.

See complete graduate information, page 73.

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

Introduces the student to the diversity of life and to basic principles upon which the life process works (cells, tissues, metabolism, reproduction). Emphasis on our own species in a biological context. Where did we come from? How do we compare to other organisms? Human anatomy and physiology are studied in lectures and laboratory sessions. Addresses the realities of being human—diseases, aging, birth and death, and behavior. Laboratory sessions provide an opportunity to learn about biological instrumentation and to study anatomy through dissection and models. (2 hours lecture, 2 hours laboratory.)

7. *First-Year Biology Seminar* 1 s.h.
See course description, page 402.

10. *Genetics and Society* 3 s.h.
See course description, page 402.

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

A study of the morphological events that occur during embryogenesis combined with an investigation of the cell/molecular mechanisms that underlie these events. Surveys a number of animals that are standard models for studies in developmental biology. Laboratory work includes preparation and investigation of timed embryos using several different histological techniques, microsurgical manipulation of embryos, use of molecular markers, tissue culture techniques and biochemical analysis to investigate developmental processes. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2. Prerequisite/corequisite: BIO 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.

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.)

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 and 91. Prerequisites: BIO 1 & 2 and permission of instructor. (Formerly *Undergraduate Research*.)

90A. *Introduction to Laboratory Research* 3 s.h.
See course description, page 402.

91, 92. *Undergraduate Research II* 2-4 s.h. each
See course description, page 402.

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. (Formerly 110.)
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 402.
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.
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. (Formerly *Mammalian Anatomy*.)
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 and Cytochemistry* 3 s.h.
Periodically
Laboratory work designed to illustrate basic techniques in cell biology including tissue culture, cell fractionation, density gradient procedures, spectrophotometry and various cytochemical techniques. Theoretical discussion of the instruments. Strongly recommended for students interested in research. Prerequisite or corequisite: BIO 1 & 2, 137 and permission of instructor. No liberal arts credit.
143. *Bacteriology* 4 s.h.
Fall, Spring
Systematics including laboratory techniques for bacterial identification, prokaryotic cell structure and physiology of bacteria. Consideration is given to bacterial interaction with their environment and to aspects of pathogenicity and host resistance. (3 hours lecture, 3 hours laboratory.) Prerequisites: BIO 1 & 2, CHEM 3A & 4A, 3B & 4B.
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, predentistry 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.
179. *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: junior class standing or permission of instructor. May not be taken on Pass/D+/D/Fail basis. Same as ENGG 181.
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 403.
184. *Advanced Aquaculture/Mariculture* 3 s.h.
See course description, page 403.
- 185 & 186. *Internship: Aquaculture/Mariculture* 5 s.h. each
See course description, page 403.
187. *Analysis of Aquaculture/Mariculture Internship* 2 s.h.
See course description, page 403.
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.
200. *Computer Utilization in Biological Research* 3 s.h.
Periodically
Application of computers in biological research; computer types (mainframe, mini and micro); elements of basic programming; overview and use of database management systems, spreadsheets, statistics, graphics, word processing, etc.; modification of commercial programs; special application programs; individual student projects.
201. *Statistical Analysis of Biological Data* 3 s.h.
Periodically
Practical application of statistical techniques to the analysis of data typically encountered by researchers in the life and health sciences. Students learn practical and intuitive approaches to choosing statistical techniques appropriate for particular experimental designs. Parametric statistical tests covered include single and two-way ANOVA, regression and correlation. Tests of "messy" or nonparametric data are considered as well, including analysis of frequencies and substitutions for ANOVA. (2 hours lecture, 1 hour recitation.)
204. *Tropical Marine Biology for Teachers* 3 s.h.
Summer
An intensive introduction to the biology of seashores, turtle grass beds, mangrove swamps and coral reefs. Teachers are shown how to prepare materials for use in classrooms. (2 hours lecture, 5 hours laboratory and field study daily.) Course meets for 12 days at the Caribbean Hofstra University Marine Laboratory, Jamaica.

205. *Marine Microbiology* 3 s.h.
Spring
Morphology, physiology, ecology and distribution of marine and estuarine bacteria, algae, fungi, protozoa and other planktonic organisms. Biological corrosion, pollution, pathogenicity and economic significance of marine microorganisms will also be considered. Prerequisite, one of the following: BIO 143, 151A or 172.
- 207A. *Biology of Fishes* 3 s.h.
Every other year
Anatomy, systematics, biogeography, respiration, osmoregulation, buoyancy and sensory systems of marine and freshwater fishes. The course concludes with a discussion of the interactions between humans and fishes, including poisonous and venomous fishes and fisheries management and conservation. Prerequisites: BIO 24, 181 or permission of instructor. (Formerly *Marine Ichthyology*.)
208. *Biology of Marine Mammals* 3 s.h.
Every other Fall
This course covers the anatomy and physiology of sea otters, seals, sea lions, manatees, dolphins and whales. Topics of discussion include their systematics, anatomy, thermoregulation, osmoregulation, diving physiology, sensory biology, feeding, life history and captive husbandry. Topics are discussed from an evolutionary perspective by comparing a terrestrial archetype (such as a human or dog) with these highly derived marine mammals.
210. *Advanced Genetics* 3 s.h.
Once a year
Problems of modern genetics based upon the most recent research. Prerequisite: BIO 135.
212. *Cytogenetics* 3 s.h.
Once a year
Structure, function and behavior of chromosomes in eukaryotes, prokaryotes and viruses. Also considered are lampbrush and polytene chromosomes in differentiation, the mitotic apparatus, and the synaptonemal complex. Prerequisite: BIO 135.
214. *Human Cytogenetics* 3 s.h.
Once a year
Topics covered include karyotype analysis, chromosomal anomalies including structural rearrangements and numerical disorders, various banding methods, chromosomes, cancer, and gene mapping by in situ hybridization. Prerequisite: BIO 212 or 210 or equivalent. May not be taken on a Pass/Fail basis.
215. *Clinical Genetics* 3 s.h.
Periodically
Clinical aspects of human genetic disorders including autosomal dominant and recessive and X-linked disorders, polygenic inheritance. Chromosomal disorders and prenatal diagnosis. Prerequisites: BIO 212, 214. May not be taken on a Pass/Fail basis.
220. *Endocrinology* 3 s.h.
Periodically
A consideration of the role of the major endocrine glands in the body economy, with emphasis upon the phylogeny and comparative physiology of these structures and upon the pertinent methodology. Prerequisites: BIO 144, CHEM 132A, 132B.
221. *Molecular Pharmacology* 3 s.h.
Periodically
Interaction of drug molecules with cells, tissues and organ systems with emphasis on the basic mechanisms involved in the absorption, distribution, action, metabolism and excretion of pharmacologically active agents. Current concepts in receptor theory and structure activity relationships. Prerequisites: BIO 144, 162, 137.
222. *Comparative Vertebrate Hematology* 3 s.h.
Periodically
Morphology, physiology and evolutionary development of the blood and hematopoietic organs of vertebrates with emphasis on their application to experimental methods in hematology. Phylogenetic relationships of blood cells and hemopoietic organs in the five classes of vertebrates. Prerequisite: BIO 144.
223. *General Mammalian Hematology* 3 s.h.
Periodically
Embryogenesis, morphology and function of the blood cells. Dynamics and kinetics of hemopoiesis. Proliferation, maturation, differentiation and destruction of blood cells. Neurohumoral regulation and maintenance of homeostasis in blood. Phyletic theories of stem cell derivatives. Prerequisite: BIO 144.
224. *Immunology and Serology* 3 s.h.
Periodically
Antigens and antibodies are considered both as components of immunologic systems and as a means of solving biological problems. Prerequisites: BIO 144, CHEM 132A.
229. *Limnology* 3 s.h.
Periodically
Physical, chemical and biological interrelationships in fresh water habitats. (2 hours lecture plus Saturday field trips by arrangement.) Prerequisites: BIO 1 & 2, CHEM 3A & 4A, 3B & 4B.
230. *Algae of Long Island and Adjacent Areas* 4 s.h.
Periodically
Taught in the field and in the lab, dealing primarily with organisms collected on the field trips. Emphasis on field observation, laboratory study, identification and maintenance of collected specimens. Prerequisite: BIO 1 & 2.
231. *Fungi of Long Island and Adjacent Areas* 4 s.h.
Periodically
Fieldwork is expected as emphasis is on study of fungi from collected samples. Isolation, culture and identification are an integral part of course work. Prerequisite: BIO 1 & 2.
237. *Biochemical Mechanisms in Cell Biology* 3 s.h.
Periodically
Course covers recent research concerning the biochemical mechanisms involved in regulating various processes in cell biology. Selected advanced topics may include some of the following: transcellular signaling, vesicle traffic, quality control of protein synthesis, protein translocation, nuclear transport, extracellular matrix, cytoskeletal function and G-protein function. Students analyze recent reviews and journal articles from the primary literature. Prerequisites: BIO 135, 137, CHEM 131A & 132A, 131B & 132B, or equivalents. May not be taken on a Pass/Fail basis.
238. *Animal Cell Culture* 4 s.h.
Fall
Study and utilization of techniques involved in the establishment and maintenance of animal cell lines including preparation of media and aseptic methods, types of cell culture, experimental design employing cultured cells, cloning, cell cycle analysis, karyotyping, preparation of monoclonal antibodies, etc. Theory of techniques learned in the laboratory are discussed in lecture. Prerequisites: BIO 137 and permission of instructor. Recommended for students interested in cell biology and biochemistry research.
239. *Microscopic Techniques* 4 s.h.
Periodically
Practice and theory involved in various techniques for preparing and staining tissues and cells, and also unicellular organisms for microscopic and cytochemical studies. (2 hour lecture, 4 hours laboratory.) Prerequisites: BIO 1 & 2.

240. *Virology* 3 s.h.
Spring
Molecular and clinical aspects of viruses that infect humans. Includes replication, gene expression, changes in host cells, pathogenesis, and transmission. Particular attention is paid to Human Immunodeficiency Virus—the cause of AIDS. Prerequisites: BIO 1 & 2, 135, 137.
241. *Mechanisms in Cellular Aging* 3 s.h.
Fall
Possible mechanisms involved in cellular aging including mutagenesis, free radicals, thermal damage, DNA repair and chemical cross-linkage; the role of development and protein aging. Prerequisite: BIO 135. BIO 137 recommended.
243. *Experimental Developmental Biology* 4 s.h.
Periodically
A survey of experimental approaches and techniques employed in the analysis of animal development emphasizing microsurgical manipulations, *in vitro* cultivation, autoradiographic detections, electrophoretic separations, biochemical isolations and an independent research project. Prerequisites: BIO 23 or 24 and permission of instructor.
244. *Biology of the Cancer Cell* 3 s.h.
Spring
Various aspects of cancer cell biology on the histological, cellular and molecular level. Emphasis is on basic research problems including cancer as a misprogramming of normal development, alterations in cell-cell recognition, changes in nuclear events, the oncogene theory and the mechanisms of action of chemical carcinogens. Prerequisite: BIO 137. CHEM 162 recommended.
245. *Morphology and Physiology of Bones and Teeth* 3 s.h.
Periodically
The anatomy and development of bone and teeth. Discussion of experimental tooth embryogenesis, the calcification process and pulp and periodontal histopathology. Recent advances in replantation and transplantation of teeth will be considered. Prerequisite: BIO 191 or 190 or permission of instructor.
246. *Comparative Microscopic Anatomy* 4 s.h.
Periodically
Microscopic study of human tissues and organs, and a histological comparison between the human and those of other vertebrate organisms. Students submit a paper which deals in detail with the comparative histology of an organ or system of their choice. Prerequisite: BIO 137 or equivalent.
- 251A, 252A. *Special Topics in Biology* 2-4 s.h. each
Fall, Spring
Selected readings on the development of the great areas and philosophies and current literature in selected fields of biology. Oral and written reports at seminar sessions or consultation periods. May be repeated for credit when topics vary. (Formerly 251, 252, *Special Topics Seminar*.)
- 253A. *Special Topics in Biology* 2-4 s.h.
Fall, Spring
Lectures and seminars on special advanced topics in biology. Emphasis is on subjects of current investigation, the scientific literature, and theoretical and philosophical aspects of research. May be repeated for credit when topics vary. (Formerly 253, *Special Topics Seminar*.)
255. *Seminar: Current Topics in Cytogenetics* 2 s.h.
Periodically
Course covers recent research in cytogenetics. Students are required to read, understand and discuss primary research articles in cytogenetics and are evaluated on the basis of preparation, participation and understanding of the material. Prerequisite: BIO 212 or BIO 214 or permission of instructor.
259. *Electron Microscopy for the Biologist* 4 s.h.
Spring
Principles and practice of basic techniques used in transmission electron microscopy. Lectures discuss theory of the techniques learned in lab. Laboratory consists of instruction in the techniques of fixation and embedding, ultramicrotomy, use of the electron microscope and photography. Prerequisite: permission of instructor.
260. *Electron Microscopic Analysis I* 2 s.h.
Fall
Ultrastructural histology. A detailed analysis of the ultrastructure of the major tissue types in mammalian organisms. Prerequisite: BIO 133 or 246.
261. *Electron Microscopic Analysis II* 2 s.h.
Spring
Ultrastructural pathology and interpretation of micrographs. Guest speakers illustrate and discuss tissue pathology at the ultrastructural level. Problems of interpretation of micrographs are analyzed using published materials as examples. Prerequisites: BIO 259, 260.
262. *Servicing the Electron Microscope* 2 s.h.
Periodically
Lectures by qualified electron microscope servicemen on common service problems. Instruction on dismantling and reassembly procedures associated with routine maintenance. Prerequisites: BIO 259 and permission of instructor.
263. *Advanced Techniques and Theory of Electron Microscopy* 2 s.h.
Periodically
Discussion and illustration of advanced electron microscopic techniques such as autoradiography, shadow-casting, negative staining and freeze-etching. Discussion includes problems of data interpretation. Prerequisites: BIO 259 and permission of instructor.
- 264A. *Scanning Electron Microscopy* 3 s.h.
Periodically
Discussion and instruction in tissue preparation including critical point drying, use and maintenance of the scanning electron microscope. Each student undertakes his or her own project as a requirement of the course. Prerequisites: BIO 259 and permission of instructor.
270. *Physiological Ecology and Functional Morphology of Aquatic Vertebrates* 3 s.h.
Every other Spring
This course covers how fish, aquatic amphibians, reptiles, and birds interact with the environment. The primary focus of the course is fish. It uses an interdisciplinary approach encompassing the areas of anatomy, function, physiology and ecology. Particular attention is given to the way these vertebrate groups overcome problems associated with aquatic life. Prerequisites: BIO 24, 144, 207A, or equivalents, or permission of instructor. May not be taken on a Pass/Fail basis.
275. *Advanced Conservation Biology* 3 s.h.
Spring
This course reviews the basic topics in conservation biology and considers in detail advanced topics. Topics include the origin and measurement of genetic, species and ecosystem biodiversity, ancient and contemporary extinction processes, species and ecosystem management, and the political and economic aspects of biodiversity preservation. Students use computer simulations to compare strategies for managing and restoring endangered species and ecological communities. (2 hours lecture, 1 hour recitation.) Prerequisites: BIO 1 & 2. No credit for BIO 275 if BIO 115 is on undergraduate transcript.

301-302. *Master's Thesis* 3 s.h. each
Fall, Spring
Laboratory and library research. BIO 302 includes a public oral presentation and examination. Binding fee payable upon registration in 302. Prerequisite: permission of instructor. Recommend taking BIO 201 prior to or at the same time.

303. *Master's Essay* 3 s.h.
Fall, Spring
Library-based research paper comprising a critical review of scientific literature on a selected topic. The thesis portion is the student's own evaluation of the topic. Course includes a public oral presentation and examination. Binding fee payable upon registration. Prerequisite: permission of instructor. Recommend taking BIO 201 prior to or at the same time.

304. *Internship in Electron Microscopy* 3 s.h.
Periodically
Intensive full-time work in an electron microscope laboratory (at Hofstra or a neighboring institution) to demonstrate the student's ability to function as a professional microscopist. Prerequisite: admission to the program.

305A, 305B. *Graduate Seminar* ½ s.h. each
Fall, Spring
A broad range of research topics in the biological sciences are discussed in weekly seminars. Presentations are made by invited speakers. May not be taken on a Pass/Fail basis. (Formerly BIO 305.)

306. *Internship in Cytogenetics* 3 s.h.
Fall, Spring, Summer
Intensive work (four days/week) in a cytogenetics laboratory at a neighboring institution, to gain expertise in the technical aspects of laboratory cytogenetics including karyotyping, banding, photography and analysis of karyotypes. Students must attend bi-weekly meetings with faculty adviser at Hofstra in addition to their time at the laboratory site. Students wishing to apply for certification must enroll in 306 for two semesters. Student evaluation is based on meeting participation and evaluation by laboratory supervisor. Prerequisites: BIO 212, 214, 238, and admission to the program. May not be taken on a Pass/Fail basis.

307. *Internship in Marine or Freshwater Biology* 3 s.h.
Fall, Spring, Summer
Intensive work at an institution specializing in marine or freshwater biology to enable the student to develop practical expertise in these fields. Students may choose from a large selection of participating facilities including (but not limited to) a neighboring institution, a museum, or a zoological park/aquarium. Prerequisite: admission to the concentration.

Broadcasting

See School of Communication

Business Computer Information Systems and Quantitative Methods

Professor Nasri, *Chairperson*

Professors Affisco, Paknejad, Silver, Stern, Tafti; Associate Professors Binbasioglu, Chandra, Dickman, Guiahi, Lally, Sessions, Shirani, Stevans; Assistant Professors Bose, Hardiman; Special Assistant Professors Soliman, Winston.

THE BRODLIEB DISTINGUISHED PROFESSORSHIP IN BUSINESS IS held by Professor Stern. See page 424.

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 Nasri, *Chairperson*

B.B.A. SPECIALIZATION IN BUSINESS COMPUTER INFORMATION SYSTEMS: (all specializations must have prior approval of adviser). BCIS 30, 40, 90, 116, 117, 120 and two BCIS electives chosen under advisement.

See complete B.B.A. requirements, page 104.

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 Financial and Academic Records.

MASTER OF BUSINESS ADMINISTRATION PROGRAMS, see page 107.

MASTER OF SCIENCE IN COMPUTER INFORMATION SYSTEMS, see page 111.

BUSINESS HONOR SOCIETIES, see pages 69, 77.

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.

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 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 communication 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 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. Prerequisite: 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. Prerequisite: BCIS 10 or CSC 5.

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. Prerequisite: BCIS 30 or 40; junior class standing or above. (Formerly *Advanced Business Application Programming; Intermediate and Advanced Business Application Programming.*)

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. Prerequisite: BCIS 30; junior class standing or above.

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 evaluation, 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 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 or CSC 120 or permission of department chairperson; 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 telecommunications 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.*)

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.

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, junior class standing or above, and permission of department chairperson, 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.

201. *Information Technology** 3 s.h.
Fall, Spring

Introduction to the use of computer hardware, software, and connectivity in a business environment. Students gain an understanding of computer capabilities and limitations, ethical issues, and systems analysis and design concepts with the aim of understanding appropriate use of information system technology in domestic and global environments. Software including basic and intermediate spreadsheet modeling, database management, groupware, and Internet tools are covered. (Formerly *Survey of Business Computer Information Systems*.)

201A. *Structured COBOL Programming** 3 s.h.
Fall, Spring

A course in COBOL programming with emphasis on payroll billing, inventory and general ledger applications. Focus on systems concepts related to COBOL programming such as sequential file processing, index sequential file processing, summary reporting, audit and control procedures. Prerequisite or corequisite: BCIS 201 or approved equivalent. Note: BCIS 201A may not be taken in lieu of BCIS 201.

204. *Simulation in Business** 3 s.h.
Periodically

Application of computer simulation techniques to business problems, development of basic methodology for analyzing complex systems by the use of simulation techniques. Classification and properties of simulation models and simulation languages. Prerequisite: knowledge of a programming language.

205. *Management Information Systems** 3 s.h.
Fall, Spring

The use of information systems to support work processes and decision making at all levels of an organization and across all functional departments such as accounting, finance, management, and marketing. Topics include centralized versus decentralized information systems, client-server computing, information systems and decision making, database design issues, the strategic use of information technology, work process redesign (reengineering) with information technology, information systems security, issues regarding the social and ethical impacts of information technology, information privacy and global telecommunications issues. Software systems, including advanced spreadsheet models, expert systems, groupware and database management supporting managerial decisions are covered. Prerequisite: BCIS 201 or approved equivalent. (Formerly *Information Systems for Management*.)

206. *Systems Analysis and Design** 3 s.h.
Once a year

The analysis and design of information processing systems for business applications. Focus on structured analysis and design techniques. Topics include the System Development Life Cycle,

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.

prototyping, feasibility studies, participatory design, enterprise modeling, system documentation using CASE tools including Data Flow Diagrams and structure chart representations, system implementation and installation, data requirements and user interface design. Ethical, social and global issues in the design and use of information systems are discussed. Course requirements include designing a system using a CASE tool for implementation on either a mainframe or microcomputer. Prerequisites: BCIS 201A, 205. (Formerly *Information Processing Systems*.)

207. *Interactive Information Systems** 3 s.h.
Once a year

A project-oriented course which examines interactive computer-based systems and focus on the problems associated with the human machine interface in a business environment. Applications such as decision-support systems, word processing, computer-aided design, computer-aided manufacturing and computer-aided instruction are considered. Focus is on dialogue design techniques, hardware, computer graphics, cost-benefit considerations and advanced file and database organization. Prerequisites: BCIS 205, QM 210.

208. *Accounting Information Systems††* 3 s.h.
Fall, Spring

Course addresses key concepts and trends in information systems technology and how they affect accountants, as well as how the business environment is affecting and stimulating the trends' development. Students gain an understanding of computer-based accounting information systems and the impact of information technology on the practice of accounting and auditing. Topics include development and documentation techniques of computer-based accounting systems, auditing and control in common computer environments, data base systems, and financial reporting systems.

209. *Decision Support Systems** 3 s.h.
Periodically

Decision support systems (DSS) require a cooperative interdependence between decision makers and computing systems. Critical evaluation of the conceptual frameworks for DSS, the building process and technology components. A review of current DSS research and technology forecasts. Prerequisite: BCIS 205.

211. *Object-Oriented Programming in Visual Basic** 3 s.h.
Periodically

An introduction to the fundamentals of application design and programming for Windows using object-oriented programming languages. Graphical user interface design; object-oriented and event-driven programming concepts; methods of structured programming and modularization; program control and decision structures; procedures and functions; debugging and error handling; processing files; accessing databases; object linking and embedding. Topics related to ethical issues in applications development and global software development practice are also covered. Prerequisite: BCIS 201 or approved equivalent.

212. *International Information Technology** 3 s.h.
Once a year

Course addresses information technology (IT) issues that arise on an international scale at three levels of analysis: the individual firm, the industry, and the nation. Students learn to design and manage an international IT infrastructure for a given firm, to understand the industry level impacts of international IT, to develop an appropriate strategy for an organization in anticipation of these impacts, to compare potential host countries in terms of their IT policy and strategy, and to gain an appreciation of the ethical and political implications of these systems. Prerequisite: BCIS 205.

215. *Database Management Systems** 3 s.h.
Once a year

A course in database design, implementation, and management. Topics include strategic database planning, entity-relationship modeling, theory of the relational model, data normalization, distributed database processing, and the SQL language. Emphasizes database support for global business operations and explores ethical issues and concerns relating to modern database and data warehousing techniques. Prerequisites: BCIS 201A, 205.

220. *Business Data Communications** 3 s.h.
Periodically

Integrated course in data communications technology and its application in a business environment. Students are presented with a comparison of data transmission media, data communication techniques, and network configurations currently available. Additional topics include telecommunications standards, the evolution of the telecommunications industry, differences in availability and regulation of telecommunications between countries, and the social and ethical impacts of alternative telecommunication technologies. Students learn network applications as a tool for supporting a global business. Prerequisite: BCIS 205.

225. *Knowledge-Based Decision Support Systems** 3 s.h.
Once a year

Concepts in artificial intelligence, knowledge-based systems with specific applications in business. Entails hands-on experience with building a prototype expert system, using an expert shell. Introduction to the concepts of knowledge representation which entail the formalization of the rules of thumb and application of the rules in a set of procedures (Heuristics) to solve complex decision-making problems. Prerequisite: BCIS 205.

230. *Power Tools for Managers** 3 s.h.
Periodically

The use of the latest power tools and their impact on managerial decision making and communication and on business profitability. Topics include multimedia as a tool for management communication, marketing with multimedia, doing global business on the Internet, using the Internet as a source of corporate intelligence, Website design, ethical impacts of doing business on the Internet, and the tradeoffs between object oriented and structured programming. Prerequisites: completion of all core competency courses or approval of department chairperson.

240. *Management of Information Technology** 3 s.h.
Periodically

A case-oriented course dealing with the management of information systems and technology in organizations. Topics include strategic use of technology; development of information systems architecture, communications, highway systems; managing of information resources, end user computing, information centers and the human side of systems. Prerequisites: BCIS 206, 215.

251, 252. *Advanced Readings and Projects** 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 or seminar basis. Prerequisite: permission of department chairperson.

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.
††Open only to matriculated M.S. in Accounting, Accounting and Taxation, Accounting Information Systems, and Taxation students. May be taken by M.B.A. students majoring in accounting in lieu of BCIS 205.

257. *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 205, permission of department chairperson, 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.
304. *Advanced Research Seminar in Business Computer Information Systems** 3 s.h.
Fall, Spring
(NOTE: BCIS 306-308 may be offered in place of 304.) Students write an integrative paper on an assigned topic based on secondary research and then formulate a written primary data research design to investigate a specific key issue. They must formulate research questions and hypotheses, construct survey instruments and experimental designs, draft sample plans, outline data handling procedures, and prepare a comprehensive research proposal, furnishing justifications for its theoretical as well as practical significance. An oral presentation of each project is required at the conclusion of the semester. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of the department chairperson.
305. *M.B.A. Honors Research Thesis in Business Computer Information Systems** 3-6 s.h.
Periodically
Student selects and designs an integrative research project with the approval and guidance of a faculty member in the area of specialization. Student is required to justify the project's significance within a decision-making framework and define the management applications of the research findings. An oral report of the research findings is presented to a faculty committee. With joint permission of the department chairperson and thesis adviser, a student may expand the M.B.A. Honors Research Thesis from 3 to 6 s.h.; the additional 3 s.h. may be counted toward elective requirements in the area of concentration. Prerequisites: minimum cumulative grade point average of 3.5, completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson.
306. *Case Focused Research Seminar in Business** 3 s.h.
Periodically
Emphasis on multiple functional areas that are taught in the Zarb School of Business. A case study approach is utilized in this course, and students are challenged to understand how decisions and policies from different functional areas are integrated within an organization. Students present detailed recommendations toward resolution of complex business problems within an industry or company which must be supported by appropriate documentation of research and analysis. Written and oral reports are required. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson. Same as ACCT 306, FIN 306, IB 306, MGT 306, MKT 306.
307. *Consulting Research Project** 3 s.h.
Periodically
Under the supervision of an instructor and working singularly or in a small group, students are assigned to a client organization for one semester. The students and the client organization to which they are assigned will identify the client's specific problems and objectives. Students design and complete one or more integrative consulting projects involving various business principles and conduct research. A written consulting report and an oral presentation are made to a faculty committee and the senior management of the organization. Prerequisites: minimum cumulative grade point average of 3.5, completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of the senior assistant dean and director of graduate programs and the department chairperson. Same as ACCT 307, FIN 307, IB 307, MGT 307, MKT 307.
308. *Integrative Business Simulation** 3 s.h.
Periodically
Course utilizes a comprehensive and integrative computer simulation to create a variety of complex multifunctional business problems to which students must respond under varying conditions of uncertainty. A team-based approach to decision making is used in resolving problems created by the computer model. Students are required to provide detailed reports on decisions made and to provide quantitative and qualitative justifications for their decisions. These justifications must be supported through the use of research and must be presented orally and in writing. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson. Same as ACCT 308, FIN 308, IB 308, MGT 308, MKT 308. (Formerly *Computer Simulation (Management Game) in Business Computer Information Systems*.)
309. *Research Seminar in Business Computer Information Systems**** 3 s.h.
Periodically
Students prepare a comprehensive paper in their area of specialization based upon secondary research and then formulate a written primary data research design to investigate an emerging issue in this area. They must formulate research questions and hypotheses, and construct either: 1) a survey instrument, 2) an experimental design, 3) a comprehensive plan for a case study, or 4) an outline for a formal model based on the methodology most appropriate for studying the issue involved. Students then conduct the study and prepare a written report of the results which is presented at the conclusion of the semester. Prerequisites: completion of 21 s.h. in the area of concentration. It is strongly recommended that this course be taken in the last semester of course work.
330. *Graduate Internship** 3 s.h.
Fall, Spring
A work-study program open to graduate students who are specializing in business computer information systems.
Students work a minimum of 100 hours in the semester for selected business organizations in information systems. A written evaluation of the use of information systems to support organizational operations is prepared by the student at the end of the course. Most internship opportunities involve some form of monetary remuneration. Prerequisites: all core competency courses or approved equivalents, 24 graduate-level credits with a

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.

***Open only to matriculated M.S. in Computer Information Systems students.

†Full-time students may take IB 219 as a corequisite.

3.3 average and permission of the department chairperson. (Formerly GBUS 330.)

401. *Information Systems for Management*** 4 s.h.
Periodically

An overview of the use of computer hardware, software and connectivity will progress into an investigation of how information systems are used to support work processes and decision making at all levels of an organization and across all functional areas. Special attention is given to issues frequently encountered by senior management such as the strategic use of information technology (IT), using IT to reengineer work processes and to gain a global advantage, whether or not to outsource the IT function, business advantages from the use of the Internet and of Intranets, the migration to client/server computing, managing and controlling information in distributed environments, and corporate ethical responsibilities with regard to available and rapidly evolving technologies.

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 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 courses 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 coursework 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 Financial and 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 and how these elements are reflected and applied in modern statutory law, contemporary business and professional situations. The role of contract law in relation to other areas of the legal environment, particularly regulatory laws and ethics, is also explored. Fundamentals of contract negotiations, drafting and evidentiary formalities are covered as are damage theory and dispute resolution, including alternatives to litigation. 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. No credit for both this course and BLAW 12. (Formerly *Business Law for Accountants*.)

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. *Legal Aspects of Computers and Computer Use* 3 s.h.
Periodically

Legal principles applicable to the computer industry. Contracts in the computer industry including UCC and warranties; intellectual property considerations including patents, copyrights, trademarks and trade secrets; antitrust and other anticompetitive concerns; strict liability and negligence; security problems; computer related crime. Prerequisites: BLAW 20 and BCIS 10 or CSC 5.

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.

**Open only to matriculated Zarb School of Business E.M.B.A. students

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

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, permission of department chairperson, 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.

201. *Legal, Political, Regulatory and Ethical Environment of Business** 3 s.h.

Fall, Spring

Overview of the United States legal and political systems and governmental regulation as they relate to modern business practice. Case analyses are actively used for discussions of business contracts, partnerships, ethics, the Uniform Commercial Code, negotiable instruments, property and banking transactions, and compliance with local, state, federal, and emerging international regulations. (Formerly 201B, *Legal and Social Environment of Business*.)

210. *Accountants' Liability and Ethics** 3 s.h.
Periodically

Focus on various types of legal liability to which accountants may be exposed including common law liability and statutory liability under federal statutory law and blue sky laws. Various ethical issues that accountants face in their practices are also discussed.

401. *The Legal and Regulatory Environment*** 2 s.h.
Periodically

Overview of the United States legal and political systems and governmental regulation as they relate to modern business practice. Case analyses are actively used for discussions of business contracts, partnerships, ethics, the Uniform Commercial Code, negotiable instruments, property and banking transactions, and compliance with local, state, federal, and emerging international regulations.

Chemistry (CHEM)

Associate Professor Finzel, *Chairperson*

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

B.A. SPECIALIZATION IN CHEMISTRY: CHEM 3A & 4A, 3B & 4B, 80, 105, 109, 124, 125, 131A & 132A, 131B & 132B and 134B, 141-142, 147, 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, 143 and 144 are strongly recommended.

See complete B.A. requirements, page 82.

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 84.
5. The fulfillment of the following major and additional requirements:

In addition to the course requirements listed above for the B.A. specialization, the B.S. candidate must complete CHEM 148, 171, 180 and 6 hours of research.

TEACHING OF HIGH SCHOOL CHEMISTRY AND GENERAL SCIENCE, see page 363.

A MINOR IN CHEMISTRY consists of the successful completion of 18 semester hours of chemistry courses, under advisement, includ-

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.

**Open only to matriculated Zarb School of Business E.M.B.A. students.

†See University Degree Requirements, page 66.

ing 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.

POST-BACCALAUREATE PREMEDICAL CERTIFICATE PROGRAM

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 330.

ALPHA EPSILON DELTA: the international honor premedical society, see page 69.

BIOCHEMISTRY PROGRAM AND COURSES, see page 150.

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 403.

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.

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.
Fall

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.

131A & 132A. *Elements of Organic Chemistry* 3 s.h. each
131A: Fall; 132A: 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.
Every other Spring

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.

#Core course

- 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 physiochemical 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.
Every other Spring
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 Chiu, *Advisor*.

For Chinese Literature and Translation courses, see page 282.

COURSES

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

- Elementary Chinese* 3 s.h.
Fall
Fundamentals of structure (Mandarin). Oral and written drill.
- Elementary Chinese* 3 s.h.
Spring
Continuation of 1. Readings of simplified Pai-Hua texts. Prerequisite: CHIN 1 or equivalent.
- 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 115.

Community Health

SEE HEALTH PROFESSIONS AND FAMILY STUDIES

Comparative Literature and Languages

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. Each language or area is listed alphabetically.

Professor Donahue, *Chairperson*

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

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 82.

TEACHING A FOREIGN LANGUAGE IN HIGH SCHOOL, see page 362.

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 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 page 272.

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 403.

75. *Women Writers in the Romantic Tradition*# 3 s.h.
See course description, page 403.

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 403.

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

See course description, page 403.

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.

193. *Black Literature Across Cultures* 3 s.h.
Periodically

Literary texts that reflect the encounter of black consciousness with various cultures: French, Hispanic and Anglo Saxon.

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

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

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

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

Courses 200 and above are open only to matriculated graduate students or by permission.

201. *Bibliography of Modern Literature* 2 s.h.
Periodically

251, 252. *Readings in Comparative Literature* 3 s.h. each
Periodically

Studies in comparative literature.

*Applications not accepted in 2000-2001.

Interested students should consult the M.A. in Humanities, page 267.

#Core course

272. *Studies in European Literature of the 17th and 18th Centuries* 3 s.h.

Periodically
Critical analysis of some major works of the European literature of the 17th and 18th centuries. Prerequisite: CLL 172 or permission.

291. *European Romanticism* 3 s.h.

Periodically
Romantic movements in England, France and Germany, literary movements related to the history and culture of the times. Prerequisite: CLL 191 or permission.

293. *Analysis of Black Authors* 3 s.h.

Periodically
Recent imaginative works in English and French by black authors. The course deals with revising literary standards that have heretofore been applied to these works.

295. *Studies in Realism, Naturalism and Symbolism* 3 s.h.

Periodically
A critical and analytical study of a literary movement or of selected works in prose, poetry and drama. Prerequisite: CLL 195 or permission.

299. *Studies in Contemporary Literature* 3 s.h.

Periodically
Study in depth of a phase or some aspect of contemporary literary movements (existentialism, the novel of the absurd, etc.); or an aspect of contemporary artistic expression in poetry, prose and drama; or a comparative treatment of some classical or nonclassical myths (*Electra, Antigone, Faust, Don Juan, etc.*). Prerequisite: CLL 199 or permission.

301. *Master's Essay* 3 s.h.

Periodically
Under tutorial guidance of a chosen professor in the department, the student undertakes a master's essay, which shall exhibit thoroughness of scholarship. Length between 7,000-8,000 words.

Computer Information Systems

MASTER OF SCIENCE PROGRAMS, see page 111.

Computer Science (CSC)

Associate Professor Swift, *Acting Chairperson*

Professor Impagliazzo; Assistant Professors Barr, Kamberova, Ostheimer, Pillaiappakkammatt, Sigal; Instructor Papka.

Hofstra offers both B.A. and B.S. degrees in Computer Science. The B.A. combines a major in computer science with a broad program in the liberal arts. The B.S. 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. Hofstra also offers a B.S. program with a dual major in computer science and mathematics.

B.A. SPECIALIZATION IN COMPUTER SCIENCE: 37 semester hours in computer science: CSC 14, 15, 16, 24, 110, 110A, 112, 120, and 15 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). 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 82.

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 66).
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, 161, 163, 185, 190 and 15 semester hours in computer science electives numbered higher than 100. 23 semester hours in mathematics and science which must include MATH 19, 20, and 12 semester hours in natural sciences to include *either* PHYS 11A & 12A (with 11B, 12B laboratories) *or* CHEM 3A-4A (with 3B-4B laboratories). All mathematics courses must be at or above the calculus level and 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 SCIENCE AND MATHEMATICS, see page 296.

A MINOR IN COMPUTER SCIENCE consists of the successful completion of CSC 14, 15, 16 and an additional 9 semester hours in computer science courses which may include CSC 5 with at least 6 hours in residence, with grades of C- or better.

MASTER OF ARTS IN COMPUTER SCIENCE: this program is designed to meet the needs of the technical and business-oriented markets we serve with individual programs designed by the student in consultation with an adviser. Business men and women, as well as science professionals, will find electives specifically for their specialties. Professor Impagliazzo, *Coordinator*

ADMISSION REQUIREMENTS

1. Completion of a bachelor's degree from an accredited institution, and
2. An undergraduate minimum grade-point average of 3.0 on a 4.0 scale.
3. Achievement in General (verbal, quantitative and analytical) GRE scores.

PREREQUISITE REQUIREMENTS

Students may satisfy any or all of the prerequisites listed below by having completed, or enrolling in, these courses or their equiv-

*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.

alents at an accredited institution. With the permission of the graduate coordinator, eligible students may elect to sit for proficiency examinations.

Applicants without undergraduate computer science degrees may be admitted as provisionally matriculated students if they meet all admission criteria except for the required prerequisites. They can enroll in graduate courses if they meet individual course prerequisites and satisfy the general requirements before completing 12 semester hours of graduate study. This condition is automatically lifted as soon as the prerequisites or their equivalents are satisfactorily completed.

CSC 14, 15, 16, 110, 112, 120, 161; MATH 20.

PROGRAM REQUIREMENTS

Satisfactory completion of the following 33-semester hour program:

CSC 204, 256, and 300; electives, 24 s.h.; courses taken in other departments as electives require written departmental approval; at least 27 hours in graduate computer science courses; up to 6 semester of graduate courses in areas outside of computer science may be taken with the written approval of the graduate coordinator; at least 27 hours in residence at Hofstra; and a minimum 3.0 average with a grade of C or better in all courses.

MASTER OF SCIENCE IN COMPUTER SCIENCE: this program provides a balance between the theoretical and applied areas of computer science and is designed to allow flexibility within the four subject areas that follow. Professor Impagliazzo, *Coordinator*

ADMISSION REQUIREMENTS

1. Completion of a bachelor's degree from an accredited institution, and
2. An undergraduate minimum grade-point average of 3.0 on a 4.0 scale.
3. Achievement in General (verbal, quantitative and analytical) GRE scores.

PREREQUISITE REQUIREMENTS

Students may satisfy any or all of the prerequisites listed below by having completed, or enrolling in, these courses or their equivalents at an accredited institution. With the permission of the coordinator of the graduate program, eligible students may elect to sit for proficiency examinations.

Applicants without undergraduate computer science degrees may be admitted as provisionally matriculated students if they meet all admission criteria except for the required prerequisites. They can enroll in graduate courses if they meet individual course prerequisites and satisfy the general requirements before completing 12 semester hours of graduate study. This condition is automatically lifted as soon as the prerequisites or their equivalents are satisfactorily completed.

CSC 14, 15, 16, 110, 112, 120, 161; MATH 20.

PROGRAM REQUIREMENTS

Satisfactory completion of the following 33-semester hour program:

CSC 204, 256 and 301-302; 18 s.h. to satisfy the breadth requirement as listed below; electives as needed to complete 33 s.h.; up to 6 s.h. of graduate courses in areas outside of computer science may be taken with the written approval of the graduate coordinator; at least 27 hours in graduate computer science courses in residence at Hofstra with a minimum 3.0 average, and a grade of 3.0 or better in all courses.

Breadth requirements: two courses in each of the three following areas: Theory, Software, Hardware
 Theory: CSC 201B, 202, 205, 206, 207, 208
 Software: CSC 252, 253, 254, 258
 Hardware: CSC 280, 282, 284, 286, 287

See complete graduate information, page 73.

UPSILON PI EPSILON: a national computer science honor society, see pages 72, 77.

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

Computers, algorithms and programming; computer hardware and software systems. Pascal programming of numerical and non-numerical algorithms. Survey of computer applications. Brief history of computer science; computers and society. 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. Functions, including surjections, injections, bijections. Equivalence relations and partial orderings. Matrices and matrix operations. Combinatorics, including permutations and combinations. Graphs, including simple graphs, directed graphs, trees, Euler circuits, Hamilton circuits. Introductions to computational complexity, big-O notation, intractability. Introduction to recurrence relations. (3 hours lecture, 1 hour laboratory.) Credit given for this course or New College NM3, or MATH 14. 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, algorithms and the principles of algorithm construction. C language programming. Topics include arrays, loops, pointers, and functions. Programming required. Course follows the current ACM recommended curriculum for "CS1." (3 hours lecture, 1 hour laboratory.) Prerequisite: MATH 11 or equivalent.

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

Continuation of 15 using C. Emphasis on data structures, such as stacks, queues, and linked lists, and algorithms, such as searching, sorting, and recursion. Programming required. Course follows the current ACM recommended curriculum for "CS2." (3 hours lecture, 1 hour laboratory.) Prerequisites: CSC 14, 15 or equivalent.

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

Recursive definitions and algorithms, recurrence relations and their solution. Series and Sequences. Order of an algorithm: big O, little o, omega, theta. Elementary abstract algebra, discrete probability, elementary linear algebra. Elements of graph theory and graph algorithms. Prerequisite: CSC 14.

102. *Numerical Methods* 3 s.h.
 Fall, Spring

Same as ENGG 101 and MATH 147. Prerequisite: CSC 15 or ENGG 10. Corequisite: MATH 131.

#Core course

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 or ENGG 10 or BCIS 50.
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 sequential and linked representations of data structures for linear lists including stacks and queues, structures, arrays and trees. Fundamental algorithms and their implementation using a block-structured language such as C relating to sorting, searching, merging, hashing, graph theoretic models and recursive procedures. Prerequisites: CSC 16, 24. (Formerly *Data Structures*.)
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 structures. Some programming in a logic-based language such as PROLOG. Prerequisites: CSC 16, 161.
124. *Compiler Construction* 3 s.h.
Spring
Design and implementation of compilers for C, Pascal and ALGOL type languages. Lexical scanning, parsing techniques, semantic analysis and intermediate code generation, optimization techniques, target code generation. Management of symbol table; error handling. Programming required. Prerequisite: CSC 123.
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.
155. *UNIX and C++* 3 s.h.
See course description, page 403.
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
Definition and representation of various types of automata such as finite and probabilistic automata. Representation of automata by state graphs, logical nets and Turing machines. Computability theory and decision problems of automata. Prerequisite: CSC 24.
163. *Computing, Ethics, and Society* 1 s.h.
See course description, page 403.
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 120, 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 120, 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; ENGG 10 or CSC 15.
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
A capstone course for computer science majors which applies concepts learned throughout the curriculum. 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 112, senior status or permission of department chairperson. (Formerly *Project in Software Engineering*.)
195. *Computer Science Internship I* 3 s.h.
See course description, page 403.
196. *Computer Science Internship II* 3 s.h.
See course description, page 403.
- NOTE: Graduate courses taken toward the major may not be taken on a Pass/Fail basis.
- 200A. *Themes of Computer Science* 6 s.h.
Fall
Designed as a transition course for those students who wish to do graduate work in computer science but who need additional preparation. Covers such topics as theoretical foundations, logic, induction, scientific models and formal aspects of programming. Prerequisite: CSC 120. May not be taken on a Pass/Fail basis. No credit toward the M.A. or M.S. degree in Computer Science.
- 201A. *Mathematical Logic* 3 s.h.
Periodically
The propositional calculus: truth tables and axiomatizations. First order theories: completeness theorem, formal number theory, Gödel's incompleteness theorem. Same as MATH 202. Prerequisite: MATH 145 or CSC 161.
- 201B. *Logic Application to Software* 3 s.h.
Every other year
Application of predicate logic and nontruth functional logics to software design and use. Logic programming (PROLOG), database and telecommunications schemata, query analysis, correctness proofs for subroutines, operating system kernels, security. Finite state machines and temporal logic applied to protocol specification. Prerequisite: CSC 201A or MATH 202.
202. *Computability* 3 s.h.
Fall, Spring
Mathematical language of theoretical computer science (sets, n-tuples, relations, functions, languages, predicates, quantifiers, proof methods such as induction, diagonalization and the pigeonhole principle). The equivalence of various models of computation (Church's Thesis): Turing machines, extended Turing machines, nondeterministic Turing machines, the μ -recursive functions. Primitive recursive functions, Gödel numbering, the halting problem, other unsolvable problems as time permits. Recursive sets and recursively enumerable sets. Prerequisite: CSC 161.
204. *Algorithms I: Sorting and Searching* 3 s.h.
Fall, Spring
Basic techniques for estimating the efficiency of algorithms. Searching algorithms: sequential, binary, Fibonacci, tree search, tries, hashing (study of several hash functions). Sorting algorithms: heapsort, mergesort, quicksort, binsort. Balanced trees: AVL trees, Hoffman's algorithm. Equivalence relations and compressed balanced trees. Topological sorting. External sorting: merge sorting, multiway merge, B-trees (2-3 trees, 5-way trees). Prerequisite: CSC 120.
205. *Algorithms II: Combinatorial Algorithms* s.h.
Once a year
String and pattern matching algorithms. Maximum flow. Other graph algorithms: spanning trees, shortest path, transitive closure, biconnectivity, strong connectivity, and the like. Fast median algorithm. Fast matrix multiplication. Fast matrix inversion. Prerequisite: CSC 120.
206. *Analysis of Algorithms and Complexity Theory* 3 s.h.
Periodically
Asymptotics, recurrence relations, lower bound theory including comparison trees for sorting and searching. Oracles. Lower bounds on parallel computation. Combinatorial optimization. Branch and bound: Knapsack problem, FFT and applications. Integer and polynomial arithmetic. Analysis of divide and conquer algorithms, dynamic programming, greedy algorithms, backtracking. Nondeterministic algorithms. The classes P and NP. NP completeness. Complexity hierarchy. Prerequisite: CSC 161.
207. *Advanced Data Structures* 3 s.h.
Fall, Spring
Managing multiple stacks and queues. Stack series. Permutations obtainable from stacks and queues. Concatenatable queues. Locating repeated substrings: an application of stacks. Stack and queue operation sequences. Set representation methods. The union-find algorithm. Trees: Robson traversal, Lindstrom scanning, Siklossy traversal. Generalized lists. Mergeable heaps. Files as a data structure. Storage compaction. Garbage collection. Prerequisite: CSC 120.
208. *Formal Languages, Grammars and Automata* 3 s.h.
Once a year
Languages, the grammars that generate them and the machines that accept them. Regular languages. Finite automata—deterministic and nondeterministic. Transition functions and state diagrams. Context-free languages and pushdown automata. Context-free grammars and compiler design. Context-sensitive languages and linear-bounded automata. Closure results. Prerequisite: CSC 161.
212. *Database Design II* 3 s.h.
Periodically
Advanced aspects of the IMS data model and data sublanguage. A study of the network database design including the COADASYL DBTG system. A comparative analysis of the relational, hierarchical and network approaches to database design. Prerequisite: CSC 254.
214. *Computer Modeling* 3 s.h.
Periodically
Construction of models for computer simulation of real systems. Application of probability and distribution theory, statistical estimation techniques, Monte Carlo methods. Application of modeling to large-scale political and social systems. Implementation on computer using various simulation languages. Prerequisites: CSC 16, 185. Pass/Fail option for nonmajors only. Credit given for this course or CSC 132, not both.
216. *Quantitative Approaches to Decision Making* 3 s.h.
Periodically
The role of operations research and management science in the decision-making process integrated with the development and use of computer programs for problem solving. Topics include network analysis, decision theory, inventory models, waiting line models, dynamic programming, Markov processes, and parametric and integer programming. Prerequisite: CSC 185 or equivalent. No credit toward the M.S. degree in Computer Science.

252. *Survey of Programming Languages* 3 s.h.
Once a year
Survey and comparative analysis of high-level languages such as PL/1, FORTRAN, SNOBOL, LISP, APL, Pascal, ALGOL, C, Ada, SETL, with emphasis on special features. Consideration of data types, control structures, storage allocation and other programming language constructs. Prerequisite: CSC 120. Credit given for this course or CSC 123, not both.
253. *Design of Programming Languages* 3 s.h.
Once a year
Topics include: libraries, subroutines, parameter transmission, data abstraction, exception handling, design and implementation of Ada, Simula 67, SETL. Concurrency, input-output, functional programming, dataflow programming languages, VAL, object-oriented programming languages. Prerequisites: CSC 207, 252 or 123, or both 120 and permission of instructor.
254. *Database Design* 3 s.h.
Once a year
Study current methods of information system design. Data independence, data models and sublanguages. An overview of the hierarchical, relational and network approaches to database design. An in-depth study of the relational database design. Prerequisite: CSC 120.
256. *Advanced Operating Systems Design* 3 s.h.
Once a year
Analytical models of operating systems. An examination of the major models that have been used to study operating systems and the computer systems which they manage. Petri nets, dataflow diagrams and other models of parallel behavior are studied. Introduction to the fundamentals of queuing theory. Prerequisite: CSC 112.
258. *Compiler Construction* 3 s.h.
Once a year
Design and implementation of compilers for Pascal and ALGOL-type languages. Lexical scanning, symbol tables, BNF grammars, parsing techniques. Error detection and diagnostics. Data representation, data structures, run-time storage organization and dynamic storage allocation. Semantic routines, internal forms, code generation and optimization techniques. Credit given for this course or CSC 124, not both. Prerequisites: CSC 110, 161.
259. *Compiler Construction Laboratory* 2 s.h.
Periodically
Hands-on experience writing and debugging lexical analysis and parsing phases of compilers. Memory management: stacks and heaps. Dataflow analysis, error handling and patching. High-performance compilers. Prerequisite: CSC 258.
260. *Combinatorics and Graph Theory* 3 s.h.
Once a year
Study of combinatorial and graphical techniques for complexity analysis including generating functions, recurrence relations, Polya's theory of counting, planar directed and undirected graphs, and NP-complete problems. Applications of the techniques to analysis of algorithms in graph theory, and sorting and searching. Prerequisite: CSC 205.
265. *Numerical Methods I: Analysis* 3 s.h.
Periodically
Floating-point arithmetic. Finite-difference calculus. Polynomial, inverse, spline interpolation. Approximation: least-squares, polynomial, Chebyshev, rational functions. Numerical integration and differentiation. Solution of nonlinear equations. Solution of ordinary differential equations. Same as MATH 265. Prerequisite: CSC 102 or ENGG 101 or MATH 147.
267. *Numerical Methods II: Linear Algebra* 3 s.h.
Periodically
Review of linear algebra. Direct methods for linear equations. Norms, condition numbers, error analysis. Relaxation and iterative methods. Solution of eigenvalue problems. Boundary-value problems and overdetermined systems. Prerequisite: CSC 265.
269. *Computer Graphics* 3 s.h.
Once a year
Survey of the hardware, software and techniques used in computer graphics. Three types of graphics hardware: refresh, storage and raster scan. Two-dimensional transformation, clipping, windowing, display files, input devices. Three-dimensional graphics covered as time permits. Prerequisite: CSC 120.
270. *Artificial Intelligence I* 3 s.h.
Once a year
Goals of artificial intelligence, state-space search methods, optimal search, chronological backtracking, dependency-directed backtracking, BLOCKSWORLD, and/or trees and goals, question-answering, production systems, expert system examples, minimaxing with alpha-beta pruning and game playing. Control paradigms, GPS, geometric analogies, SOUNDSEX code, propagating numeric constraints, inductive inference and computer learning, introduction to mechanical theorem proving for the propositional logic. Prerequisite: CSC 120.
271. *Artificial Intelligence II* 3 s.h.
Once a year
Rigorous study of optimal search methods, decomposable and commutative production systems, mechanical theorem proving for the predicate logic, skolem functions, more on computer learning, introduction to LISP, pattern matching, introduction to natural language processing, use of logic in problem-solving and problem representation, readings from the literature. Prerequisite: CSC 270.
274. *Natural Language Processing* 3 s.h.
Periodically
Study of NLP systems such as question-answering systems, dialogue systems, paraphrasing and summarizing systems, etc. Transformational grammars, augmented transition networks, frames, semantics, logic in NLP. The computational applicability of various linguistic frameworks. Prerequisite: CSC 270.
275. *Pattern Recognition* 3 s.h.
Periodically
Feature evaluation, selection and extraction; similarity measures and classifications. Maximum likelihood, minimax procedures. Data structures for recognition. Applications to image and character recognition, chemical analysis, speech and voice recognition, automated medical diagnosis. Prerequisite: CSC 120.
276. *Robotics* 3 s.h.
Once a year
Surveys geometrical, kinematic, dynamic and software issues relating to the design and use of robot manipulators. Motion in three-dimensional space, force sensors, LED sensors, robot programming languages, (e.g., AML) and parts assembly using robots. Experimental research involving robot sensors of various kinds. Prerequisites: MATH 29, CSC 120.
278. *Expert Systems* 3 s.h.
Once a year
Survey of existing expert systems and the principles that underlie them. Production systems, problem-solving systems. Representation of knowledge, including data structures for knowledge representation. Machine learning; reasoning about problems. Programming techniques; introduction to Prolog and LISP languages; expert-system generators. Prerequisite: CSC 270.
279. *Computer Vision* 3 s.h.
Once a year
Surveys the tools used in image formation, mathematical foundations of the Canmar processing method. Segmented images,

texture, pattern recognition, matching, inference, 2D and 3D structures, relaxation labelling, enhancements and deblurring. Prerequisite: CSC 270.

280. *Logic Design and Switching Theory* 3 s.h.
Once a year

Review of Boolean algebra and combinatorial circuits. Karnaugh maps. Finite-state transducers. Deterministic and non-deterministic finite-state automata. State minimization, incompletely-specified machines, testing sequences. Lattices, regular sets. Prerequisite: CSC 110.

282. *Real-Time Systems* 3 s.h.
Once a year

A comprehensive examination of real-time systems from inception to implementation, focusing on introductory hardware and software concepts, design of applications programs, function and structure of on-line operating systems, organization of files and databases. Testing of on-line systems. Basic theory of data transmission and telecommunications access methods. Prerequisites: CSC 110, 112.

284. *Computer Communication Networks and Distributed Processing* 3 s.h.
Once a year

Introduction to data communication. Standard protocols and methods. Detailed study of an existing network (e.g., AR-Panet). Problems, techniques and performance measurements. Problems and methods for distributed processing and distributed databases. Prerequisite: CSC 112.

286. *Computer Organization I* 3 s.h.
Once a year

A comparative analysis of the design and capability of microprocessors, minicomputers and large scale systems. Multiprocessor systems, distributed systems, LSI technology, emulators and microprogramming, high speed buffer storage, parallelisms, pipeline computers. A review of current and future trends in computer design. Prerequisites: CSC 110, 112.

287. *Computer Organization II* 3 s.h.
Once a year

Design and evaluation of computer system models. Modelling languages and simulation. Design automation of digital systems. Memory hierarchies and I/O processing. Highly parallel architectures; array processors. Use of pipelining in computer architectures. High-level-language machines. Prerequisite: CSC 286.

290. *Seminar: Special Topics* 3 s.h.
Fall, Spring

Topics are chosen from areas of current interest such as microprocessors, minicomputers, structured programming, computer-resource management, newly released computer systems, new programming languages, heuristic programming, automatic-deductive systems, parsing methods, compiler optimization, theory of computability, formal languages and automata. May be repeated when topics vary. Prerequisite: permission of department.

300. *Independent Projects* 3 s.h.
Fall, Spring

Prerequisite: permission of department and the completion of 21 graduate credits. Credit given for this course or CSC 301-302, not both.

301-302. *Thesis* 3 s.h. each
Fall, Spring

Advanced project carried out by the student, under supervision of a faculty member. An oral presentation is required as well as a written thesis. Prerequisite: permission of department and the completion of 21 graduate credits. Credit given for CSC 300 or 301-302, not both.

Counseling (COUN)

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

Associate Professor Johnson, *Program Coordinator*

MASTER OF SCIENCE IN EDUCATION, CERTIFICATE OF ADVANCED STUDY AND PROFESSIONAL DIPLOMA IN COUNSELING

The counseling programs prepare qualified candidates for positions such as school counselor, employment counselor, community counselor and college student development counselor. The programs are registered with the New York State Education Department. Graduates are recommended by Hofstra University for certification as school counselors. In general, candidates completing the programs are eligible for such certification in other states as well.

The programs are at several graduate levels:

1. Master of Science in Education program with specialization in counseling;
2. Certificate of Advanced Study program for candidates with a master's degree in a noncounseling field;
3. Professional Diploma program for students holding a master's degree or certificate of advanced study (CAS) in counseling. The program requires 60 hours of graduate studies in counseling. Credits earned toward the master's/CAS may be counted toward this total. A minimum of 24 hours must be taken in residence at Hofstra.

Program elements may be modified in accordance with the background and experience of candidates and their individual goals. Prospective candidates are welcome to arrange for introductory and advisory interviews with departmental advisers. The transfer of graduate credit in counseling course work earned at another accredited institution within the previous five years can be arranged, up to a limit of 9 semester hours, upon program adviser and university approval.

ADMISSION REQUIREMENTS

Application for admission is made to the Graduate Admissions Office in the Admissions Center where directions are given for securing transcripts of previous schooling and other necessary information.

1. Bachelor's degree from an accredited institution.
2. Graduate Record Examination (GRE): minimum Verbal score of 450 and a combined Verbal and Quantitative score of 900. Applicants who hold a master's degree are not required to submit GRE scores provided their grade-point average on their previous graduate work is above a B (3.2).
3. Three letters of reference.
4. Personal essay (professional goals and objectives).
5. Personal interview with an adviser in counseling.

Because students' programs will be developed through individual advisement and will be dependent on individual students' previous pattern of studies, the total number of semester hours required for the program may vary from student to student. Those lacking sufficient study in behavioral sciences will need to meet certain prerequisites. These prerequisites may not be applied toward the professional diploma. (See the prerequisites section below.) In order to qualify for provisional school counselor certification, students must demonstrate in the internship the competencies necessary for assuming a school counselor position. In order to qualify for permanent school counselor certification, students must demonstrate expertise in a special area (e.g., family counseling, life career counseling, testing).

The Master of Science and Certificate of Advanced Study requirements are listed below. The Professional Diploma requires 60 credits of graduate courses in counseling. Individual

programs are developed, under advisement, in accordance with the student's career goals. Students who are interested in the Professional Diploma in Marriage and Family Therapy would follow the program outlined on page 291.

PREREQUISITE AND COREQUISITE REQUIREMENTS

NOTE: students must complete all nine credits of the prerequisite course work listed below prior to beginning COUN 223, *Theories and Principles of Counseling*. The nine credits of corequisite course work listed below may be satisfied concurrently with the first year of program studies, but must be completed prior to enrolling in COUN 253, *Counseling Practicum*. The prerequisite and corequisite courses may be satisfied at either the undergraduate or graduate level.

Prerequisites

- Required, 9 s.h.
- One course from each of the following areas must be completed prior to beginning COUN 223.
 - child psychology
 - adolescent psychology
 - personality theory

Corequisites

- Required, 9 s.h.
- Additional counseling-related courses in the behavioral sciences (e.g., peer counseling, human development, cross-cultural issues, human sexuality, selected sociology and psychology courses) selected under advisement and completed prior to COUN 253.

PROGRAM OF STUDY

	<i>Sem. Hrs.</i>
A. Required	30-33
COUN 223. <i>Theories & Principles of Counseling</i> , 6 s.h.	
224. <i>Counseling Practice in Contemporary Society</i> , 6 s.h.	
253. <i>Counseling Practicum</i> , 3 s.h.	
277. <i>Group Counseling & Guidance</i> , 3 s.h.	
290, 291. <i>Internship in School Counseling</i> , 6 s.h., or	
294, 295. <i>Internship in Counseling</i> , 6 s.h.	
PSY 216. <i>Behavior & Personality-Normal & Abnormal</i> , 3 s.h.	
RES 240. <i>Measurement & Evaluation in Education</i> , 3 s.h.	
Foundations of education 200-level or above course (for school counselor certification), 3 s.h.	
B. Electives, graduate-level courses taken under advisement and after completing COUN 223, <i>Theories and Principles of Counseling</i>.	$\frac{9-12}{42}$
C. Comprehensive Examination	
See complete graduate information, page 73.	

POST-MASTER'S DEGREE STUDY

Satisfactory completion of the program will be recognized with the awarding of a certificate by Hofstra University.*

Application for admission is made to the Graduate Admissions Office. An interview by a member of the department is required.

ADVANCED CERTIFICATE IN SCHOOL COUNSELOR BILINGUAL EXTENSION

This 15 semester hour program provides students with an opportunity to complete the coursework specified by the New York State Education Department to obtain bilingual education exten-

sion to State Certification in the Pupil Personnel Service Area of bilingual guidance counseling. Eligible students are those who qualify as bilingual and who are either

- a) matriculating in the school counselor certification track within Hofstra University's Counselor Education Program or,
- b) currently hold valid New York State provisional or permanent certification in school counseling.

Students will take designated courses from three bilingual extension component areas, under advisement, as follows:

- A) Cultural Perspectives, 3 or 6 s.h.
 - ANTH 200. *Fundamentals of Anthropology*, 3 s.h., and/or
 - 218. *People & Cultures of Latin America*, 3 s.h.
- B) Theory and Practice of Multicultural Education, 3-9 s.h.
 - *FDED 248. *Multicultural Education in the Metropolitan Area*, 3 s.h., and/or
 - CT 260. *Foundations, Theory and Practice of Bilingual, Bicultural Education*, 3 s.h., and/or
 - COUN 293. *Internship: School Counseling*, 3 s.h.
- C) Methods of Providing Services, 3-9 s.h.
 - *RES 241. *Testing & Evaluation of Bilingual Students*, 3 s.h., and/or
 - CT 266. *The Learner in the School*, 3 s.h., and/or
 - COUN 270. *Multicultural Counseling*, 3 s.h.

*Of the total 15 semester hour bilingual/bicultural credits, 6 s.h. may be satisfied by standard program requirements.

In addition, students must satisfy a language proficiency requirement as follows:

The candidate will submit evidence of having achieved a satisfactory level of oral and written proficiency in English and in the target language of instruction on the New York State Teacher Examinations.

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.

203. *Introduction to Counseling* 3 s.h.
 Fall, Spring, Summer
 Basic counseling skills for use by teachers and other helping professionals. Not open to counseling majors.

207. *Health Counseling* 3 s.h.
 Spring
 This course will introduce the health professional to basic counseling theories and skills. Attention is given to taking health histories, imparting accurate information and instructions to patients, the hospital bound person, fears and concerns of the seriously ill and their families. Family planning, abortion and genetic counseling.

223. *Theories and Principles of Counseling* 6 s.h.
 Fall, Spring

Designed to provide students with a general orientation to the counseling profession and the therapeutic process. Counselor role and responsibilities including legal and ethical implications involved in practice are explored. Major theoretical models of counseling and their application in different settings and with culturally diverse populations are examined. Students engage in self-awareness and counseling microskills development activities as part of their training in intervention techniques and the helping process. Prerequisites: one course from each of the following areas: child psychology, adolescent psychology and

*Since this is not a degree program, it may not be used toward permanent certification by persons who hold provisional teaching certificates.

- personality theory. (Formerly 223 & 224, *Core Course in Counseling*.)
224. *Counseling Practice in Contemporary Society* 6 s.h.
Fall, Spring
Designed to strengthen students' knowledge and skills in a wide array of topics and processes as they relate to counseling individuals in contemporary society. Areas studied include human development, decision-making models, career and life planning, special populations, multicultural competence, school guidance, human sexuality, family systems, substance abuse, crisis intervention, referral, consultation, appraisal, and research and evaluation. Through supervised classroom practice, students are assisted in integrating this knowledge base with continued counseling skills development while applying a problem-management model of counseling intervention. Prerequisite: COUN 223. (Formerly 223 & 224, *Core Course in Counseling*.)
225. *Counseling for Death, Dying and Bereavement* 3 s.h.
Periodically
This course is intended for educators, counselors and mental health professionals who are concerned about helping others and themselves cope with death, dying and bereavement. Topics are: effect of the knowledge of imminent death on the person and the family, children and death, attitudes toward death, helping person's role. Consideration of other topics depends on the interests and needs of students in the class. Prerequisite: COUN 223 or permission of program adviser.
226. *Counseling for Post-High School Education* 3 s.h.
Periodically
Principles and techniques. Methods of working with college-bound students and their parents. Factors involved in college selection and college success. Prerequisites: COUN 223, 224 or permission of program adviser.
227. *Career Counseling Techniques* 3 s.h.
Periodically
Information, procedures and processes of career counseling are presented. Students engage in exercises designed to build upon their existing knowledge and skills in career counseling. Techniques of working with people and their work and/or employment concerns are developed. Models of employee assistance programs and career counseling workshops are examined. Prerequisites: COUN 223, 224 or permission of program adviser.
228. *Assertiveness Training for Counselors* 3 s.h.
Periodically
Designed to aid the helping professional and others in developing nondefensive, nonmanipulating behaviors leading to increased self-assurance in interaction with others. Prerequisite: COUN 223 or permission of program adviser.
229. *Counseling the Compulsive Person* 3 s.h.
Periodically
Theories of compulsive behavior are explored. Students have direct contact with persons exhibiting compulsive behavior. Prerequisite: COUN 223 or permission of program adviser.
235. *Values, Realization, Decision Making and Creative Problem Solving* 3 s.h.
Once a year
Using the process and principles of decision making and values clarification as a base, development of creative problem solving skills is the focus of this course. Application of these skills in settings such as school groups, counseling, classroom activities, career and life planning and mid-life planning are considered. Prerequisite: COUN 223 or permission of program adviser.
237. *Counseling Families of the Elderly* 3 s.h.
Spring
Basic developmental processes which reflect the fundamental changes occurring during the aging process are examined initially from a sociohistorical perspective. Subsequently, the unique features of later adult development and its psychological effects on the person's family are examined. Concerned with the nonphysical development of older individuals and the effects of these life cycle growth patterns and transitions on their families. Specific counseling theories and interventions are presented for each area of transition. Prerequisite: COUN 223 or permission of program adviser.
244. *Interviewing and Therapeutic Counseling with the Aging* 3 s.h.
Once a year
Provides the skills and expertise counselors need in order to serve the elderly. Attention is given to various interviewing and therapeutic techniques which are specific to the elderly and incorporate client perceptions and understandings of life events. Emphasis on the nature and art of interviewing and a range of counselor concerns such as career counseling, retirement counseling, and counseling regarding dying and death. Prerequisite: COUN 223 or permission of program adviser.
250. *Rational Emotive Therapy* 3 s.h.
Periodically
Designed to introduce the counselor to the fundamental aspects of rational emotive psychotherapy. Prerequisite: COUN 223 or permission of program adviser.
253. *Counseling Practicum* 3 s.h.
Fall, Spring, Summer
Supervised counseling of individual client(s) in school and alternate settings. Prerequisite: COUN 277 or permission of program adviser. Pass/Fail grade only.
255. *Organization and Conduct of the Guidance Program* 3 s.h.
Periodically
Organization, administration and operation of the complete guidance program in the several school levels. Prerequisite: COUN 224 or equivalent.
256. *Effectiveness Training* 3 s.h.
Periodically
This didactic and experiential course examines the theoretical basis of effectiveness training, as well as skills suggested for the improvement of communications and relationships. Included in the program are: evaluating behavior, problem ownership, I-messages, active listening and problem solving. Prerequisite: COUN 223 or permission of program adviser.
257. *Introduction to Reality Therapy* 3 s.h.
Once a year
An introduction to the principles and techniques of reality therapy as applicable in school, agency and institutional settings. Discussion of behavior control theory and its relationship to counseling interventions. Development of counseling skills by engaging in a wide variety of activities; structured exercises, demonstrations, role play; peer counseling and videotaping. Students are expected to demonstrate their understanding of the principles and techniques of reality therapy by engaging in counseling both in the classroom and other appropriate settings. Prerequisite: COUN 223 or permission of program adviser.
260. *Developmental School Guidance Practice* 3 s.h.
Once a year
Designed to present the theoretical principles, practical skills and resource knowledge involved in implementing a developmental guidance program aimed at proactively meeting the emotional, career-related, and academic needs of preadolescents and adolescents in the schools (6-12). Prerequisite: COUN 224 or permission of program adviser.

270. *Multicultural Counseling* 3 s.h.
Once a year
Course is intended to prepare counselors to become more effective service providers in their work with persons from culturally diverse backgrounds. Organized around three developmental objectives: to increase counselor self-awareness and sensitivity to cultural differences; to acquire knowledge about the cultural values, behaviors, and worldviews of selected cultural groups; and to develop multicultural counseling skills and competencies. Prerequisite: COUN 223 or permission of program adviser.
- 271, 272. *Advanced Counseling Theory and Practice* 3 s.h. each
Periodically
Intensive analysis and discussion of research in counseling with continued supervised counseling practice. Prerequisite: COUN 253, or equivalent and permission of instructor.
276. *Community Resources and Relationships* 3 s.h.
Periodically
Study of the responsibilities of guidance counselors in relation to the community. Methods of working with community agencies and organizations. Experiences in a local community, identifying community resources, interpreting guidance programs and serving as a resource to community organizations. Prerequisite: COUN 224 or equivalent.
277. *Group Counseling and Guidance* 3 s.h.
Fall, Spring, Summer
Principles, techniques and uses of group counseling and of group guidance activities. Prerequisite: COUN 224 or equivalent.
278. *Drug/Alcohol Abuse Counseling* 3 s.h.
Periodically
Historical, legal and psychological factors concerned with drug and alcohol abuse. Consideration of counselor's role and treatment modalities. Opportunities for observation, field trips and practical application of counseling techniques. Prerequisites: COUN 224, 253 or permission.
279. *Human Sexuality and Counseling* 3 s.h.
Fall, Summer
Designed to aid the counselor in gaining greater skills and improved effectiveness in working with sexual concerns of clients. Feelings about sexuality, gaining greater awareness of attitudes and beliefs about sexual conduct, and aiding clients to explore their concerns about sexuality are emphasized. Prerequisite: COUN 223 or permission.
- 280 through 289, A-Z. *Workshops* 1-4 s.h. each
Periodically
Designed to meet the needs of specific groups of students or educators.
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.
- 290, 291, 292, 293. *Internship: School Counseling* 3 s.h. each
Fall, Spring, Summer
Cooperatively supervised experience in guidance and counseling in selected schools. Monthly seminar for consideration of problems encountered in the field. Required for school counselor certification. Prerequisites: COUN 224, 253. By permission only.
- 294, 295, 296, 297. *Internship: Counseling* 3 s.h. each
Fall, Spring, Summer
Cooperatively supervised experience in guidance and counseling in selected colleges, other post-high school institutions and/or agencies. Monthly seminars for consideration of problems encountered in the field. Prerequisites: COUN 224, 253. By permission only.
310. *The Person Centered Approach in Counseling and Teaching* 3 s.h.
Once a year
Participants study the person-centered (Rogerian) approach to counseling and teaching, analyze its basic hypotheses and review recent research. Essential skills are demonstrated and practiced. Prerequisite: COUN 223 or permission of program adviser.

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

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

Associate Professor Wong, *Chairperson*

Professors Bowe, Gellman, Gold; Associate Professors Johnson, Lechowicz, Zalma; Assistant Professors Bloomgarden, Gonzalez-Dolginco, McLean, Schwartz, Sciarra; Special Assistant Professor Chang.

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 pages 69, 77.

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.

201. *Mental Health in the Classroom* 3 s.h.
Summer

Origins and growth of the concept of mental health and its relevance to education. Particular attention is devoted to interrelation of emotional and intellectual processes in both student and teacher. Open to those engaged in teaching or a related profession.

202. *Social Psychology and Education* 3 s.h.
Periodically

An examination of the relevance to education of theories of social psychology and such applications thereof as group dynamics.

230, 231. *Advanced Educational Psychology* 3 s.h. each
Fall, Spring

In-depth study of different theoretical approaches to the understanding of school performance. Current affective and cognitive theories are studied with emphasis on research implications. Prerequisite: CRSR 113 or equivalent.

248. *Lifelong Learning for the Aging* 3 s.h.
Periodically

While adult learning has become a well-developed and mature discipline, less emphasis has been given to the educational and intellectual interests of the older adult. Focus on the relationship between teaching and learning, and the aging process. Emphasis on the special aspects and issues involved in lifelong learning for the more senior members of our society. Pass/Fail grade only.

251, 252. *Readings* 2-3 s.h. each
Fall, Spring, Summer

Directed readings on topics of interest to the student. Prerequisite: permission of instructor.

280 through 289, A-Z. *Workshops* 1-4 s.h. each
Periodically

Designed to meet the needs of specific groups of students or educators.

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.

301 & 302. *Master's Thesis Seminar I & II* 3 s.h. each
Fall, Spring

Development and implementation of thesis project.

therapeutic teams in hospitals, nursing homes, rehabilitation centers, schools and other therapeutic sites.

The Master's program in Creative Arts Therapy is approved by the American Art Therapy Association.

ADMISSION REQUIREMENTS

Application for admission is made to the Graduate Admissions Office in the Admissions Center. Candidates must meet the following admission requirements:

1. Hold a bachelor's degree from an accredited institution with a minimum grade-point average of 2.8;
2. have completed 12 semester hours in psychology (including developmental and abnormal);
3. have completed 15 semester hours in studio art;
4. show competency in art by presenting a portfolio (in cases of an exceptional portfolio, studio art credits may be waived at the discretion of the program coordinator);
5. personal interview with the program coordinator;
6. three letters of recommendation from recent employers or undergraduate professors.

PROGRAM REQUIREMENTS

	<i>Sem. Hrs.</i>
A. Core Curriculum	29-32
CAT 210. <i>Foundations of Art Therapy</i> , 3 s.h.	
211. <i>Art Therapy with Children</i> , 3 s.h.	
221 & 222. <i>Fieldwork: Creative Arts Therapy</i> , 1 s.h. each	
209. <i>Art Media in Art Therapy</i> , 3 s.h.	
212. <i>Group Art Therapy</i> , 3 s.h.	
214. <i>Art Therapy Methods I</i> , 3 s.h.	
215. <i>Art Therapy Methods II</i> , 3 s.h.	
218 & 219. <i>Internship: Creative Arts Therapy</i> , 3 s.h. each	
300. <i>Seminar: Creative Arts Therapy</i> , 3 s.h. or	
301 & 302. <i>Master's Thesis Seminar I & II</i> , 3 s.h. each	
B. Psychosocial Requirements	15
COUN 223. <i>Theories & Principles of Counseling</i> , 6 s.h.	
PSY 216. <i>Behavior & Personality—Normal & Abnormal</i> , 3 s.h.	
Approved electives, 6 s.h.	
C. Fine arts studio courses	6
Approved electives	
D. Creative Arts Therapy Electives	3
Approved electives in art, dance, drama, music or poetry therapy.	
CAT 235. <i>Creativity</i> , 3 s.h.	
Waived if CAT 301 & 302 is taken.	

See complete graduate information, page 73.

MASTER OF SCIENCE IN EDUCATION: SPECIAL EDUCATION AND ART THERAPY

A dual Master of Science program in special education and art therapy leading to New York State certification in special education (K-12). For program requirements, see under Special Education, page 382.

Creative Arts Therapy (CAT)

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

MASTER OF ARTS: CREATIVE ARTS THERAPY

This 53 s.h. program of study is designed to prepare those candidates with competency in art to serve as members of

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.
209. *Art Media in Art Therapy* 3 s.h.
Fall
Studio course designed to help the student more fully integrate art with therapy. Emphasis on the creative use of traditional and nontraditional art materials, taking into account the nature of the materials and the needs of specific treatment populations. Prerequisites: CAT 210 or 211. There is a material fee of \$20.
210. *Foundations of Art Therapy* 3 s.h.
Fall, Spring
Orientation to current practice of art therapy as a profession. Survey of contributions of major art therapy theorists, key concepts of creativity and psychological theory in relation to art therapy. Consideration of clients with special needs, variety of art therapy approaches and institutional issues. On-site visits to hospitals, clinics, community center, nursing homes and special schools. Restricted to students in the creative arts therapy program and by permission of the instructor. (Formerly *Creative Arts Therapy Core: Introduction to Art Therapy*.)
211. *Art Therapy with Children* 3 s.h.
Fall, Spring
Art therapy as a creative treatment modality concerning children with typical development and children with handicapping conditions. Attention given to developmental concepts, diagnostic techniques, needs of the special child and art therapy treatment planning. Prerequisite: CAT 210 or permission of instructor. (Formerly *Creative Arts Therapy Core: Art Therapy with Children*.)
212. *Group Art Therapy* 3 s.h.
Spring
Study of theory and practice of group art therapy in clinical settings. Emphasis on the influences of art media and art therapy methods on group process. Stages of development, leadership styles and integration of other creative arts modalities are examined. Prerequisite: CAT 210 or permission of instructor.
213. *Development of the Expressive Aesthetic Experience* 3 s.h.
Periodically
Study through the media of the arts, consideration of expression in four modes: self-communing, communicative, analytic and aesthetic. Application of the model in the visual arts, music, dance and writing.
214. *Art Therapy Methods I* 3 s.h.
Fall, Spring
Projective techniques. Individual and group processes in art therapy. Diagnosis, goals assessment and treatment planning. Case presentations. Prerequisites: CAT 210, 212.
215. *Art Therapy Methods II* 3 s.h.
Fall, Spring
Advanced methods and procedures in art therapy. Family art therapy, advanced case presentations and therapeutic program development. Prerequisite: CAT 214.
- 218 & 219. *Internship: Creative Arts Therapy* 3 s.h. each
Fall, Spring
Supervised experience in selected therapeutic settings. Prerequisites: CAT 210, 211, 212. Prerequisites or corequisites: CAT 214, 215.
220. *Art Therapy for Adolescents* 3 s.h.
Periodically
An approach to the treatment of adolescents with developmental, emotional and social problems through the use of art as therapy. Prerequisite: CAT 210.
- 221 & 222. *Fieldwork: Creative Arts Therapy* 1 s.h. each
Fall, Spring
Supervised field observation experience in selected therapeutic settings. Corequisite for 221: CAT 210; Corequisite for 222: CAT 211. Pass/Fail grade only.
223. *Multicultural Art Therapy* 1 1/2 s.h.
Fall
This course is designed to promote understanding of various socio-cultural frameworks from which an effective art therapy program can be built. Attention is given to variables that require consideration when working with diverse groups of people. Students view contemporary art forms that express social concerns.
224. *Psychopharmacological/Psychiatric Issues in Art Therapy* 1 1/2 s.h.
Fall
This course studies a person from various perspectives. We look at the medical model: diagnosis (DSM-IVR), medication (psychopharmacology), the psychiatric mental status examination, and the person's internal experiences. From the perspective of non-medical interventions, we study appropriate art therapy techniques and approaches to remedy the problem. We specifically explore affective disorders, psychosis, substance abuse, and childhood disturbances. Students are exposed to the medical, psychological, and expressive aspects of clinical treatment.
235. *Creativity* 3 s.h.
Spring
Examination of the nature of creativity, concentrating on contemporary psychological perspectives. Students study conditions that foster creativity, current working definitions, the creative processes demonstrated by famous people and the dynamics of the creative person. The relationship between culture and creativity is also explored as are resources for use in different settings and with diverse populations. This course is suitable to students in all majors.
241. *Drama Therapy for the Helping Professional* 3 s.h.
Summer
An elective graduate course to acquaint students with the fundamentals of drama therapy as practiced today. Different forms of drama theater games, improvisations, role-play psychodrama and performance theater are now being used in hospitals, schools, prisons, recreation and rehabilitation centers, libraries, and nursing homes. Drama that is intentionally used for healing and personal growth is called drama therapy. Through lectures and experiential workshops, professional helpers learn how to incorporate drama therapy techniques into their work.
242. *Poetry/Bibliotherapy for the Helping Professional* 3 s.h.
January
An elective graduate course to acquaint students with the fundamentals of poetry and bibliotherapy as it is being practiced today. Every helping professional needs effective tools to encourage communication and develop honest self-expression and emotional awareness. Poetry, literature, and various forms of the

written word are used as dynamic therapeutic modalities in hospitals, schools, nursing homes, recreational and rehabilitation centers and libraries. Through lectures and experiential workshops, professional helpers learn how to incorporate expressive techniques into their work, as well as their personal lives.

249. *Therapeutic Art for the Elderly* 3 s.h.
Summer

Course emphasizes and explores the role of art in the lives of the elderly both for therapeutic purposes and for personal enrichment. Art as therapy is studied as a way of fostering self-expressions, increasing sensory stimulation and awareness, facilitating socialization, and reviewing and integrating life events. Use of art media, special techniques and methods of approach is discussed as they apply to working with institutionalized elderly and the elderly living in the community.

251, 252. *Readings* 2-3 s.h. each
Fall, Spring, Summer
Directed readings on topics of interest to the student. Prerequisite: permission of instructor.

280 through 289, A-Z. *Workshops* 1-4 s.h. each
Periodically
Designed to meet the needs of specific groups of students or educators.

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.

300. *Seminar: Creative Arts Therapy* 3 s.h.
Fall, Spring
Review of research methodology. Completion of a research paper based on an original study designed and executed by the student. Prerequisites: CAT 210, RES 258 or comparable undergraduate course.

NOTE: successful completion of CAT 300 in combination with an approved 200-level elective may be offered in place of the *Master's Thesis*, CRSR 301 & 302.

301 & 302. *Master's Thesis Seminar I & II* 3 s.h. each
Fall, Spring
Development and implementation of thesis project.

Creative Writing

SEE ENGLISH

Curriculum and Teaching (CT)

Professor Whitton, *Chairperson*

Areas of specialization are Elementary and Early Childhood Education, and Secondary Education. These areas are listed alphabetically.

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.

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.

200. *Introduction to Computer Technology in Education* 3 s.h.
Fall, Spring, Summer

A course for educators PreK-12. Focuses on methods for integrating computer technology across the school curriculum. Social, ethical, political, and philosophical implications of computers on instruction are considered. Includes familiarization with major types of software used in instruction and professional production, computer operations, problem-solving applications, and evaluations of computer-related materials.

210. *Introduction to Word Processors, Spreadsheets and Databases in Educational Settings* 3 s.h.
Periodically
Introduction to three of the principal computer-based tools for the professional educator. Includes their operating principles, applications to schools and classrooms, and their uses as instructional materials. Prerequisite: CT 200 or permission of instructor.

211. *Introduction to Teaching Programming in the Schools* 3 s.h.
Periodically
Introduction to BASIC and LOGO as implemented in the schools. Includes contrasting educational features of these languages and writing elementary programs adaptable to classroom use. Discussion of role of programming in the curriculum, elementary principles of instructional design and introduction to "structured programming." Prerequisite: CT 200 or permission of instructor.

213. *Applications of Computer Technology to Business Education* 3 s.h.
Periodically
Advanced course which treats the development and application of computer technology to teaching and learning in business education. Topics include office simulation, modeling and forecasting, uses of spreadsheets, database managers, word processors and accounting packages. Prerequisite: CT 200 or permission of instructor.

214. *Applications of Computer Technology to Elementary Education* 3 s.h.
Periodically
Advanced course which treats the application of computer technology to teaching and learning, PreK-6. Topics include computer-aided instruction, teaching of writing, use of LOGO as an instructional tool and strategies to use educational technology to enhance the differentiation of instruction. Prerequisite: CT 200 or permission of instructor.

215. *LOGO and Child Development* 3 s.h.
Periodically
Advanced course which treats the origins and educational applications of LOGO in terms of current research on child development. Examination of LOGO both as a graphics-oriented language and as a programming language. Prerequisites: course in child development and CT 200 or permission of instructor.

216. *Applications of Computer Technology to Mathematics Education* 3 s.h.
Periodically
Advanced course which treats the development and application of computer technology to teaching and learning in mathematics. Topics include graphing, probability and statistics, and the

- mathematical bases of computing. Prerequisite: CT 200 or permission of instructor.
217. *Applications of Computer Technology to Science Education* 3 s.h.
Periodically
Advanced course which treats the development and application of computer technology to teaching and learning in science education. Topics include simulation, data collection and analysis, and scientific methodology. Prerequisite: CT 200 or permission of instructor.
219. *Cognition and Instruction* 3 s.h.
Summer
An advanced course in theory and research in human cognition with emphasis on the implications of this work for teaching and learning. Topics include human abilities and their assessment, models of cognitive development, and perspectives on learning.
230. *Methods and Materials for Teaching Pascal in the Schools* 3 s.h.
Periodically
The features of this language are taught as they are implemented in schools. Program design and structured programming as a problem-solving tool are stressed. Prerequisites: CT 210 and 211 or permission of instructor.
231. *Methods and Materials for Teaching Computer Science in the Schools* 3 s.h.
Periodically
Use of Pascal as an instructional tool. Course treats the mathematical and technological bases for computer education as it is implemented in the schools. Implications of the Regents' Action Plan for using local-area networks, for curriculum design, teaching methods and student evaluation is investigated. Prerequisites: CT 210 and 211 or permission of instructor.
232. *Application of Computer Technology to the Management of Educational Systems* 3 s.h.
Periodically
Analysis, implementation, and evaluation of computer-based educational management and delivery systems. Prepares students to serve as resource persons and in-service instructors in classrooms, schools and school districts. Prerequisites: CT 210, 211, and 230 or permission of instructor.
- 241, 242. *Special Readings Seminar* 1-3 s.h. each
Fall, Spring, Summer
Investigations and reports on advanced educational topics adapted to the program of the student. Prerequisite: permission of instructor.
247. *Integrated Middle School Extension into Grades 5-6* 6 s.h.
Periodically
Integrated study of pre and early adolescents' development, alternative classroom and school organizations, cooperative strategies, and interdisciplinary curriculum development. Related field experience in grades 5-6 is required. Prerequisite: New York State Certificate of Qualification or Certified in 7-12.
248. *Integrated Middle School Extension into Grades 7-9* 6 s.h.
Periodically
Interdisciplinary curriculum work focusing on key discipline concepts is the centerpiece of this course. Instructional strategies and knowledge of the young adolescents' development as well as alternative classroom and school organizational design are stressed. Related field experience is required. Prerequisite: New York State Certificate of Qualification or Certified in PreK-6.
250. *Gender Issues in the Classroom* 3 s.h.
Summer
Addresses the educational research on gender equity in the classroom. Looking at school environments, kindergarten through grade 12, this course offers insights into gender equity in the areas of pedagogy, curriculum and routine classroom practice.
251. *Teaching: Summer Institute* 3 s.h.
Summer
The purpose of this course is to create an environment in which teachers and future teachers can engage in intensive reflection about the nature and purposes of schooling, and their own roles as teachers in creating meaningful and liberatory learning environments for their students.
252. *Portfolios and Authentic Assessment* 3 s.h.
Periodically
This course is designed primarily for teachers K-12 teaching subjects across the curriculum, school administrators, and pre-service teachers to address the implications of authentic assessment strategies on curriculum and evaluation. Unlike standardized tests, forms of authentic assessment, including portfolios, performance-based criteria, and holistic scoring rubrics, provide opportunities to examine student work and progress without taking time away from classroom instruction. Authentic assessment strategies can validate and encourage respect for all student voices in the classroom and provide a rich source of evidence of growth and understanding not available through traditional assessment methods. Pass/Fail grade only.
253. *Teaching for Thinking* 3 s.h.
Periodically
A course in the design of vehicles for curriculum and assessment that emphasize and develop students' thinking processes. Theory, research, and practice are examined on topics including constructivism, critical inquiry, project-based learning, and reflective self-assessment. Same as SED 253.
256. *The Newspaper as a Teaching Tool* 3 s.h.
Summer
This course introduces students to the newspaper as an educational tool for children of all grade levels, K-12, and in every subject area. The newspapers on Long Island and the Metropolitan area contribute editors, Newspaper in Education coordinators, and NIE managers as speakers in the workshop. Students tour *Newsday* and see the newspaper in production. The history and background of Newspapers in Education are presented. Students receive a comprehensive overview of NIE and the practical means to implement it in their classrooms. Curriculum materials and teaching strategies relating to the newspaper are employed.
260. *Foundations, Theory and Practice of Bilingual, Bicultural Education* 3 s.h.
Once a year
Consideration of the sociocultural, linguistic, and educational needs of language minority students and the programs designed to respond to their needs. Attention given to the history of bilingual education in the United States, including relevant legislation and litigation, as well as research that relates to the development of effective bilingual/bicultural education programs. Bilingual, bicultural education program models are presented and analyzed.
266. *The Learner in the School* 3 s.h.
Once a year
Implications for the educational programs of students who need to acquire English as the language of instruction: 1) the sociocultural background of students; 2) sociocultural patterns of the

school; and 3) affective and cognitive development. (Formerly SED.)

268. *Practicum: Teachers of Non-English Speaking Students* 3 s.h.

Once a year
Extended teaching practice under close clinical supervision. Admissions by application and interview. Applications obtainable at the Office of Field Placement to be returned by October 1 for the spring semester and by March 1 for the fall semester. Seminars meet weekly with supervisory personnel from the Curriculum and Teaching Department and public school districts to work intensively with specific student problems. Open only to students in the M.S. in Ed. Bilingual Secondary Education and M.S. in Ed. TESL Programs. Prerequisite: SED 267. Pass/Fail grade only. (Formerly ELED and SED.)

269. *Internship: Teachers of Non-English Speaking Students* 6 s.h.

Once a year
Close clinical supervision of M.S. in Education TESL, Bilingual Elementary or Secondary Education candidates in appropriate level public school settings. Admission by application and interview. Applications obtainable at the Office of Field Placement to be returned by October 1 for the spring semester and by March 1 for the fall semester. Prerequisites: for M.S. in Ed. TESL: ELED 225 or SED 267; for Elementary Bilingual Education: ELED 225 and 246 or 247 or 248; for Secondary Bilingual Education: SED 267 and 265. Pass/Fail grade only. (Formerly ELED and SED.)

272. *Technology and the Teaching of Writing* 3 s.h.

Periodically
Examines the use of computer-based technology as a tool for improving writing across curriculum areas. Specific prewriting, composing and revising programs for writers of different ages are evaluated. Students plan and demonstrate various computer writing environments.

275. *Selected Topics in Educational Software Development* 3 s.h.

Periodically
Advanced course in educational software development and applications. Although topics vary, the course treats the educational applications of algorithm analysis, data structures, recursion, adaptation of educational software among various microcomputers and languages. Prerequisite: CT 200 or permission of instructor.

280 through 289, A-Z. *Advanced Workshops* 1-3 s.h. each

Periodically
Specific workshops developed for joint participation of in-service teachers in elementary and secondary education.

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.

Dance (DNCE)

Administered by the Department of Drama and Dance. Professor Sander, *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, 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 82.

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. *Modern Dance I* # 2½ s.h.

Fall
12M. *Modern Dance II* # 2½ s.h.

Spring
13. *Modern Dance III* # 2 s.h.

Fall
14. *Modern Dance IV* # 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. (Formerly 11.)

12M. (Formerly 12.)

11A. *Modern Dance IA* # 2 s.h.

12A. *Modern Dance IIA* # 2 s.h.

13A. *Modern Dance IIIA* # 2 s.h.

14A. *Modern Dance IVA* # 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> # Fall	2½ s.h.	114. <i>Modern Dance VIII</i> Spring	2 s.h.
16M. <i>Ballet II</i> # Spring	2½ s.h.	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.	
17. <i>Ballet III</i> # Fall	2 s.h.	111M. (Formerly 111.) 112M. (Formerly 112.)	
18. <i>Ballet IV</i> Spring	2 s.h.	115M. <i>Ballet V</i> Fall	2½ s.h.
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.		116M. <i>Ballet VI</i> Spring	2½ s.h.
15M. (Formerly 15.)		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.	
15A. <i>Ballet IA</i> # Fall	2 s.h.	115M. (Formerly 115.) 116M. (Formerly 116.)	
16A. <i>Ballet IIA</i> # Spring	2 s.h.	121. <i>Choreography I</i> Spring	3 s.h.
17A. <i>Ballet IIIA</i> # Fall	2 s.h.	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.	
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.		122. <i>Choreography II</i> Spring	3 s.h.
25. <i>The Art of Dance Production</i> Fall	3 s.h.	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.	
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.		123. <i>Independent Study in Dance</i> Fall, Spring	1-3 s.h.
48. <i>Jazz Dance I</i> Fall, Spring	2 s.h.	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.	
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. (Formerly HPER 48.)		127. <i>Dance Appreciation</i> # Spring	3 s.h.
49. <i>Jazz Dance II</i> Fall	2 s.h.	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.	
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. (Formerly HPER 49.)		128. <i>History of Dance II</i> Fall	3 s.h.
50. <i>Jazz Dance III</i> Spring	2 s.h.	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.	
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. (Formerly HPER 51.)		130. <i>Dance Repertory</i> Fall	3 s.h.
111M. <i>Modern Dance V</i> Fall	2½ s.h.	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	
112M. <i>Modern Dance VI</i> Spring	2½ s.h.		
113. <i>Modern Dance VII</i> Fall	2 s.h.		

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.

Doctoral Programs

SEE PAGE 79.

Drama (DRAM)

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

Professor Kolb; Associate Professor Coppenger; Assistant Professors George, Giebel; 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 82.

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 86.

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 70.

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.

#Core course

13 & 14. <i>Speech for the Actor</i> 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.	3 s.h. each	59A # & 60A. <i>Acting Workshop</i> 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.	3 s.h. each
15. <i>Basic Stage Makeup</i> 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.	2 s.h.	78. <i>Theater Design Fundamentals: Methods and Materials #</i> 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.	3 s.h.
16. <i>Stage Lighting</i> 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 <i>Stage Lighting-Intermediate</i> .)	2 s.h.	100. <i>Honors Essay</i> 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.	3 s.h.
17. <i>Scene Construction and Painting Techniques</i> 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.	2 s.h.	103. <i>Senior Practicum</i> 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.	1-3 s.h.
18. <i>Costume Construction</i> 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.	2 s.h.	110. <i>Special Topics in Drama</i> See course description, page 403.	1-3 s.h.
19. <i>Rigging and Scenery for the Stage</i> 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.	2 s.h.	112. <i>Advanced Special Topics in Drama</i> 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.	1-3 s.h.
20. <i>Sound and Properties for the Stage</i> 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.	2 s.h.	115. <i>Independent Studies</i> 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.	1-3 s.h.
23 & 24. <i>Speech for the Actor (Advanced)</i> Once a year Further development of the voice as to range, flexibility, resonance; intensive work in diction for classical drama; dialects. 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.	2 s.h. each	119-120. <i>Playwriting</i> 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.	3 s.h. each
55. <i>Rehearsal and Performance—Theater</i> 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.	½ s.h.	131, 132. <i>History of the Theater</i> Every other year First semester: from the Greeks and Romans, through the Middle Ages and ending with the English Renaissance with emphasis	3 s.h. each
59 & 60. <i>Fundamentals of Acting</i> 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.	3 s.h. each	#Core course	

- 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 forces 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.
250. *Independent Studies* 1-3 s.h.
Periodically
Designed to permit students to pursue an individualized plan of *Research or creative work may be undertaken with periodic conferences set up to discuss the progress of the project. Permission of instructor.
- 277, 278. *Theater Methods in Educational Dramatics* 3 s.h. each
January, Spring, Summer
Designed especially for practicing teachers. First semester: theories and methods of creative dramatics, emphasizing the use of

drama in the classroom as a teaching and expressive medium. Major attention is devoted to the lower grades. Second semester: theories and methods of school dramatics leading toward formal presentation, emphasizing the principal phases of production. Major attention is devoted to the upper grades.

Economics (ECO)

Administered by the Department of Economics/Geography.
Professor Moghadam, *Chairperson*

Professors DeFreitas, Guttmann; Associate Professors Christensen, Kozlov; Assistant Professors Duffy, Mazzoleni.

THE AUGUSTUS B. WELLER CHAIR IN ECONOMICS is held by Dr. Irwin L. Kellner. See page 426.

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, 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, 141
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 82.

B.S. SPECIALIZATION IN APPLIED 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. Courses offered by the Department of Economics may not count 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:

A. ENGL 1-2 or placement examination;*

B. Core Requirement:

1) Humanities, 9 s.h. of core courses including 3 s.h. from the Creative Participation category and 6 s.h. from the Appreciation and Analysis category, including at least 3 s.h. of literature.

2) Natural sciences, 3 s.h.; mathematics: MATH 9, and 10 or 10E.

3) Social sciences: 6 s.h. of core courses, excluding economics. Must include 3 s.h. from the Behavioral Social Science and 3 s.h. from the History and Philosophy category.

4) Cross-Cultural: 3 s.h. of core course credit.

C. Language Requirement: LING 101 or completion of level 2 of a foreign language or placement above level 2 of a foreign language.

5. The following major requirements:

33 s.h. in economics courses: including 21 s.h. of the following: ECO 1 (or 7), 2, 130, 132, 144, 150, 184; 12 s.h. chosen from among 100-level economics electives (GEOG 135 may be used as an economics elective). At least 12 s.h. in the following: FIN 101, ACCT 1, 2, and one course in statistics. An additional 12 s.h. in social sciences (other than economics) and/or business.

Recommended: basic courses in computer science and the social sciences other than economics.

See Areas of Interest listed above under the B.A. Specialization.

TEACHING OF HIGH SCHOOL SOCIAL STUDIES, see page 364.

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 71.

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:

*See University Degree Requirements, page 66.

#Core course

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.

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; industrial 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 403.

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.

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 economics, 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.
141. *Labor Economics* 3 s.h.
Periodically
Development of American work force and labor movement. Analysis of current problems with emphasis on interrelationships of wages, productivity and employment. Prerequisite: one introductory course in economics.
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. (Formerly 151, 152.)
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.
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*.)
201. *General Economics* 3 s.h.
Fall, Spring, Summer
An intensive survey of basic economics. Open to matriculated M.B.A. students. No degree credit for M.B.A. students.
232. *Macroeconomic Theory* 3 s.h.
Periodically
Theory and measurement of variations in output, employment and income; causes and control of economic fluctuations; economic growth. Not open to students who have already taken an intermediate macroeconomic theory course.

Education and Allied Human Services, School of

SEE PAGE 119.

Educational Administration (EADM)

Administered by the Department of Foundations, Leadership and Policy Studies. Associate Professor Osterman, *Chairperson*

Professors Barnes, Kottkamp, Shakeshaft, Smith; Associate Professors Brieschke, Osterman; Assistant Professors Duarte, Richardson, Scott.

The Department of Foundations, Leadership and Policy Studies offers three programs in educational administration: Master of Science in Education, Certificate of Advanced Study in Educational Administration and the Doctor of Education in Educational and Policy Leadership. As part of the Doctoral Program, students also receive a Professional Diploma in Educational and Policy Leadership.

These three programs in educational administration are directed toward preparation as chief school district administrator, elementary or secondary school principal, supervisor of elementary and secondary education, supervisor of special education, chairperson of a secondary school department and other preK-12 leadership positions. These programs are approved by the New York State Education Department.

The Master of Science in Educational Administration and Policy Studies is a program designed to provide a basic introduction to preK-12 school administration and supervision for those students who work in settings such as independent schools who would like to pursue an advanced degree in educational administration, but who do not need New York State Administrative Certification.

The Certificate of Advanced Study (CAS) in Educational Administration is also a basic introduction to school leadership and supervision that prepares students for entry level leadership and supervisory positions. Prerequisites include at least two years of certified preK-12 teaching and a master's degree. Completion of this program qualifies the student for the New York State School Administrator/Supervisor Certificate and the School District Administrator Certificate.

The Doctoral Program in Educational Administration is a three-phase administrative leadership preparation program. It integrates strong components of research policy, theory and conceptual frames, and personal and organizational leadership to prepare students to be critically oriented and self-aware agents actively working for the educational improvement of children and youth.

Applications for admission are made to the Graduate Admissions Office in the Admissions Center. To be accepted into one of these programs the applicant must meet the admission requirements specified in the description of that program.

EDUCATION HONOR SOCIETIES, see page 77.

MASTER OF SCIENCE IN EDUCATIONAL ADMINISTRATION AND POLICY STUDIES

The master's program is designed to provide an interdisciplinary exploration of important policy issues in education and a basic introduction to PreK-12 school administrative leadership and supervision for those students who work in settings such as independent schools, libraries, museums, or publishing houses who would like to pursue an advanced degree in educational administration and policy, but do not need New York State administrative certification.

This program does not meet the New York State requirements for supervisory and administrative certification. Upon completion of the degree, students are advised to transfer into the Certificate of Advanced Study in Educational Administration Program which leads to New York State certification in educational administration.

This degree provides a basic introduction to school administrative leadership and supervision; an interdisciplinary exploration of important policy issues in education drawing heavily upon philosophical, historical, and social perspectives; and attention to teaching and learning in diverse settings. Considerable choice and flexibility is built in, responsive to student needs and interests.

Admission requires three departmental recommendation forms, from supervisors, a detailed resume of professional experiences, and a comprehensive statement of professional administrative goals and objectives (all to be typed). Associate Professor Osterman, *Director*

PROGRAM REQUIREMENTS

	<i>Sem. Hrs.</i>
Area 1. Administrative Strand	16
EADM 260. <i>Individuals in Organizations</i> , 6 s.h.	
261. <i>Schools as Social Organizations: Working With People</i> , 6 s.h.	
264A. <i>Framing Problems & Making Decisions</i> , 4 s.h.	
Area 2. Policy Strand	15
Students must choose a minimum of 3 s.h. from each of the areas designated below:	
2A. Philosophical Foundations of Education	
FDED 200. <i>Philosophy of Education</i>	
210. <i>Contemporary Educational Movements</i>	
220. <i>Aesthetic Education</i>	
252. <i>Ethics for Educators</i>	
2B. Historical Foundations of Education	
FDED 230. <i>History of Education in the United States</i>	
231. <i>Childhood & Adolescence in Historical Perspective</i>	
2C. Social Foundations of Education & Policy Issues	
FDED 211. <i>The School & Society</i>	
247. <i>The Family as Educator: Multicultural Dimensions</i>	
270. <i>Gender & Schooling: Implications for the Study & Administration of Schools</i>	
Area 3. Teaching & Learning Strand	3
ELED or SED 207. <i>Dynamics of Curricular Change</i>	
Area 4. Completion Projection	2
EADM 351. <i>Independent Study</i>	
	<hr/> 36

See complete graduate information, page 73.

CERTIFICATE OF ADVANCED STUDY IN EDUCATIONAL ADMINISTRATION

This (CAS) is a graduate program designed to prepare the student for entry level leadership positions such as teacher-leader, member of site-based management team, chairperson, assistant principal, principal, and supervisor. The Certificate Program qualifies the student for the New York State School Administrator/Supervisor Certificate and the School District Administrator Certificate. Upon completion of the Certificate Program, those students who seek to continue their academic preparation in educational administration may transfer to the doctoral program by meeting the doctoral requirements. The CAS Program represents the first 30 s.h. of course credit toward the doctorate for those who enter the doctoral program.

The CAS is a 30 s.h. program taken over five semesters (including summer sessions) which includes 6 s.h. of internship and 24 s.h. of courses. This completely prescribed program with no electives does not permit transfer credit, builds reflective practice into every course, and requires the internship to be taken over three semesters in conjunction with coursework.

ADMISSION CRITERIA

Applicants for the CAS must have at least two years of preK-12 certified teaching experience and possess a master's degree. Additionally, to be admitted into this program, applicants need

strong analytic ability, high administrative potential, and demonstrated success in teaching. Admission requirements for the first criteria will be assessed using the applicant's resume and an Achievement Profile Report prepared by the applicant. The applicant's statement of philosophy and goals as well as written references will be examined to determine both administrative potential and demonstrated success in teaching.

In addition to filing for admission with the Graduate Admissions Office with the usual application and transcripts, applicants will be requested to submit three department recommendation forms from administrators or supervisors, a detailed resume of professional experience, a completed Achievement Profile Report, and a comprehensive statement of professional administrative goals and objectives (all to be typed).

Students will be admitted in communities and will take their entire program with the other members of their community. Deadline for application for entrance is August 1 for Fall admission. Associate Professor Brieschke, *Program/Internship Coordinator*

PROGRAM AND SEQUENCE REQUIREMENTS

This 30 s.h. program is taken over five consecutive semesters, including summers, in the sequence listed below:

<i>Semester</i>		<i>Sem. Hrs.</i>
1	EADM 260. <i>Individuals in Organizations</i>	6
2	261. <i>Schools as Social Organizations: Working with People</i>	6
3	262A. <i>Understanding External Environments: Social, Political, Economic & Legal Contexts of Schools</i>	4
	263. <i>Administrative Internship I</i>	2
4	264A. <i>Framing Problems & Making Decisions</i>	4
	265. <i>Administrative Internship II</i>	2
5	266. <i>Educational Program Development, Delivery & Assessment</i>	4
	267. <i>Administrative Internship III</i>	<u>2</u>
		30

THE DOCTORAL PROGRAM

The degree of Doctor of Education in Educational and Policy Leadership prepares students for advanced professional responsibilities through an integrated program of research, policy, theory and personal and organizational leadership development.

The central focus of this program is to incorporate formal knowledge, inquiry, and personal development into the study of leadership so that graduates are enabled and committed to making real and important differences in the education and lives of children and youth. This is a program that through its students and graduates aims to focus and apply academic resources to educational development and improvement.

The minimum course requirements for the doctorate is 79 hours beyond completion of a master's degree. Candidates may be required, however, to complete more than 79 hours upon the recommendation of departmental faculty.

The doctoral program consists of three components: the Certificate of Advanced Study in Educational Leadership (CAS); the Advanced Professional Strand consisting of the doctoral core, including the research requirement, distributed and other electives; and the Doctoral Dissertation.

	<i>Sem. Hrs.</i>
Phase I: CAS	30

Phase II: Advanced Professional Studies: Professional Diploma

Doctoral Core:	
Introduction to Doctoral Studies	6
Research	16
Doctoral Distribution Electives:	9
Select one course from each area:	

- 1) Philosophical and Personal Reflections on Leadership
- 2) School and Society
- 3) Organizational Leadership

Other Electives: 9
 Selected with advisement from courses offered in the School of Education and Allied Human Services as well as from other graduate departments.

Students who satisfactorily complete Phase II course requirements including the written competency examinations described below, qualify to receive the Professional Diploma.

Phase III: Doctoral Dissertation

Dissertation Preparation and Research	9
Minimum total credits	<u>79</u>

Additional Program Requirements:

In addition to the course work and dissertation requirements, students will complete the following:

- A written competency examination consisting of two parts: Competency in Critical Analysis and Synthesis of Scholarly Work and Competency in Research Design and Analysis
- Doctoral Oral Examination A: A Self-Assessment of Personal Learning
- Doctoral Plan of Residency
- Doctoral Examination B: Proposal Hearing
- Doctoral Examination C: Dissertation Oral

Admission Requirements

Applicants must have completed a Master's degree and submit the following: a detailed resume of professional and related experiences; a comprehensive statement of professional leadership goals and objectives; official transcripts of undergraduate and graduate study; three Departmental Recommendation Forms; and a score at or above the 55 percentile on one of the following admissions examinations: Miller Analogy Test, Graduate Record Examination Graduate Management Admission Test, Law School Admission Test. Prior to admission, applicants must arrange for an interview with the Doctoral Director. If accepted for matriculation, the student must have access to a computer, preferably a laptop, and e-mail. Professor Kottkamp, Assistant Professor Richardson, *Doctoral Co-directors*.

See complete doctoral information, page 79.

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.

200. *The School as an Organization* 3 s.h.
 Once a year

Introductory course designed for master's-level students on the school as a complex social organization. Concept, structure and functions of educational organizations, with special emphasis on elementary and secondary schools. Explores the formal structure of school systems including the roles of the Federal Government, State Departments of Education, local school boards, public interest groups and parent-teacher organizations. Analyzes the relationship between educational research, policy and practice in local schools. May not be used to fulfill requirements for the Certificate of Advanced Study or doctoral programs. (Formerly *Introduction to Administration*.)

210. *Core Theory in Educational Administration* 6 s.h.
 Periodically

A study of concepts, theories, research methods and findings drawn largely from the behavioral sciences which can be applied in the practice of educational administration at all levels. Emphasizes and relationships, scientific management, bureaucracy, social systems, human motivation, decision making, leadership, organizational change, communications, and situational influences which shape education and educational administration in

the context of a multicultural society. Methods of instruction include lectures, class discussion, role-playing, student presentations, guest lecturers and use of audiovisual materials. Student achievement is evaluated on the content and quality of written papers, class participation and a final written exercise. Open only to matriculated students in CBAE educational administration programs.

211. *Core Practicum in Educational Administration* 6 s.h.
Periodically

This course moves educational administration from advanced theory into action. Using simulated materials reflecting the problems and issues of a particular school district, the course deals with administrator decision-making behavior in the context of a community which reflects a variety of multicultural characteristics and values. Political, social and economic pressures as well as educational needs are considered, and the use of group dynamics in the decision-making process is highlighted. Achievement is determined primarily through peer group and evaluations of competencies. Open only to matriculated students in CBAE educational administration programs.

214. *Theories and Practices of Supervision* 3 s.h.
Periodically

A systematic study of the theories and practices of supervision and the philosophies, rationales and assumptions upon which elementary and secondary school supervision is based. Theoretical concepts are conveyed by lectures and discussion; skills are acquired through roleplaying and case studies. Achievement is determined through papers and quality of class participation. Prerequisite: two years of teaching experience.

219. *Patterns of Building Unit Administration* 3 s.h.
Periodically

This course focuses on the administrative roles and functions of elementary and secondary school building administrators. The topics include tasks of a building administrator, school organization and staff utilization, curriculum development and improvement, leadership, supervision of individual performance, personnel management, facilities management, employee organization relations, student affairs, school public relations, basic school laws and sources of legal information. Methods of instruction include lecture and class discussion, small group exercises, student and guest presentations, written exercises and a final written exercise. Evaluation of student achievement is based on the quality of class participation and quality of written exercises.

222. *Human Relations in School Personnel Management* 3 s.h.
Periodically

The areas of motivation, group dynamics and leadership theory as well as the tasks of staff recruitment, selection, orientation and development are treated. Competencies are developed through case studies, roleplaying, lecture-discussions and substantive readings and reactions. Achievement is determined through the quality of work in these activities.

223. *School Business Administration II* 3 s.h.
Fall

An examination of the duties and responsibilities including an understanding of the role in relation to other members of the administrative team and an exploration of aspects of the business administrator's work in regard to office management, budget procedures, financial management, accounting and auditing, purchasing and supply management, insurance programs, capital outlay and debt service, school plant operation and maintenance, food service and transportation. Prerequisite: EADM 270. (Formerly *The School Business Administrator*.)

231. *School Public Relations* 3 s.h.
Periodically

Functions and responsibilities of the school administrator in the development and maintenance of effective school public relations. The meaning and purpose of school public relations, the public relations roles and functions of the board of education

and all school personnel, school-community relations, communication processes, techniques and strategies, the preparation of communications materials, handling criticism and attacks, and relations with the news media. Questions and problems as they emerge during the semester. Illustrated lectures, class discussion, group interaction, roleplaying, student presentations, guest lectures and individual student reading, research and written assignments. Student achievement is measured by the quality of class participation, written assignments and a culminating written exercise.

233. *Educational Facilities Planning* 3 s.h.
Periodically

Analysis of educational changes and architectural consequences, planning for flexible educational environments for present and future use, uses for underutilized schools, operation and maintenance, energy conservation and related problems. Slide lectures and visits to school are the principal methods of instruction. The achievement level of student is determined by application of the subject.

235. *Collective Negotiations in Education* 3 s.h.
Periodically

The history of collective bargaining in the labor movement; comparison of collective bargaining, professional negotiation and collective negotiation; pertinent state legislation; representation and recognition procedures; scope and process of negotiations, impasse procedures; issues and outcomes of teachers' strikes and sanctions; impact on administrative theory and practice. Lecture-discussion with some roleplaying of situations. Achievement is determined through term papers and student reports with competency assessed by course instructor.

241. *Supervision of Instruction and Curriculum Development* 3 s.h.
Periodically

This course surveys the organization, supervision and evaluation of curricular innovations and instructional programs as administered at the elementary and secondary school levels. Types of classroom arrangements (traditional, cluster and open); organization and scheduling plans (continuous progress, cross-grade grouping, departmentalization, dual progress plans, house plans, integrated day, modular scheduling, multi-age grouping, multi-unit plan, nongraded and self-contained classrooms); general instructional methods (computer-based, individualized, programmed, supervised independent study, supervised work experience and team teaching); and alternative approaches (alternative schools, community schools, mini-schools and school-within-a-school). Through reading assignments, peer presentations, class discussions and written examinations, students are expected to demonstrate to the instructor their competence in these four areas. Prerequisite: EADM 214.

243. *School Finance* 3 s.h.
Periodically

Study of the economic, political and legal aspects of financing public education, both from a general point of view and with specific attention to New York State. Areas considered include basic economic principles; local, state and federal financial support; systems analysis; taxing systems; fiscal aspects of equal educational opportunities; budgeting; purchasing; accounting; and reporting and communication of fiscal information. Lectures, class discussions, student reports, case studies. Achievement is evaluated on the content and quality of written papers, oral reports, class participation and on a final written exercise.

244. *School Law* 3 s.h.
Periodically

Study of the legal framework (national and New York State) within which public education operates. Areas considered are church-state relations, state agencies, local school boards, financing education, tort liability, teacher-personnel administration, the Taylor Law, tenure, desegregation, and constitutional rights

and freedoms of students. Case studies, lectures, class discussions and reports. Achievement is determined by the quality of written papers, oral reports, class discussion and a final written exercise. School attendance officers are advised to enroll in EADM 246.

245. *Selected Issues in School Administration* 3 s.h.
Periodically

Discussion and analysis of current vital issues in educational administration and their proposed solutions. Students are expected to research an issue, present it to the class and defend it. Achievement is determined by the quality of the written research report and the competencies demonstrated in the presentation and defense of the oral presentation in addition to other evidences.

246. *Public School Law for Attendance Officers* 4 s.h.
Periodically

The legal framework within which the conduct of public education takes place in New York State. Taught in conjunction with EADM 244 (see description); special independent attendance law research is required.

247. *Data Processing for School Administrators* 3 s.h.
Periodically

Consideration of the types of applications of computer systems typical to school situations. The organization of school computer equipment for the guidance function, computer-based instruction, information retrieval, school simulation for problem solving, and the development of a total information system are discussed and/or implemented. Instruction is conducted by lecture and demonstration, and assessed by instructor on basis of papers and projects submitted commensurate with evidences.

249. *Management Technology* 3 s.h.
Periodically

An investigation into the theory and application of management technologies to the administrative process in education. Forms of systems-based technologies are considered. In addition to reading widely, contributing to class discussions and other normal expectations, students are expected to apply various technologies to case problems and simulated situations. Achievement is determined in part through peer-group assessment of projects and instructor evaluation of competencies. Prerequisite: EADM 200 or 211 or by permission of instructor.

251, 252. *Readings* 1-3 s.h. each
Fall, Spring, Summer

The student selects and reads literature agreed upon with the instructor. Oral and written reports are made. Open only to advanced graduate study program students. Prerequisites: EADM 211 and permission of department chairperson. Pass/Fail grade only.

255. *Women in Educational Administration* 3 s.h.
Periodically

Acquaints students with the literature on women in educational administration in an effort to understand both how to get a job as a woman and how to keep it. Additionally, students explore the implications of gender-bias for research, theory and practice in educational administration. Pass/Fail grade only.

257. *The Reflective Administrator* 3 s.h.
Periodically

This course facilitates administrative performance by helping administrators to gain self-knowledge and develop self-reflection on their administrative actions. Students develop a platform or formal statement of their administrative intentions and then, with the help of the instructor and other students, examine the relationship between intentions and actual behaviors. Congruence and dissonance between intention and action are probed in a safe setting. Identified discrepancies provide points for individual decisions about changes in administrative behavior. Prerequisite: permission of instructor. Pass/Fail grade only.

258. *Gender and Schooling: Implications for the Study and Administration of Schools* 3 s.h.
Periodically

Goal of this course is to look at both the theoretical and practical implications of gender, providing a framework for thinking about issues as well as for acting on them. Same as FDED 270.

259. *The Administrator in Fiction* 3 s.h.
Once a year

Reflective course using contemporary novels to explore a variety of administrative themes, such as vision, leadership, organization, rationality and gender. Fiction is used as a lens to study personal constructions of meaning, to reflect on the spectrum of our internal lives in relation to administrative roles, and to explore the subjective experience of administration through aesthetics and imagination. Pass/Fail grade only.

260. *Individuals in Organizations* 6 s.h.
Once a year

This first course of the CAS program is designed to prepare individuals for formal and informal leadership roles in schools. Three interwoven strands provide focus to the course: the individual, the nature of administration and the characteristics of the organizational context. Taken together, the components of this course are building blocks which, when integrated, move the student toward the goal of educational leadership which embraces articulating vision, reflecting on one's own performance and taking a stance of critical questioning. Competencies are developed through case studies, role-playing, lecture/discussion, team and individual assignments, and substantive readings. Achievement is determined through the quality and degree of mastery demonstrated in the undertaking of these activities. Open only to matriculated students.

261. *Schools as Social Organizations: Working with People* 6 s.h.
Once a year

Examination of the human dimensions of organizational leadership. Building upon basic theory and research in the areas of motivation, communication, and group dynamics, students are encouraged to examine ways in which leaders, through their interaction with others, affect the quality of performance within the school setting. Special emphasis is given to the development of interpersonal and group communication skills which enhance individual motivation and organizational effectiveness. Competencies are developed through case studies, role-playing, lecture/discussion, team and individual assignments and substantive readings. Achievement is determined through the quality and degree of mastery demonstrated in the undertaking of these activities. Open only to matriculated students.

262A. *Understanding External Environments: Social, Political, Economic and Legal Contexts of Schools* 4 s.h.
Once a year

Exploration of the social, economic, political, and legal influences on educational policy and practice. The administrative implications of demographic change, shifts in societal expectations, political pressures, judicial and legislative actions, societal dysfunctions such as racism and sexism, and funding sources for schools are examined. Students relate these external environments to real school settings in an attempt to understand how external forces shape what happens in schools. Competencies are developed through case studies, role-playing, lecture/discussion, team and individual assignments, and substantive readings. Achievement is determined through the quality and degree of mastery demonstrated in the undertaking of these activities. Open only to matriculated students. (Formerly 264.)

263. *Administrative Internship I* 2 s.h.
Fall, Spring, Summer
A cooperatively guided administrative experience that focuses on the decision-making and problem-framing tasks of administrators. Students submit a plan of administrative and supervisory tasks to the Departmental Program and Internship Coordinator. These tasks are to be agreed upon by the coordinator and the school or district supervisor, with achievement to be determined against a stated list of competencies developed by the department and assessed by the school/district supervisor and the University supervisor. Registration by permission of the Departmental Program and Internship Coordinator. EADM 262A should be taken concurrently with, or prerequisite to this course. Open only to matriculated students in the CAS program. Pass/Fail grade only.
- 264A. *Framing Problems and Making Decisions* 4 s.h.
Once a year
Examines the processes of problem-framing and decision-making in educational organizations. The focus is on the general ideas and concepts that decision-makers use, or could use, to think systematically about the problems they face. Frameworks for conceptualizing issues, tools for selecting alternatives, and issues of implementation are examined. Understanding how to use school and district data to make decisions and formulate policy is emphasized. A broad array of analytical tools is applied to resolve simulated and real problems. Competencies are developed through case studies, role-playing, lecture/discussion, team and individual assignments, and substantive readings. Achievement is determined through the quality and degree of mastery demonstrated in the undertaking of these activities. Open only to matriculated students. (Formerly 262.)
265. *Administrative Internship II* 2 s.h.
Fall, Spring, Summer
A cooperatively guided administrative experience that focuses on the external environments that impact schools. Students submit a plan of administrative and supervisory tasks to the Departmental Program and Internship Coordinator. These tasks are to be agreed upon by the coordinator and the school or district supervisor, with achievement to be determined against a stated list of competencies developed by the department and assessed by the school/district supervisor and the University supervisor. Registration by permission of the Departmental Program and Internship Coordinator. EADM 264A should be taken concurrently with, or prerequisite to this course. Open only to matriculated students in the CAS program. Pass/Fail grade only.
266. *Educational Program Development, Delivery, and Assessment* 4 s.h.
Once a year
Introduces students to a variety of perspectives, including traditional as well as contemporary reconceptualization of curriculum and learning processes. Core educational technologies, including educational needs assessment, goal consensus testing, educational program planning (with participatory involvement, staff development, resource deployment, progress monitoring, budgeting, evaluation and accountability reporting components), educational change and risk-taking, school support services, and the nonacademic curriculum are studied. Competencies are developed through case studies, role-playing, lecture/discussion, team and individual assignments, and substantive readings. Achievement is determined through the quality and degree of mastery demonstrated in the undertaking of these activities. Open only to matriculated students.
267. *Administrative Internship III* 2 s.h.
Fall, Spring, Summer
A cooperatively guided administrative experience that focuses on educational program development, delivery, and assessment. Students submit a plan of administrative and supervisory tasks to the Departmental Program and Internship Coordinator. These tasks are to be agreed upon by the coordinator and the school or
- district supervisor, with achievement to be determined against a stated list of competencies developed by the department and assessed by the school/district supervisor and the University supervisor. Registration by permission of Departmental Program and Internship Coordinator. EADM 266 should be taken concurrently with, or prerequisite to this course. Open only to matriculated students in the CAS program. Pass/Fail grade only.
270. *School Business Administration I* 6 s.h.
Summer
A study of concepts, theories and practical applications of the current state of knowledge in school business administration. An examination of the laws impacting school business administration, an overview of school district budgets, the borrowing and investment of school district funds, accounting and auditing procedures, purchasing requirements and procedures, sources of revenue including State aid, health and safety issues and laws, personnel management, insurance, negotiations, transportation issues, managing facilities and operating school lunch programs. Practicing experts in each of these areas share their expertise during class sessions.
271. *Workshop: Middle Level Education* 3 s.h.
Summer
This week-long workshop provides an overview of the essential administrative elements and strategies characteristic of an effective middle level program. Specific topics include building an exemplary instructional program, encouraging creative and effective teaching strategies, fostering academic and affective growth in adolescents, and making the transition from a Junior High School to a Middle School. Nationally and locally known speakers are brought in to share their experiences and expertise. Pass/Fail grade.
- 280 through 289, A-Z. *Advanced Workshops* 1-4 s.h. each
Once a year
Special workshops of an advanced nature designed to meet the needs of specific groups.
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.
283. *Workshop: Administration of Programs for Exceptional Populations* 3 s.h.
Periodically
This workshop is a field problem course focused on the administration of programs for exceptional populations. Participants play the role of an administrator given responsibility for administering programs for exceptional populations along with other unrelated administrative responsibilities. Administrative field problems presented touch on legal, financial and operational issues related to compliance with New York State regulations. No attempt is made to discuss handicapping conditions beyond their legal definitions. Course goal is to increase understanding and awareness to a level that enables the practitioner to ask intelligent questions at critical phases of the administrative process. Evaluation of student progress is based on appropriate written work and class participation. Prerequisite: SPED 200 or permission of instructor.
300. *Doctoral Seminar* 3 s.h.
Fall
Special topic seminar designed for doctoral students. Content varies from year to year; specific descriptions will be available at registration. Generally the course focuses on the impact of change upon the school system with an analysis of the problems arising and the development of comprehensive strategies to move forward the educational enterprise. Open only to doctoral students. Pass/Fail grade only.
- 310, 311. *Administrative Internship* 3 s.h. each
Fall, Spring, Summer
A cooperatively guided administrative experience at the school building level. Students will submit a plan of administrative and

supervisory tasks to the departmental Internship Coordinator. These tasks to be agreed upon by the coordinator and the school building supervisor, with achievement to be determined against a stated list of competencies assessed by the school building supervisor and a University supervisor. Monthly seminars for consideration of problems confronted in the field. Registration only by permission of the departmental internship coordinator. Open only to matriculated students. Pass/Fail grade only.

312. *Administrative Internship* 3 s.h.
Fall, Spring, Summer

A cooperatively guided administrative experience at the central office level. Description is the same as for EADM 310, 311 except that experiences to be undertaken and supervisor designated is a member of the central office staff. Registration only by permission of the departmental Internship Coordinator. Open only to matriculated students. Pass/Fail grade only.

320-321. *Exploring the Field of Educational Administration: an Introduction to Doctoral Studies* 3 s.h. each

Fall, Spring
This two-semester sequence introduces doctoral students to the field of educational administration. Students develop a broad understanding of the field of educational administration, explore the history of inquiry in the field as well as current issues, and become familiar with its professional resources and organizations. Students also develop an understanding of doctoral study in the APS Department, articulate their own interests, and learn the skills and techniques required for doctoral study.

325. *Leadership and Education* 3 s.h.
Periodically

This course is an exploration of the theory and practice of leadership using a variety of models from the social sciences. Drawing upon a broad interdisciplinary framework, images and representations of leadership are explored in film, visual art, biography, management literature, children's books and organizational research for the purpose of facilitating thinking about leadership roles in society and the ways in which these considerations enter into educational discourse and the practice of administration in complex educational organizations.

351, 352. *Independent Study in Administration* 1-3 s.h. each
Fall, Spring, Summer

The advanced doctoral student will identify and define special projects or studies, approved by the adviser, related to school administration. The student then works independently, conferring with the adviser on an appropriately agreed upon schedule and produces the final report by the date stipulated. Open only to doctoral students by permission of the department chairperson. Pass/Fail grade only.

380. *Structure and Process in Educational Organizations* 3 s.h.

Once a year
This course helps the advanced graduate student develop a strong background in modern and emergent organizational theory as it applies to educational practice and administrative inquiry. Lays the groundwork for the advanced student to conceptualize either research into contemporary educational problems or improving administrative practice.

601. *Dissertation Seminar* 3 s.h.
Spring

Clarification and structuring of a dissertation topic as a research undertaking. Presentation, analysis and critique of participant's research outlines leading to departmental acceptance of the research proposal. Orientation to dissertation organization and writing format. Prerequisites: successful passing of the Doctoral Oral Qualifying Exam, approval of the residence plan of study, and completion of 12 s.h. of the doctoral program of studies including EADM 300. A minimum of 601 is required of all doctoral students in educational administration. Pass/Fail grade only.

602. *Dissertation Proposal Preparation* 3 s.h.
Fall, Spring, Summer

For students whose dissertation proposals have not been approved in 601. Registration in 602 is continuous until the proposal is accepted. No degree credit granted for 602.

604. *Dissertation Advisement* 3 s.h.
Fall, Spring, Summer

Doctoral candidates enroll in 604 upon departmental acceptance of the dissertation proposal. Registration in 604 is continuous until the dissertation is accepted.

Educational Studies (ED ST)

Administered by the Department of Foundations, Leadership and Policy Studies. Associate Professor Osterman, *Chairperson*

Professors D. Barnes and Naylor, *Directors*

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.
FDSD	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)

Administered by the Department of Curriculum and Teaching. Professor Whitton, *Chairperson*

Professor Fromberg; Associate Professors Cloud, Kaufman, Koch, Mileta, Savage, Semel; Assistant Professors Elijah, Payne, Toher; Special Assistant Professors Cooper, Davey.

ASSOCIATE IN APPLIED SCIENCE: SPECIALIZATION IN ELEMENTARY EDUCATION

This program is designed for candidates who are actively engaged in an auxiliary role in the elementary school. The purpose of the program is to encourage the acquisition of skills and to broaden backgrounds including a career-ladder component. The courses will be given during evenings and summer sessions and may be taken on a part-time basis.

A student may be certified by the State Education Department as a teacher assistant on the completion of the first level upon application from the school district and recommendation by the school superintendent. The degree may be attained at the completion of the second level.

Applications for admission should be made to the Chairperson of the Department. Notification of acceptance will be made by August 1.

ADMISSION REQUIREMENTS

For acceptance into the program, the following are required:

1. Possession of a high school diploma or General Equivalency Diploma.
2. Be currently active in an auxiliary role in an elementary school.
3. Be recommended by the chief school officer of the district where applicant is active as having the ability and interest to successfully undertake the associate's degree program.
4. Students with no previous college experience are required to take an advisement test for admissions screening.
5. Meet all other general University admission requirements.

PROGRAM REQUIREMENTS

Candidates for the degree of Associate in Applied Science must fulfill the following requirements:

1. The successful completion of at least 60 semester hours and a cumulative grade-point average of 2.75 in work completed at Hofstra.
2. At least 40 semester hours must be in liberal arts.
3. The last 30 semester hours must ordinarily be completed in residence at Hofstra.
4. The following general and major requirements:

FIRST LEVEL	Sem. Hrs.
ENGL 1-2 or placement examination*	0-6
Humanities (drama, English, fine arts, music)	6
Social science (anthropology, economics, geography, history, political science, social science, psychology, sociology)	6
Speech	3

Electives 0-6

Education: modular units based on individual needs selected from the following: 10

ELED 41. *Basic Concepts in Arithmetic & Related Teaching Practices*, 2 s.h.

104A. *Educational Computing Issues: Trends & Practice*, 1 s.h.

111. *Children's Movement & Rhythmic Activities for the Classroom Teacher*, 1 s.h.

122. *Art in the Elementary School*, 1 s.h.

180-189, A-Z. *Workshops*, 1-3 s.h. each

Supervised Orientation to Teaching, 2 s.h.

Models of Teaching, 2 or 3 s.h.

Individualization Techniques for Teaching, 2 or 3 s.h.

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SECOND LEVEL

Natural science and/or mathematics (astronomy, biology, chemistry, geology, mathematics, natural science, physics) 6-8

Liberal arts electives (foreign language, English, social science, foundations of education) 13

Education: 12

ELED 125. *Child Development in the School Setting, Home & Community*, 6 s.h.

127. *Integrated Teaching of Reading, Writing, & Children's Literature*, 6 s.h.

31-33

UNDERGRADUATE PREPARATION FOR ELEMENTARY TEACHING

The undergraduate elementary education program leads to certification in the elementary schools of New York State (PreK-6). Students combine major study in a liberal arts or sciences area with major study in elementary education. The program is designed to include on-campus preparation with continuous field placement in a variety of school settings and grade levels culminating in a student teaching experience.

B.A. SPECIALIZATION IN ELEMENTARY EDUCATION AND A LIBERAL ARTS MAJOR: candidates for graduation with a dual major must fulfill the following requirements:

1. The successful completion of *at least* 129 semester hours with a cumulative grade-point average of 2.75. MS 1C, 1E, 2C, 2E and associated leadership laboratories may not be counted toward this total semester hour requirement. Evening students do not register for these courses.
2. *At least* 93 semester hours in liberal arts courses. FDED 111 and 127 may be counted toward this requirement. ANTH 131 is strongly recommended. One course each in art, mathematics and philosophy is required of all elementary education majors.
3. The completion of all the admissions requirements in the School of Education prior to registration for professional courses in elementary and early childhood education.
4. A satisfactory written language evaluation prior to admission to the program.
5. Satisfactory completion of a college-level mathematics course prior to ELED 128.
6. Satisfactory completion of a college-level laboratory science course prior to ELED 129.
7. Satisfactory completion of a departmental writing examination or departmentally prescribed equivalent prior to ELED 127.
8. The completion of the last 30 semester hours and at least 18 in elementary and early childhood education, including

*See University Degree Requirements, page 66. The English requirement for the associate's degree is the same as for the baccalaureate degree.

- student teaching, in residence at Hofstra. The 18 semester hours need not be included within the last 30 hours. To be recommended for certification, a student must have satisfied the competencies required in the program.
9. The maintenance of a grade-point average of 2.75 in liberal arts courses and in all courses in the School of Education after admission with no D's or outstanding INC's. Acceptance into student teaching is contingent upon the completion of at least 15 semester hours of course work in elementary education at Hofstra with an overall grade-point average of 2.75 or better with no D's or outstanding INC's. Students receiving a D or who have not removed an INC within the three-week limitation in an elementary education course will be automatically dropped from the program.
 10. And the following requirements:
 - a) The Department of Curriculum and Teaching strongly recommends an emphasis on course work dealing with multicultural issues and the social contexts of education. The Department recommends that prospective elementary education students
 1. satisfy the Humanities Core requirement by completion of one of the following: AH 74, CLL 39, ENGL 40 or JW ST 10, ENGL 51, 52;
 2. satisfy the Creative Participation Core requirement by completion of one of the following: ENGL 133, FA 8 or SPCM 1;
 3. 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;
 4. satisfy the Mathematics/Computer Science Core requirement by completing one of the mathematics courses listed, see page 85;
 5. satisfy the Behavioral School Science Core requirement by completing one of the following: ANTH 3, HIST 72C or 162C; PHI 161, PSC 1 or SOC 4;
 6. satisfy the History and Philosophy Core requirement by completing one of the following: HIST 11, 12, 13, 14C; PHI 14, 20;
 7. satisfy the Cross-Cultural Core requirement by completing one course from the Cross-Cultural category, see page 85.
 - b) Liberal arts major
Courses in the major field of specialization in the liberal arts as necessary to complete the departmental major: 21 or more s.h.
 - c) Elementary education professional sequence: ELED 41 (may be exempted by passing the departmental mathematics proficiency examination), ELED 104A, 111, 121, 122, 123, 125, 126, 127, 128, 129, FDED 111 or 127 (see Item 2): 39-41 s.h.
 11. The fulfillment of any additional requirements as listed under the department of specialization in the liberal arts with at least a 2.75 grade-point average in major.
 12. The New York State Teacher Certification Examinations are required for provisional and permanent certifications.

Before entering student teaching, students are required to complete the liberal arts component of the New York State Teacher Certification Examinations.

NOTE: any requests for substitutions in the B.A. program must be in writing on the proper petition form. Permission from the department is required if the substitution falls outside the liberal arts major field.

BILINGUAL EDUCATION CONCENTRATION: students pursuing a B.A. degree program in elementary education (PreK-6) and a liberal arts major may also fulfill the requirements for a concentration in bilingual education.

PROGRAM REQUIREMENTS

1. Completion of the above requirements 1 through 12.
2. Bilingual concentration: CT 165, FDED 114, SED 153; Field experience: field experiences with dual placements both in methods courses and placement for student teaching will be in appropriate bilingual settings as well as in regular classrooms.
3. Required: ANTH 105, SPCM 11;
one course chosen from:
ENGL 102, 103; LING 151, 152; SPCH 102;
two courses chosen from:
SPAN 122, 123, 124, 125, 126; HIST 142; PSC 130. (Credit for courses listed in 3 above may be included in the general 93 hours in liberal arts requirement.)
4. Competence in two languages is required as demonstrated by passing language proficiency examinations in English and in a second language.

See complete B.A. requirements, page 82.

GRADUATE PREPARATION FOR ELEMENTARY TEACHING

GENERAL INFORMATION

Programs in elementary and early childhood education at the master's level are designed to serve qualified graduate students who seek certification as teachers in the elementary schools of New York State or advanced work in curriculum and instruction, having obtained certification as classroom teachers.

Two master's degree programs in elementary education—the Master of Science in Education for the noncertified person and the Master of Arts for the certified—have been designed to serve these separate purposes. In subsequent paragraphs the standard requirements and options in the two degree programs are outlined. Substitutions will be permitted *with advisement* where, in light of the student's background and purposes, other courses are seen to be more appropriate.

Consideration for admission to a master's program requires a baccalaureate degree from an accredited college or university with at least 60 semester hours in liberal arts course work and a minimum of 21 semester hours in a concentration in humanities, natural science or social science. Admission is based on a comprehensive review of multiple criteria, including the following:

- A completed application to the master's program.
 - A minimum of 2.75 undergraduate grade point average in each of two categories:
 - 1) overall course work;
 - 2) liberal arts course work.
 - A written personal statement of professional intent and rationale.
 - Two letters of reference that address the applicant's potential to succeed in the teaching profession and in graduate course work.
 - An interview (a requirement in some programs).
- The department understands that any single criterion may not reliably predict a candidate's potential for success in a graduate program. Consequently, candidates are welcome to apply if they do not meet one of the criteria but feel that other aspects of their experience may compensate.

Applications for admission to graduate programs in elementary and early childhood education are made to the Graduate Admissions Office in the Admissions Center. Students who have not met the full admission requirements may be advised to complete prerequisite courses under a planned program before becoming eligible for full acceptance. Scores on the Graduate

†Major fields not acceptable: dance, fine arts, music, physical education, health, business education, accounting, marketing, business administration, industrial relations, theology, home economics, industrial arts, library.

Record Examination will be used as an ancillary means of evaluation in some cases.

PREREQUISITES FOR NONCERTIFIED GRADUATE STUDENTS

Admission of noncertified graduate students to the Master of Science in Education program is contingent upon the completion of a baccalaureate degree from an accredited college or university.

PREREQUISITES FOR CERTIFIED GRADUATE STUDENTS

Admission of permanently or provisionally certified graduate students to the Master of Arts program is contingent upon the following:

1. a baccalaureate degree from an accredited college or university;
2. evidence of certification in New York State (or equivalent status in terms of professional preparation and experience).

NOTE: students who are not provisionally certified are eligible to become candidates for the M.S. in Education (Elementary Education) degree. Provisionally or permanently certified graduate students and others with equivalent status will enroll in the M.A. program.

MASTER OF SCIENCE IN EDUCATION

The master's program in elementary education is offered by the Department of Curriculum and Teaching. It is designed to prepare qualified graduate students as teachers in the area of elementary education. The program combines courses in the key areas of the elementary curriculum with work in the foundations of education, human development and the liberal arts. All students in the program are engaged in observation and field work in a variety of elementary school settings throughout the area.

This master's program leads to certification (prekindergarten through sixth grade) by the State Education Department upon recommendation by the School of Education.

Graduate students who enter upon a program of studies on a *nonmatriculated* basis are limited to a maximum of 12 semester hours of course work. Matriculated students must complete 24 hours in residence at the Hofstra campus.

Program Requirements

	<i>Sem. Hrs.</i>
1. Liberal Arts/Education 200-level or higher	3
2. Education	
a) Foundations of Education—200-level course	3
b) Two of the following:	6
ELED 213, 214. <i>Child Development & the Elementary School Program</i> , 3 s.h. each	
RES 240. <i>Measurement and Evaluation in Education</i> , 3 s.h.	
c) ELED 202. <i>Developmental Reading</i> , 3 s.h.	
*205. <i>Language in the Curriculum</i> , 3 s.h.	6
d) ELED 209. <i>Mathematics in the Curriculum</i> , 3 s.h.	
210. <i>Science & Technology in the Curriculum</i> , 3 s.h.	6
e) One of the following:	3
ELED 206. <i>Social Studies in the Curriculum</i> , 3 s.h.	
227. <i>Elementary School Curriculum</i> , 3 s.h.	
f) One of the following:	1
ELED 211. <i>Children's Movement & Rhythmic Activities in the Curriculum</i> , 1 s.h.	
212. <i>Art in the Curriculum</i> , 1 s.h.	

g) Student Teaching	9
ELED 221. <i>Student Teaching</i> , 6 s.h.	
or	
222. <i>Supervised Teaching</i> , 6 s.h.	
223. <i>Analysis of Teaching Behavior</i> , 3 s.h.	

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*ELED 275 may be taken in substitution for ELED 205.

3. To be recommended for certification, a student must have satisfied the competencies required in the program.
4. Comprehensive examination or departmentally authorized equivalent (no degree credit), see page 80.
5. The New York State Teacher Certification Examinations are required for provisional and permanent certifications.

Before completion of first twelve credits of the Master's Program, students are required to complete the liberal arts component of the New York State Teacher Certification Examinations.

NOTE: Student teaching will not be waived.

See complete graduate information, page 73.

**MASTER OF SCIENCE IN EDUCATION:
SPECIAL PROGRAM IN EARLY CHILDHOOD
EDUCATION**

This specialization is offered by the Department of Curriculum and Teaching as an *alternate track* within the elementary education master's program. The program combines courses in the key areas of the elementary curriculum with work in the foundations of education, human development and the liberal arts. All students in the program engage in observation and field work in a variety of settings throughout the area.

This program leads to certification (prekindergarten through sixth grade) by the State Education Department upon recommendation by the School of Education. Students seeking this specialization are required to matriculate in the Master of Science in Education degree program

For admission, degree and certification criteria, see requirements for the Master of Science in Education above.

Professor Fromberg, *Coordinator*

PROGRAM REQUIREMENTS

	<i>Sem. Hrs.</i>
1. Liberal Arts Elective 200-level or higher	3
2. Education	
a) Foundations of Education—200-level elective	3
b) Child Development	6
ELED 243. <i>Advanced Child Development for Teachers</i> , 3 s.h.	
270. <i>Techniques for Study of & Research with Young Children</i> , 3 s.h.	
c) Reading	6
ELED 202. <i>Developmental Reading</i> , 3 s.h.	
275. <i>Literacy in Early Childhood Education</i> , 3 s.h.	
d) Curriculum core	9
ELED 271. <i>Early Childhood Curriculum</i> , 3 s.h.	
272. <i>Curriculum Innovations in Early Childhood Programs</i> , 3 s.h.	
210. <i>Science & Technology in the Curriculum</i> , 3 s.h.	

*See University Degree Requirements, page 66. The English requirement for the associate's degree is the same as for the baccalaureate degree.

e)	Curriculum electives, one of the following	1
	ELED 211. <i>Children's Movements & Rhythmic Activities in the Curriculum</i> , 1 s.h.	
	212. <i>Art in the Curriculum</i> , 1 s.h.	
f)	Student Teaching	9
	ELED 221. <i>Student Teaching</i> , 6 s.h. or	
	222. <i>Supervised Teaching</i> , 6 s.h.	
	223. <i>Analysis of Teaching Behavior</i> , 3 s.h.	
		<hr/>
		37

See complete graduate information, page 73.

**MASTER OF SCIENCE IN EDUCATION:
BILINGUAL ELEMENTARY EDUCATION**

This program offers a balanced, comprehensive and integrated view of bilingual/biculturalism with emphasis on practical classroom applications for meeting the needs of culturally and linguistically diverse students. The program is interdisciplinary in nature and is designed to prepare educators for professional service in bilingual instructional settings.

Associate Professor Cloud, *Coordinator*

ADMISSION REQUIREMENTS

1. Provisional certification in elementary education.
2. Satisfy general University admission requirements described on page 66.
3. Demonstration of proficiency in English and the other language on an examination satisfactory to the department and consistent with New York State certification guidelines. Students who fail to achieve a satisfactory score on the language proficiency examination are retested after remediation and are required to achieve a satisfactory score prior to completion of the degree.
4. Interview with both the language department and Curriculum and Teaching Department.

DEGREE REQUIREMENTS

1. Successful completion of at least 36 semester hours.
2. Satisfactory evaluation by the supervisor and/or cooperating administrator of practicum or internship in a bilingual setting.
3. Completion of a special project or comprehensive examination.

I. PROGRAM REQUIREMENTS—Spanish Language

A.	Core courses	<i>Sem. Hrs.</i>
	ELED 225. <i>Teaching English as a Second Language</i> , 3 s.h.	21 or 24
	246. <i>Methods & Materials for Bilingual Teaching of Reading in Bicultural Setting</i> , 3 s.h.	
	247. <i>Social Studies & Communication Arts for Bilingual & Bicultural Children</i> , 3 s.h.	
	248. <i>Methods & Materials for Bilingual Teaching of Mathematics & Science</i> , 3 s.h.	
	249. <i>Practicum: Teachers of Bilingual Children</i> , 3 s.h. or	
CT	269. <i>Internship: Teachers of Non-English Speaking Students</i> , 6 s.h.	
RES	241. <i>Testing & Evaluation of Bilingual Students</i> , 3 s.h.	
LING	210. <i>Second Language Acquisition</i> , 3 s.h.	

B.	Required courses	12
	SPAN 212. <i>Contrastive Bilingualism</i> , 3 s.h.	
	213. <i>Development of Social & Psychological Bilingual Trends in the United States</i> , 3 s.h. or	
	201. <i>Advanced Structure of Present Day Spanish</i> , 3 s.h.	
	214. <i>Bilingualism in Perspective</i> , 3 s.h.	
CT	260. <i>Foundations, Theory & Practice of Bilingual, Bicultural Education</i> , 3 s.h.	
C.	Elective, one course selected with advisement	3
One of the following is recommended:		
	FDED 248. <i>Multicultural Education in the Metropolitan Area</i> , 3 s.h.	
	ANTH 218. <i>People & Cultures of Latin America</i> , 3 s.h.	
	CT 266. <i>The Learner in the School</i> , 3 s.h.	
	SPAN 213. <i>Development of Social & Psychological Bilingual Trends in the United States</i> , 3 s.h. (if not taken as a required course)	
	206. <i>Studies in Cultures of Spanish America</i> , 3 s.h.	

II. PROGRAM REQUIREMENTS—Other Languages

	<i>Sem. Hrs.</i>	
A.	Core courses selected from IA listing above	21 or 24
B.	Required courses, under advisement	12
C.	Elective, under advisement	3

See complete graduate information, page 77.

**MASTER OF ARTS:
ELEMENTARY EDUCATION**

The program of studies in elementary education leading to the Master of Arts is designed to provide advanced study in elementary school curriculum and instruction for those holding certification as teachers in the elementary schools, and others of comparable educational preparation and experience (e.g., teaching in nonpublic schools, in the Peace Corps, etc.). Graduate students who enter upon a program of studies on a nonmatriculated basis prior to making application for acceptance to the Master of Arts degree program are limited to a maximum of 12 semester hours of course work.

PROGRAM REQUIREMENTS

	<i>Sem. Hrs.</i>	
1.	Education	
	a) Foundations of Education—two courses on the 200-level	6
	b) ELED 234 and 235M.	3
	c) Teaching in the Content Areas: ELED 225, 228, 230, 231, 232, 233, 260, 275, 277, 278, 3 s.h. each	3-9
	d) Curriculum Inquiry: ELED 207, 236, 240, 241, 242, 330; CT 200, 250, 251, 252 3 s.h. each	3-9
	e) ELED 301 and 302 (<i>Thesis</i>), 3 s.h. each, or three additional courses selected from (c) and/or (d) above, with other courses within the School of Education and Allied Human Services with advisement.	6 or 9
2.	Liberal Arts	
	a) a minimum of 6 s.h. on the graduate level (200-level or higher)	6
	30 s.h. with thesis	
	33 s.h. without thesis	
		<hr/>
		30 or 33
3.	a) To be recommended for certification, a student must have satisfied the competencies required in the program.	
	b) New York State certification regulations require six semester hours in the teaching of reading. Students should consult an adviser.	

4. Comprehensive examination or departmentally authorized equivalent (no degree credit), see page 80.

NOTE: modifications of this program may be authorized by the department chairperson upon the recommendation of the faculty adviser.

See complete graduate information, page 73.

MASTER OF ARTS IN ELEMENTARY EDUCATION: SPECIAL PROGRAM IN MATHEMATICS, SCIENCE, AND TECHNOLOGY

The M.A. Program in Elementary Education with specialization in Mathematics, Science, and Technology, is designed for experienced elementary school teachers who seek the skills, knowledge, and dispositions to integrate the teaching of these areas. Integration of these areas occurs within a broader understanding of the way in which society both reflects and shapes curriculum and pedagogy in schools.

The program is designed to provide advanced study in the elementary curriculum for those currently holding New York State teacher certification. Graduate students who enter the program on a nonmatriculated basis prior to making application for acceptance to the program are limited to a maximum of 12 semester hours of course work.

Associate Professor Koch, *Coordinator*

PROGRAM REQUIREMENTS

	<i>Sem. Hrs.</i>
1. Education Core	6
ELED 234. <i>Curriculum Design & Teaching: Contexts & Perspectives, Part I</i> , 3 s.h.	
235M. <i>Curriculum Design & Teaching: Contexts & Perspectives, Part II—Mathematics, Science & Technology</i> , 3 s.h.	
2. Education Specialization	19
ELED 231. <i>Curriculum & Instruction in Science</i> , 3 s.h.	
232. <i>Curriculum & Instruction in Mathematics</i> , 3 s.h.	
CT 200. <i>Introduction to Computer Technology in Education</i> , 3 s.h.	
ELED 239. <i>Technology Education in Elementary School</i> , 3 s.h.	
250. <i>Mathematics, Science, & Technology Integration in the Elementary School</i> , 6 s.h.	
253. <i>MST Field Placement</i> , 1 s.h.	
3. Liberal Arts	6
With advisement, the following are recommended:	
MATH 287. <i>Problem Solving Through Computers and Calculators</i> , 3 s.h.	
NSC 203, 204. <i>Science for Elementary School Teachers</i> , 3 s.h. each	
TPP 201. <i>Science, Technology and Society</i> , 3 s.h.	
NG 201. <i>Astronomy, Space Science & Aerospace Workshop</i> , 3 s.h. (New College)	
4. School of Education Elective	<u>3</u>
	34
5. a) In order to be recommended for certification, a student must have successfully completed the above course requirements.	
b) Regulations for New York State teacher certification in grades PreK-6 require six semester hours in the teaching of reading. Students should consult an adviser in the Reading Department if they need to take reading courses.	
6. Successful completion and implementation of a capstone MST curriculum project.	

NOTE: modifications to this program may be authorized by the department chairperson upon the recommendation of the faculty adviser.

See complete graduate information, page 73.

MASTER OF ARTS: ANNOTATION IN EARLY CHILDHOOD EDUCATION*

The Master of Arts Annotation in Early Childhood Education program is part of the Department of Curriculum and Teaching. It is designed for teachers who wish to specialize in the area of early childhood education. Students include those who teach in the public and private sector with children before the age of eight years, as well as others who are provisionally certified to teach (PreK-6) by the New York State Education Department but are not presently teaching. *This program leads to the New York State Education Department's "Annotation in Early Childhood Education" upon recommendation by the School of Education and Allied Human Services.

Professor Fromberg, *Coordinator*

ADMISSION REQUIREMENTS

1. Admission to the M.A. program in Elementary Education.
2. Prior or present teaching experience with young children (PreK-3). In special cases, the ability to work daily as a researcher with young children in a school setting will be acceptable when prior experience is offered.
3. Special application and interview with program director.

PROGRAM REQUIREMENTS

	<i>Sem. Hrs.</i>
1. ELED 243. <i>Advanced Child Development for Teachers</i>	3
2. Courses in curriculum and instruction, theory and modern trends on the 200-level, with advisement of the early childhood adviser.	3-6
ELED 233, Early Childhood section, particularly recommended.	
3. Liberal arts, in courses numbered 200 or above. (Individually planned to help deepen concerns and coordinate with elementary education offerings, as in 2 above.)	3-6
4. Foundations of education, in courses numbered 200 or above. (Individually planned to help students deepen specialized concerns and coordinate with offerings in 2 and 3 above.)	3-6
5. ELED 270. <i>Techniques for Study of & Research with Young Children</i>	3
271. <i>Early Childhood Curriculum</i>	3
272. <i>Curriculum Innovations in Early Childhood Programs</i>	3
273. <i>Consultantship for Continuing Early Childhood Professional In-Service Development</i>	3
274. <i>Curriculum Supervision of Early Childhood Centers</i>	3
310. <i>Issues in Infant, Toddler, Preschool, Parent & Family Involvement Programs</i>	3
6. ELED 301 & 302. <i>Thesis</i> , optional, with advisement	<u>6</u>
	minimum 30 or 33
7. To be recommended for certification, a student must have satisfied the competencies required in the program.	
8. Comprehensive examination or departmentally authorized equivalent (no degree credit), see page 80.	

See complete graduate information, page 73.

ADVANCED CERTIFICATE

MIDDLE SCHOOL EXTENSION INTO GRADES 7-9

Persons holding the New York State Certificate of Qualification PreK-6 or Certification can earn a Certificate for Middle School Extension into Grades 7-9, by completing CT 248 (6 s.h.) and providing evidence of having completed specialization requirements at the undergraduate or graduate level in one certification area listed below. This extension is registered with the New York State Education Department.

ADMISSION REQUIREMENTS

1. New York State PreK-6 Certificate of Qualification or Certification;
2. Satisfactory levels of academic achievement;
3. Application and admission to the program.

Required

CT 248. *Integrated Middle Extension into Grades 7-9*
Specialization requirements in one of the following certification areas:

For Extension Certificate in English: English (undergraduate or graduate) beyond freshman composition, with advisement.

For Extension Certificate in a Language other than English:

Language other than English (undergraduate or graduate course work beyond intermediate level).

For Extension Certificate in Mathematics:
Mathematics (undergraduate or graduate including 12 semester hours of nonintroductory work as follows):

Differential & Integrated Calculus, 6-8 s.h.;
Three electives from among: Probability & Statistics; Finite/Discrete Mathematics, Geometry/Graph Theory, Symbolic Logic, Mathematical Modeling, History of Mathematics, with advisement.

For Extension Certificate in Social Studies:
Social Studies (undergraduate or graduate course work) Nonwestern History, 6 s.h.; United States History, 6 s.h.; European History/Western Civilization, 6 s.h.; economics 3 s.h., and sociology 3 s.h., with advisement.

For Extension Certificate in General Science:
Sciences (undergraduate or graduate course work) biology, chemistry, geology and physics, with advisement.

Sem. Hrs.

6-36

6

24

18

24

24

30

EDUCATION HONOR SOCIETIES, see pages 69 and 77.

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 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 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 the role of programming languages. Hands-on experience is provided with a variety of educational software.

111. *Children's Movement and Rhythmic Activities for the Classroom Teacher* 1 s.h.

Fall, January, Spring
Development of rhythmic activities, aesthetic and creative abilities is studied. Consideration given to multicultural content and the special learning needs of diverse student 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, 111, 122, 125, 126, 127, 128, 129. Pass/D+/D/Fail grade only.

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, puppetry, 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*.)

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.

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.

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.

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.

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.

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.

202. *Developmental Reading* 3 s.h.
Fall, Spring, Summer

Current reading programs that have been developed through an analysis of language and the intellectual development of children (Pre-Kindergarten-3). Distinctions between the nature of writing and oral language. Classroom observations are required. Prerequisite: ELED 213 or 214.

205. *Language in the Curriculum* 3 s.h.
Fall, Spring, Summer

A study of the contributions to the curriculum of the arts and sciences which examine language. The literature on creativity is considered in designing instructional programs leading to the effective use of language in a wide range of activities and situations (Grade 4 to 6). Classroom observations are required. Prerequisite: ELED 213 or 214.

206. *Social Studies in the Curriculum* 3 s.h.
Spring

An in-depth study of social studies curriculum which considers the contributions of the social sciences and the humanities. Consideration of instructional strategies, materials and development of creative opportunities which meet the needs of diverse populations. Classroom observations are required. Prerequisite: ELED 213 or 214.

207. *Dynamics of Curricular Change* 3 s.h.
Spring

The implementation of curricular change through adaptation in subject matter, methodology, materials and facilities. The planning of change, models of the change process, generalizations developed in the research traditions in innovation, the diffusion process in education, status of adaptation and rejection of education innovations, organizing and implementing curricular change. Same as SED 207.

208. *Science and Mathematics* 3 s.h.
Fall

An examination of the objectives, content and techniques of teaching appropriate to contemporary developments in science and mathematics. A theory of instruction based on the intellectual development of children is used as a basis for curriculum design. Classroom observations are required. Prerequisite: ELED 213 or 214.

209. *Mathematics in the Curriculum* 3 s.h.
Fall, Spring, Summer

An evaluation of the objectives, content and techniques of teaching, appropriate to contemporary developments in mathematics. A theory of instruction based on the intellectual development of children is used as a basis for curriculum design. Classroom observations are required. Prerequisite: ELED 213 or 214.

210. *Science and Technology in the Curriculum* 3 s.h.
Fall, Spring, Summer
Examination of the objectives, content and techniques of teaching, appropriate to contemporary developments in science and technology. A theory of instruction based on the intellectual development of children is used as a basis for curriculum design. Classroom observations are required. Prerequisite: ELED 213 or 214. There is a material fee of \$10.
211. *Children's Movement and Rhythmic Activities in the Curriculum* 1 s.h.
Fall, January, Spring, Summer
Participants acquire methods of instruction, activities, and materials for use in children's movement and rhythmic activities. Consideration is given to multicultural content and the special learning needs of diverse student populations.
212. *Art in the Curriculum* 1 s.h.
Fall, January, Spring, Summer
Explore modes of integrating the creative arts into the elementary school curriculum. Study art forms that engage students on a multitude of levels, thereby clarifying and enhancing required academic curriculum. Subjects covered include perception, developmental stages in art, multiple intelligence theory, adaptation for included children with handicapping conditions, curriculum mapping and art history. Art forms explored include painting, sculpture, collage, and poetry. There is a material fee of \$10.
- 213, 214. *Child Development and the Elementary School Program* 3 s.h. each
Fall, Spring, Summer
An advanced course in the study and evaluation of modern school practices coupled with the study of current cross-cultural research in child development. 213 emphasizes ego development and the socialization process; 214 emphasizes perceptual and intellectual development. Issues of mainstreaming and children with handicapping conditions are addressed. Classroom observations are required.
219. *Supervised Teaching with Normal and Handicapped Children* 9 s.h.
Fall, Spring
(Physically Handicapped, Neurologically Impaired/Learning Disabled, Emotionally Disturbed and/or Mentally Retarded.) Must be taken concurrently with ELED 223. Same as SPED 219A-219B.
221. *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 intermediate level (4-6). Weekly seminars are provided. Admission by application and interview. Applications obtainable at the Office of Field Placement, to be returned by October 1 for the spring semester and by March 1 for the fall semester. Must be taken concurrently with ELED 223. Prerequisite: 18 s.h. in education. Pass/Fail grade only.
222. *Supervised Teaching* 6 s.h.
Fall, Spring
Close clinical supervision of M.S. in Ed. students currently teaching in an elementary school on a full-time basis. Must be taken concurrently with ELED 223. Admission by application and interview. Applications obtainable at the Office of Field Placement, to be returned by October 1 for the spring semester and by March 1 for the fall semester. Prerequisite: 18 s.h. in education. Pass/Fail grade only.
223. *Analysis of Teaching Behavior* 3 s.h.
Fall, Spring
Research on classroom interaction systems is studied. Skill in the objective study of teaching behavior is developed. An objective study of teaching behavior, integrating research findings, is required. Must be taken concurrently with ELED 219, 221 or 222.
225. *Teaching English as a Second Language* 3 s.h.
Fall
An intensive study of the linguistic development of bilingual children. The problems of psychological, cognitive and psycholinguistic developmental stages as they affect the acquisition of a second language. Specific methods and materials are developed, including materials and techniques for teaching English to speakers of other languages through mathematics, science, and social studies.
227. *Elementary School Curriculum* 3 s.h.
Fall, Spring, Summer
Principles, trends, techniques in curriculum construction and revision. A central purpose is to assist each student to integrate and synthesize understanding of elementary education through a comprehensive approach to curriculum study.
228. *Curriculum and Instruction in Communication* 3 s.h.
Fall, Spring
For experienced teachers offering advanced study of the curriculum and instruction in language arts including reading, speaking, writing, literature, skills and appreciation (PreK-6).
230. *Curriculum and Instruction in Social Studies* 3 s.h.
Fall
For experienced teachers offering advanced study and stressing evaluation of research, school programs and curriculum trends.
231. *Curriculum and Instruction in Science* 3 s.h.
Fall, Spring
For experienced teachers that addresses the multiple methods of doing science with children. Teachers are encouraged to explore their own scientific selves, science in the media, and contemporary attitudes towards science and technology in society. The construction of science curriculum is embedded in a science-technology-society framework where teachers examine locally relevant science issues for curriculum construction.
232. *Curriculum and Instruction in Mathematics* 3 s.h.
Fall, Spring
For experienced teachers offering advanced study of mathematics curriculum. Stresses the design and implementation of instructional methodologies that actively engage the learner in elementary/middle grade mathematics. Mathematics curricula are examined with a view toward providing all students opportunities for becoming mathematically literate in a rapidly changing, culturally diverse, technological society.
233. *Curriculum and Instruction in Creative Arts* 3 s.h.
Spring
For experienced teachers, this course presents methods of integrating the creative arts into the elementary school curriculum. Explores art forms that engage the student on many levels as well as clarifies and enhances required academic curriculum. Subjects covered include perceptual stages of development, creativity, multiple intelligence theory, adaptation for included children with handicapping conditions, interdisciplinary teaching, art history as a means to understand culture, aesthetics and the museum as educator. Practice painting, puppetry, drama, collage, sculpture and poetry. Museum trips and research required. There is a material fee of \$10.
234. *Curriculum Design and Teaching: Contexts and Perspectives, Part I* 3 s.h.
Fall
This course addresses the child in relation to the curriculum by examining the influences of family, community, and society on the world of the learner. Students engage in self-reflection while exploring diverse perspectives on teaching and learning. Critical literacy about curriculum and teaching is developed through the collaborative study of diverse teaching/learning environments.

- 235M. *Curriculum Design and Teaching: Contexts and Perspectives, Part II—Mathematics, Science, and Technology* 3 s.h.
Spring
This course examines mathematics, science, and technology (MST) curricula in the elementary school. It considers the culture of the classroom by exploring social processes and learning; the politics of curriculum construction; and justice and social change in classroom settings.
236. *Modern Trends* 3 s.h.
Periodically
Advanced course for experienced teachers to investigate in-depth ideas and practices. Students and instructors cooperatively identify a number of specific areas of investigation, which become the focus of the course.
239. *Technology Education in Elementary School* 3 s.h.
Spring
A course for experienced teachers which stresses the skills, knowledge, and attitudes essential to the development of technology education for the elementary grades. The human-made world is considered through an activity-based study of past, present, and future technological systems. Factors underlying the design process, supporting principles of mathematics and science, and considerations of utility and aesthetics are examined. Central to the course is the creation of a design portfolio, a form of authentic assessment.
240. *Perspectives in Curriculum* 3 s.h.
Periodically
An examination of the major curricular issues and movements in the American elementary school from 1890 to the present. Recent innovations are studied in historical perspective. Prerequisite: provisional or permanent certification (PreK-6) or equivalent.
241. *Educational Programs for Young Children* 3 s.h.
Periodically
Contemporary practices, experimentation, innovations, proposals and issues (nursery and early school). Appropriate attention is given to the research literature. Prerequisite: provisional or permanent certification (PreK-6) or equivalent.
242. *Instructional Theory* 3 s.h.
Periodically
An analysis of the effects of varieties of teacher behavior on child behavior and learning in the classroom setting. Attention will be given to the literature on classroom transactions as well as case studies in classrooms. Prerequisite: provisional or permanent certification (PreK-6) or equivalent.
243. *Advanced Child Development for Teachers* 3 s.h.
Fall, Spring
An analysis of recent cross-cultural research and theory in child growth and development. Emphasis on implications for curriculum design and instructional practice drawn from studies in the affective and cognitive domains. Issues of mainstreaming and the child with handicapping conditions are explored.
244. *Models of Teaching* 3 s.h.
Periodically
Theory and practice of five models of teaching are presented: concept attainment, concept formation, inquiry training, role playing and synectics. These models, which are useful new ways of teaching, can be integrated into one's teaching repertory at all levels and in all subject areas.
245. *Workshop: Community Resources* 3 s.h.
Periodically
Identification of and acquaintance with community resources for instructional purposes in the metropolitan and Long Island areas. Registration is limited to students who are able to take field trips.
246. *Methods and Materials for Bilingual Teaching of Reading in Bicultural Setting* 3 s.h.
Once a year
An in-depth study of readiness and beginning reading including the effects of language and experience on reading instruction and the relationship of reading to child development and self-concept. Consideration of teaching strategies and organization in the classroom as well as the selecting and adapting of appropriate materials for classroom use. Methods and materials specifically analyzed, developed and designed to teach reading in Spanish, and in addition, a consideration of the techniques to ease the transition to reading and writing in English.
247. *Social Studies and Communication Arts for Bilingual and Bicultural Children* 3 s.h.
Once a year
An understanding of the regional, social and developmental variations in children's language. Develop curricular materials and activities utilizing learner's cultural background through the social studies curriculum in elementary school. Ways to utilize an interdisciplinary bilingual approach to these two curricular areas are explored.
248. *Methods and Materials for Bilingual Teaching of Mathematics and Science* 3 s.h.
Once a year
Consideration of formation of appropriate objectives with respect to concept development together with suitable techniques and materials for bilingual settings.
249. *Practicum for Teachers of Bilingual Children* 3 s.h.
Once a year
Extended teaching practice with close clinical supervision. Admission by application and interview. Applications obtainable at the Office of Field Placement, to be returned by October 1 for the spring semester and by March 1 for the fall semester. Seminars meet weekly with supervisory personnel from the Curriculum and Teaching Department and public school districts to work intensively with specific student problems. Demonstration classes and observations of innovative programs in bilingual settings in local school districts are arranged. Pass/Fail grade only.
250. *Mathematics, Science, and Technology Integration in the Elementary School* 6 s.h.
Fall
This course involves the creation of integrated mathematics, science, and technology (MST) activity modules suitable for inclusion in the elementary school curriculum. Requires research in the teaching of MST, considerations of political, socio-economic, aesthetic, and ethical issues in MST instruction, and visits to mathematics, science, and technology centers. Culminates in the completion, implementation, and evaluation of a capstone MST action research project. Must be taken concurrently with ELED 253.
- 251, 252. *Special Readings Seminar* 1-3 s.h. each
Fall, Spring, Summer
Investigations and reports on advanced educational topics adapted to the program of the student. Prerequisite: permission of instructor.
253. *MST Field Placement* 1 s.h.
Fall
Students participate in a field consultation model as they implement and evaluate mathematics, science, and technology activity modules in the elementary grades. Transportation to and from assigned placements is the responsibility of the student. Must be taken concurrently with ELED 250. Pass/Fail grade only.

256. *The Newspaper as a Teaching Tool* 3 s.h.
Summer
This course introduces students to the newspaper as an educational tool for children of all grade levels, K-12, and in every subject area. The newspapers on Long Island and the Metropolitan area contribute editors, Newspaper in Education coordinators, and NIE managers as speakers in the workshop. Students tour *Newsday* and see the newspaper in production. The history and background of Newspapers in Education are presented. Students receive a comprehensive overview of NIE and the practical means to implement it in their classrooms. Curriculum materials and teaching strategies relating to the newspaper are employed.
260. *Space Science for the Teacher* 3 s.h.
Periodically
Depth in the background subject matter as well as the necessary mathematics and physical sciences inherent in a successful comprehension of the subject. Demonstration and discussion of techniques for teaching in the area.
270. *Techniques for Study of and Research with Young Children* 3 s.h.
Fall
Research techniques with particular reference to early education. Child development theory and child study and evaluation techniques are explored and used in various settings.
271. *Early Childhood Curriculum* 3 s.h.
Fall
Development of early childhood programs. Explore, contrast, analyze, and develop models and designs for integrated programs. Pass/Fail grade only. Prerequisite: admission to program in Early Childhood Education or permission of instructor.
272. *Curriculum Innovations in Early Childhood Programs* 3 s.h.
Spring
Content-based program and material innovations for young children in school organizations. Research design and evaluation are part of each contract. Pass/Fail grade only.
273. *Consultantship for Continuing Early Childhood Professional In-Service Development* 3 s.h.
Spring
Professional self-study and in-service consultation in curricular innovations. Action research with young children in school settings. Hofstra faculty individually supervise study site with attendant conferring. Minimum 60 hours teaching in a kindergarten/pre-kindergarten setting required. Pass/Fail grade only.
274. *Curriculum Supervision of Early Childhood Centers* 3 s.h.
Every other year
Studying, simulating, and testing curriculum policy-making with faculty, community and family involvement. Issues that relate to public policy and advocacy of early childhood education are also studied. Participants engage in advocacy project development and study.
275. *Literacy in Early Childhood Education* 3 s.h.
Once a year
Deals with early literacy development and instructional practices based upon theory and research. Emphasis on the use of relevant instructional approaches and materials. Participants consider sound awareness, creative language development, early reading and writing, special language learning needs, and thinking-reading-and-writing connections. Participants engage in the study of integrated teaching practices. Prerequisite: one graduate course in the teaching of reading is recommended. Same as READ 275.
276. *Early Childhood Education: Mainstreaming the Young Child with Special Learning Needs* 3 s.h.
Every other year
The study of issues of organization that facilitate the socialization and integration of young children who have a range of learning needs. Materials and methods are reviewed, developed and refined. Same as SPED 276.
277. *Classroom Strategies in Teaching Writing* 3 s.h.
Periodically
Course helps teachers develop instructional strategies and classroom procedures based on current research on the composing process. Emphasis placed on the stages of the writing process, methods of response, the role of the teacher, and includes experiences in writing and in using peer response groups.
278. *Writing and Children's Literature* 3 s.h.
Periodically
Provides an in-depth investigation of literature for children as a literary experience which promotes language and writing development. Emphasis on developing strategies to use experience with various genres and styles to help children become critical readers and writers.
- 280 through 289, A-Z. *Advanced Workshops* 1-3 s.h. each
Fall, Spring, 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.
300. *Departmental Seminar* 3 s.h.
Fall, Spring
Serves an integrative and culminating function with respect to the student's studies and experiences in the School of Education. The student is required to prepare and present a paper or project of "publishable" quality. The paper or project should demonstrate a synthesis of the student's comprehensive knowledge in the fields of child development, curriculum theory and at least one specific curriculum area. Pass/Fail grade only. Prerequisites: matriculation in the department and completion of *all* required course work in professional education.
NOTE: successful completion of ELED 300 may be offered in place of the departmental comprehensive examination. This course may *not* be used to satisfy any part of the basic semester hour requirements for a master's degree in elementary education.
- 301 & 302. *Master's Thesis* 3 s.h. each
Fall, Spring
Supervision and instruction leading to the completion of master's thesis. Binding fee payable upon registration in 302. Admission by permission of adviser. Prerequisite: competence in statistics (through analysis of variance).
- 303 through 309, A-Z. *Post-Master's Workshops* 1-3 s.h. each
Periodically
Intensive workshops for experienced teachers. Not applicable to the Master of Science in Education or Master of Arts degrees.
310. *Issues in Infant, Toddler, Preschool, Parent and Family Involvement Programs* 3 s.h.
Once a year
A study of educational needs, methods, and materials for use with infants, toddlers and preschoolers in group settings including related parent and family involvement programs and alternatives. Particular attention is devoted to sociocultural and linguistic issues. Same as SPED 310.

330. *Techniques of Mentor Teaching* 3 s.h.
Once a year

Prepares experienced teachers to serve as mentor teachers to new teachers, student teachers, teachers, and others needing assistance in developing new skills and content. Study emphasizes coaching and demonstration techniques as well as knowledge concerning adult learning within professional work settings.

Engineering (ENGG)

Associate Professor Rooney, *Chairperson*

Professors Alvarez, Burghardt, Rabbany, Weissman; Associate Professors Agnone, Caputi, Forsberg, Jensen, Kwong, Raship; Assistant Professors Ghorayeb, Hunter, Puerzer; Director of Freshman Engineering Hakola.

TECHNOLOGY AND PUBLIC POLICY courses are listed alphabetically.

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. 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, 181, 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, 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
	<hr/>	<hr/>
	15	15
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
	<hr/>	<hr/>
	17	18
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	3
Technical electives	6	6
	<hr/>	<hr/>
	18	19
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	7	6
	<hr/>	<hr/>
	17	18

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.

*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.

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 1; 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 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, 1, 10	4	3
ENGL 1 or placement examination*	3	-
CHEM 3A, 3B, 4A	4	3
PHYS 11A, 11B	-	5
	<hr/>	<hr/>
	15	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
		17	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 1		3	-
Social science or humanities elective**		3	-
		19	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
		18	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 82.

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		
	<i>1st Sem.</i>	<i>2nd Sem.</i>
MATH 19, 20	4	4
ENGG 1, 9A, 10	4	3

*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.

ENGL 1 or placement examination†	3	-
CHEM 3A, 3B, 4A, 4B	4	4
PHYS 11A, 11B	-	5
	<hr/>	<hr/>
	15	16
SECOND YEAR		
ENGG 25, 181	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/>	<hr/>
	15	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/>	<hr/>
	16	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/>	<hr/>
	16	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.

**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 1	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

†For B.A. requirements, see page 82.
††For literature core requirements, see page 84.

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 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.

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	-
	<hr/> 16	<hr/> 18
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
	<hr/> 18	<hr/> 16
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	-
	<hr/> 16	<hr/> 19

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
	<hr/> 18	<hr/> 17

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 develop a greater in-depth knowledge of a major branch of mechanical engineering (aerospace, solid mechanics, 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 85, 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.

*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.

††With adviser's approval; one technical elective must be a design course.

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
	<hr/> 15	<hr/> 18
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
	<hr/> 17	<hr/> 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
	<hr/> 17	<hr/> 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
	<hr/> 19	<hr/> 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.

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. Prerequisite: high school trigonometry. No liberal arts credit.
 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.
 - 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. Prerequisite or corequisite: MATH 19, ENGG 9A or permission of department. (Formerly *FORTAN 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
- *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. Possible groupings emphasizing specific areas of concentration include four courses from ENGG 116, 138, 140, 145, 146 (aerospace), from ENGG 32A, 36, 130, 179 (controls), from ENGG 116, 119, 136, 145, 174 (thermal/fluids) or from ENGG 119, 129, 131, 132, 134 (solid mechanics). Selection across groupings, with the prior approval of the academic adviser, is permissible.

trusses and frames, friction, virtual work. Prerequisite: PHYS 11A. Prerequisite or corequisite: MATH 29, ENGG 9B or I or permission of instructor.

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, ENGG 25.

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.

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 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 33, ENGG 10 or CSC 15.

47. *Environmental Engineering* 3 s.h.
See course description, page 403.

60. *Water Quality for Environmental Engineers* 3 s.h.
See course description, page 403.

62. *Environmental Unit Operations Laboratory* 1 s.h.
See course description, page 404.

63. *Biochemical Process Dynamics* 3 s.h.
See course description, page 404.

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. MATH 131. 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, re-

- fraction 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.
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.
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 26, 113, 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 404.
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, 28, 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.
133. *Advanced Dynamics* 3 s.h.
Periodically
Two- and three-dimensional rigid body dynamics including momentum and energy methods, generalized coordinates. Lagrange equations, periodic motion. Prerequisites: ENGG 26, MATH 143.
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 404.
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 114.
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 or corequisite: ENGG 114.
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 26, 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 141.

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.

143B. *Electrical 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.

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, ENGG 142 and one of the following: ENGG 153, 154, 155, or 158.

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: ENGG 114, 115. No liberal arts credit. (Formerly *Mechanical Engineering Design: Thermal Systems*.)

143G. *Engineering Design B* 3 s.h.
See course description, page 404.

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*.)

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.) Prerequisite: senior standing or permission of department.

151. *Electrical Engineering I*
Prerequisite: ENGG 176.

156. *Industrial and Systems Engineering and Operations Research I*

157. *Industrial and Systems Engineering and Operations Research II*
Prerequisite or corequisite: ENGG 156.

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. 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. Prerequisites: ENGG 27, 28.

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. (Formerly 166A.)

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. Prerequisites: ENGG 115, 160. No liberal arts credit.

170. *Mechanical Engineering Laboratory II* 1 s.h.
Spring

Experiments, primarily in the areas of heat transfer and vibrations. Prerequisites: ENGG 114, 160. 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 and 111.

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. Prerequisite or corequisite: ENGG 36.

174. *Direct Energy Conversion* 3 s.h.
Once every two years

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 33, 35, 113.

176. *Network Analysis* 3 s.h.
Fall, Spring

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. Prerequisites: ENGG 30, 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. Prerequisites: ENGG 176, MATH 143 (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.
Once every two years

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 130 or 176.

180. *Digital Signal Processing* 3 s.h.
See course description, page 404.

181. *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. Same as BIO 179.

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. *Special Topics in Bioengineering* 3 s.h.
Once every three semesters

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 or permission of instructor. No liberal arts credit.

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 404.

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 404.

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 multi-stage BJT and FET amplifiers. Theory, analysis, and design of electronic feedback amplifiers and oscillators. Use of PSpice for design verification. Prerequisite: ENGG 33. Corequisite: ENGG 176.

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 404.

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.

209. *Wave Propagation and Distributed Systems* 3 s.h.
Once a year

General features common to wave motion, wave propagation, reflection and generation are developed and applied to acoustics, electromagnetics and optics, elastic and hydrodynamic waves. Dispersion, diffraction and coherence are also studied. Applications to systems for energy and information transfer. Prerequisites: PHYS 12A, MATH 144 or equivalent.

212. *Information Systems Analysis* 3 s.h.
Once a year

Transform methods applied to the analysis of linear and nonlinear systems that process information signals. Study of optimum linear systems to minimize noise. Two-dimensional systems for image transmission and processing. Multidimensional transforms for frequency analysis of optical filtering and imaging systems. Prerequisites: ENGG 177 or equivalent; ENGG 209 or 111; ENGG 171 or 185 or MATH 137 or 241.

English (ENGL)

Associate Professor Brand, *Chairperson*

Professors Bryant, Burke, Couser, DiGaetani, Keane, Keener, Klause, Krieg, Lopate, Markus, Nathan, Prigozy, Russell; Associate Professors Alter, Brogger, Fichtelberg, Harshbarger, Janssen, Levine, Lorsch, MacCary, McLaren, Nass, Otis, Rustici, Sargent, Uruburu, Ward, L. Zimmerman, S. Zimmerman; Assistant Professors Baron, Berger, Fizer, Sawhney.

THE JOHN CRANFORD ADAMS CHAIR IN THE HUMANITIES is held by Professor Lopate. See page 424.

THE JOSEPH G. ASTMAN DISTINGUISHED PROFESSORSHIP IN THE HUMANITIES. See page 424.

ENGLISH HONOR SOCIETY, see page 70.

The English department offers a full range of courses in literature, creative writing, expository writing, and publishing.

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 82.

TEACHING OF HIGH SCHOOL ENGLISH, see page 362.

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.

MASTER OF ARTS IN ENGLISH: this program, scheduled in late afternoons and evenings Monday through Thursday, requires the completion of 33 credits as outlined below. It is possible, on a limited basis, to elect a tutorial in a subject not available in regular offerings. Candidates will be expected to complete their studies within five years.

Applicants must present evidence of successful completion of an undergraduate major in English or receive special permission from the director of the program. They must also have an average grade of B or better for undergraduate courses in English or a satisfactory score on the Graduate Record Examination.

Associate Professor S. Zimmerman, *Director*

PROGRAM REQUIREMENTS

	<i>Sem. Hrs.</i>
I. Required courses	9
3 s.h. in Research Methods*	
3 s.h. in Critical Theory*	
3 s.h. in Shakespeare or Milton	
(*Research Methods and Critical Theory ought ideally to be completed during a student's first year in the program.)	
II. Distribution Requirements	9**
6 s.h. (or two courses) in pre-1800 British or American Literature	
3 s.h. (or one course) in pre-1900 British or American Literature	
(**One, and only one, of these distribution requirements may be satisfied with a course in American Literature.)	
III. Electives	15
200-level courses in English and/or American Literature. (Under advisement, certain courses in comparative literature, history or humanities may be accepted. No more than 3 s.h. of courses in Creative Writing may count towards the M.A. in English. Students are encouraged to complete a 3-credit <i>Master's Essay</i> (ENGL 301), which will count in this category.)	

MASTER OF ARTS IN ENGLISH AND CREATIVE WRITING: this program, scheduled in late afternoons and evenings, Monday through Thursday, offers students the opportunity to earn an M.A. through the completion of 33 credits of course work in both English and American literature and creative writing. Candidates will be expected to complete their studies within five years.

Applicants must show a grade of B or better in 15 credits of upper-division English courses in literature. Applicants who do not meet these academic standards may still apply but are asked to submit satisfactory scores on the Graduate Record Examination (GRE), a personal statement, and a recent writing sample demonstrating a clear ability to analyze a literary text. In addition, all applicants must submit a portfolio of approximately 30 pages

of recent creative work to be evaluated by the creative writing faculty.

Program Requirements

33 credits distributed as follows:

- 1) At least 18 credits in 200-level literature courses. At least 6 credits must be in courses that deal in literature written before 1900.
- 2) At least 9 credits of 200-level creative writing workshops or tutorials.
- 3) At least 3 credits earned by the completion, under the guidance of an adviser, of an extended creative writing project.

See complete graduate information, page 73.

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; the Proficiency Examination is given as part of the course. 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. Prerequisite: ENGL 1. May not be taken on a Pass/D+/D/Fail basis.

1A. *English Composition Tutorial* 1 s.h.
See course description, page 404.

2A. *English Composition Tutorial/Workshop* 1 s.h.
Fall, Spring
Ordinarily taken in conjunction with ENGL 2, 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 Writing Proficiency Test requirement. Pass/ D+/D/Fail grade only. (Formerly *English Composition Tutorial*.)

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. (Formerly *Advanced Composition; Expository Writing*.)

5. *Technical Communications* 3 s.h.
See course description, page 404.

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. Open only to students 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.)

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 or permission of the chairperson.

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 or permission of the chairperson.

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 or permission of the chairperson.

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 or permission of the chairperson.

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 or permission of the chairperson.

51. *The American Literary Identity #* 3 s.h.
Fall, Spring

Readings from major American authors; the colonials through 1865. Prerequisite: ENGL 1 or permission of the chairperson. 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 or permission of the chairperson. Credit given for this course or ENGL 144, not both.

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.

#Core course

*Open only to students who have fulfilled the Writing Proficiency Test requirement.

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 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.

#Core course

*Open only to students who have fulfilled the Writing Proficiency Test requirement.

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 404.
- 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 has been called "the American Renaissance." Works by such authors as 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*.)

#Core course

*Open only to students who have fulfilled the Writing Proficiency Test 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.

- 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 404.
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.Y1221;10
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 404.
168. *Caribbean Literature in English** # 3 s.h.
See course description, page 404.
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 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.

#Core course

*Open only to students who have fulfilled the Writing Proficiency Test requirement.

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 405.
- 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, 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. *Course descriptions for 145 and 146 are listed on page 140 under American Studies and may also be counted toward the major.*
- AMERICAN STUDIES COURSES
145. *Readings in American Studies* 3 s.h.
146. *Seminar in American Studies* 3 s.h.
200. *The Analysis of Prose* 3 s.h.
Every other year
Investigation of the way in which written prose conveys meaning, generally, and of the relation between style and meaning, specifically. Consideration of stylistic features, such as diction, syntax, figures of speech and sound patterns; of rhetorical issues, such as speaker, audience, topic and tone; and of various conventions of reading. Emphasis on nonfiction, with consideration of texts from various fields of discourse and from various periods.
201. *Rhetoric* 3 s.h.
Every other year
The main issues and developments in the formal study of rhetoric from antiquity to the present, with emphasis on the applicability of formal rhetoric to the theory and practice of writing in various circumstances.
203. *Approaches to English Grammar* 3 s.h.
Every other year
A thorough investigation of grammatical principles with a comparison of traditional, structural and transformational approaches. Consideration of the purposes of language study and practical applications of grammatical knowledge in teaching students to write.
210. *20th-Century American Fiction* 3 s.h.
Every other Fall
Major novelists such as Dreiser, Wharton, Hemingway, Fitzgerald, Faulkner and Bellow will be studied, with major criticism of the American novel.
240. *Poetry Writing Workshop* 3 s.h.
Every other year
A graduate-level workshop in the writing of poetry. In addition to writing their own poetry and discussing their poetry with the instructor and other members of the workshop, students read and discuss what poets have written about writing poetry. They

*Open only to students who have fulfilled the Writing Proficiency Test requirement.

also read and discuss poems in connection with the study of meter and other formal structures, the connection of poetry to music, and the distinction between poetry and other literary genres.

241. *Fiction Writing Workshop* 3 s.h.
Every other year

A graduate-level workshop in the writing of fiction. In addition to writing their own fiction and discussing their work with the instructor and other members of the workshop, students read and discuss what fiction writers have written about writing fiction. They also read and discuss works of fiction in connection with the study of narrative voice, theme, plot, pacing, setting, character development, and the creation of convincing and/or coherent fictional and psychological worlds.

242. *Playwriting Workshop* 3 s.h.
Every other year

A graduate-level workshop in playwriting. In addition to writing their own plays and discussing their work with the instructor and other members of the workshop, students read and discuss what playwrights have written about writing plays. They also read and discuss plays in connection with the study of plot, dramatic action, characterization, setting, dialogue, spectacle, and imagery.

243. *Personal Essay Writing Workshop* 3 s.h.
Every other year

A graduate-level workshop in the writing of personal essays. In addition to writing their own essays and discussing their essays with the instructor and other members of the workshop, students read and discuss what essayists have written about the theory and practice of the personal essay. They also read personal essays in connection with the study of the characteristic topics, strategies, and formal issues associated with the genre. Some attention is also paid to the historical development of the personal essay and to the way in which the conventions of the form differ in different cultures.

250. *Readings in English* 1-3 s.h.
Periodically

Designed to permit students to pursue an individualized plan of study in subject areas of interest under the guidance of a member of the English faculty. Students prepare a list of assignments in consultation with their tutor with whom they confer periodically about the progress of their work. Limited to students who have been accepted for a reading course by a member of the department and approved by the department chairperson before registration.

261. *The American Renaissance, 1820-1860* 3 s.h.
Every other Spring
Studies of such writers as Cooper, Hawthorne, Melville, Emerson, Thoreau, Whitman.

271A, 271B. *Sources of the English Literary Tradition I, II: Studies in Chaucer, Spenser and Their Contemporaries* 3 s.h. each

271A: Every other Fall; 271B: Every other Spring
Preseventeenth-century English literature with emphasis on the traditions and conventions it makes use of, the parent forms of genres and modes, the history of philosophical and literary problems. First semester: Chaucer and his contemporaries; second semester: Spenser and his contemporaries.

272. *Sources of the English Literary Tradition III: 17th- and 18th-Century English Literature* 3 s.h.

Every other Fall
Major works of major authors including Donne, Marvell, Defoe, Swift, Pope, Johnson and Wordsworth with emphasis on chang-

ing historical concepts of wit, nature and literary form. Some attention to precedents for American as well as later English literature.

274. *Sources of the American Literary Tradition* 3 s.h.
Every other year

Investigation of the assimilation of various sources, extending back to earlier centuries, by a particular group or groups of 19th-century American writers.

284. *Workshop: Poetry Writing†* 2 s.h.
Discussion includes contemporary poets.

286. *Workshop: Short Fiction Writing†* 2 s.h.
Discussion includes matters relating to the manuscript as well as with general problems of the craft.

287. *Workshop: Childrens Fiction Writing†* 2 s.h.
Discussion includes techniques and themes in contemporary examples of children's fiction.

288. *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.

289. *Workshop: Writing for Stage, Screen and Television†* 2 s.h.
Discussion includes techniques used in contemporary scripts for theater, film and television.

291, 292, 293, 294, A-Z. *Special Studies* 3 s.h. each
Fall, Spring
Studies in periods, major figures, literary genres or modes. Subjects to be announced yearly.

299. *Research Methods* 3 s.h.
Every other Fall
Exercise in the finding and use of scholarly and critical materials. Open only to students enrolled in the M.A. program except by permission of the chairperson of the department.

301. *Master's Essay* 3 s.h.
Fall
Tutorial instruction leading to the completion of the essay, which is one of two optional requirements for the M.A. in English. Prerequisites: ENGL 271A, 271B, 299.

305. *Qualifying Papers* 3 s.h.
Fall, Spring
Tutorial guidance in mastering a large area of specialization, chosen by the candidate, under advisement, for six qualifying papers in examination situations, one of two optional requirements for the M.A. in English.

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

†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.

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:

- 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 405.

17A. *Introductory Conversation, Language Laboratory and Tutorial* 6 s.h.
See course description, page 405.

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. (Formerly *Intermediate Conversation*.)

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. (Formerly *Advanced Conversation*.)

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.

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 84.)

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, 105; TPP 1 or 149;
 42 semester hours in primary curriculum: BIO 114; CHEM 185 or GEOL 132; CSC 5; GEOG 102, 104, or 135; GEOL 33, plus any 7 advanced courses in geology; MATH 10 or 19; PSC 135 or 137; 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 Zychowicz, *Chairperson*

Professors Lyn, Nikbakht, Papaioannou; Associate Professors Bishnoi, Huckins, Krull, Malley, Rai, Viswanathan; Assistant Professors Campbell, Huang, Karagozoglu, Mohanty; 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 complete B.B.A. requirements, page 104.

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 coursework 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 Financial and Academic Records.

MASTER OF BUSINESS ADMINISTRATION PROGRAMS, see page 107.

MASTER OF SCIENCE IN FINANCE, see page 111.

BUSINESS HONOR SOCIETIES, see pages 69, 77.

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 finan-

See University Degree Requirement, page 66.

cial markets and institutions. Prerequisites: sophomore class standing or above, ECO 1, ACCT 1, 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 2. 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. (Formerly *Credit and Working Capital Management*.)

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. (Formerly *Introduction to Money and Banking*.)

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, permission of department chairperson, 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: a minimum grade-point average of 3.5 in finance and 3.4 overall.
201. *Financial Analysis and Markets** 3 s.h.
Fall, Spring
Introduction to financial analysis, financial markets and institutions. Topics include time value of money, security valuation, risk and return, and financial statement analysis. The functions, organization, structure and regulation of financial institutions and markets are described. Overview of the globalization process, ethical, political and social, and demographic issues that apply to financial markets and institutions. Prerequisite: ACCT 201 or approved equivalent. Corequisite: QM 201. (Formerly *Survey of Finance*.)
202. *Corporate Financial Management** 3 s.h.
Fall, Spring
A study of theoretical principles and analytical techniques used in corporate decision making, including capital budgeting, capital structure and dividend policy decisions. International financial management, corporate acquisitions, financial statements analysis, and an overview of working capital management are also covered. An overview discussion of the impact of ethical, social and political issues on financial management. Consideration of other perspectives, such as satisfying diverse groups of stakeholders and environmental concerns. Prerequisites: ACCT 201, FIN 201, QM 201 or approved equivalent. (Formerly *Managerial Finance*.)
205. *Securities Analysis** 3 s.h.
Fall, Spring
Analysis of theories, models and techniques used in the valuation of U.S. and non-U.S. stocks and bonds. Introduction to other investments such as mutual funds and derivatives. Topics covered include analysis of corporate, government, mortgage-backed and municipal bonds, and risk measures for bonds. Earnings forecasting, common stock valuation models, and stock selection are covered in depth. Option pricing, arbitrage pricing, and efficient market theories are also examined. Also covers an introduction to computerized information systems and analysis for investments. Prerequisites: FIN 202, QM 210. (Formerly *Advanced Security Analysis*.)
207. *Advanced Money and Banking** 3 s.h.
Once a year
The functioning of monetary systems and the meaning of monetary policy from the point of view of banks and other financial institutions. Various monetary theories are analyzed in terms of the impact of changes in the volume of money on capital formation, national income, employment, prices and interest rates. Prerequisite: FIN 202.
208. *Seminar in Financial Institutions** 3 s.h.
Once a year
An examination of financial markets and institutions including the role of specialized financial instruments used in the intermediation process. The role of central banks and other public institutions and their interactions with private financial intermediaries are discussed. Policies and factors affecting the performance of financial institutions and the use of financial instruments such as fed funds, repos, eurodollars and swaps are examined. Contemporary problems associated with the internationalization of markets and institutions are also covered. Prerequisite: FIN 202. (Formerly *Seminar: Financial Institutions and Capital Markets*.)
209. *Seminar: Corporate Financial Policy** 3 s.h.
Once a year
In-depth study of the theory of finance; problems and issues on the frontiers of corporate finance. Concentration on capital budgeting, discounting problems and specific valuation modeling. Advanced issues in financial planning and management strategy. Prerequisite: FIN 202.
210. *Portfolio Management** 3 s.h.
Once a year
Exploration of portfolio theory from an individual and institutional viewpoint. Development of appropriate global portfolio

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.

strategies for pension and endowment funds, mutual funds, banks, insurance companies and other financial intermediaries. Topics covered include capital market history and asset allocation, Markowitz diversification, styles of equity portfolio management, management of stock and bond portfolios, and performance evaluation. Provides an introduction to both quantitatively and fundamentally based portfolio management techniques and utilizes computer based information systems and analytical tools. Prerequisites: FIN 202, 205, QM 210. (Formerly *Investment Management*)

122. *International Financial Management** 3 s.h.
Fall, Spring

Extensive examination of the problems related to international financial management. Emphasis on the management of a multinational corporation. Topics include the use of the foreign exchange market, risk management, external sources of funds for foreign operations, international cash management, investment evaluation of current and proposed international operations. Consideration of ethical, legal and environmental issues encountered due to the divergence of goals and needs between parent and subsidiaries and between local and host governments. Prerequisite: FIN 202.

213. *Entrepreneurship and Venture Capital Investing** 3 s.h.
Once a year

Essential principles of entrepreneurial spirit, skills, and risk rewards associated with venture capital investing. Financial analysis of business, and risk and return characteristics; discussion of the various financing sources and the required returns to venture capital investors. Students acquire real-world exposure through the development of strategic and business plans and the presentation of venture capital proposals to business professionals. Prerequisite: FIN 202.

215. *Government Finance** 3 s.h.
Periodically

Public expenditure and revenue decision-making with emphasis on program budgeting, benefit-cost analysis and other efficient budgeting and cash management techniques. Federal, state and local experience with modern financial management programs are examined. Analysis of the effects of alternative tax and other government policies on resource allocation and financial management. Principles of debt and other financing problems at all government levels. Prerequisite: FIN 202.

220. *Real Estate Finance** 3 s.h.
Once a year

Evaluation of mortgages, financial leases, land contracts, and other sources of financing for commercial, industrial, and residential income real estate. Government support for credit markets and issues related to government regulation. Valuation of debt and equity securities backed by real estate. Federal tax policy issues related to real estate partnerships and real estate investment trusts. Financial decision making and the design of financial structure for real estate investment. Prerequisite: FIN 202.

221. *Real Estate Investment** 3 s.h.
Once a year

Real estate valuation theory, including discounted cash flow analysis, and real options theory. Financial analysis for real property investment decisions. Evaluation of foreign and domestic real estate investment opportunities, including office buildings, residential, retail, and industrial properties in America, Latin America, Asia, and Europe. Application of portfolio concepts to the development of local, national, and global real estate portfolios. Prerequisite: FIN 202.

222. *Management of Financial Institutions** 3 s.h.
Once a year

Analysis of the role of private financial intermediaries in providing financial services to the public with a focus on the latest

techniques of asset/liability and risk management in modern day financial institutions. Other topics include the impact of recent regulations and the breakdown of geographic barriers worldwide on the risks and opportunities to financial institutions. The impact of ethical, technological and diversity issues affecting managerial decision making in financial intermediation is also discussed. Prerequisite: FIN 202. (Formerly *Commercial Bank Management*.)

225. *Seminar: Investment Banking** 3 s.h.
Once a year

Study of investment banking activities, including their regulatory, institutional and market environment, with extensive reference to the global marketplace. Analysis of the main investment banking services with emphasis on the mechanics and economics of the issuance process. Analysis of the market for new issues and appraisal of their spread and price performance. Consideration of ethical, technological and diversity issues in investment banking operations. Prerequisite: FIN 202.

257, A-Z. *Seminar: Special Topics in Finance** 3 s.h. each
Periodically

An advanced in-depth treatment of special topics in finance. Current topics are explored through a variety of methods, such as lectures, projects and case studies. Prerequisites: FIN 202, permission of department chairperson, 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 six semester hours of FIN 257 and FIN 258 to fulfill their major requirements so long as each seminar has a different number-letter designation. (Formerly 253, A-Z.)

258, A-Z. *Seminar: Contemporary Issues in Finance** 1-2 s.h. each
Periodically

An advanced in-depth treatment of special topics in finance. Current topics are explored through a variety of methods, such as lectures, projects and case studies. Prerequisites: FIN 202, permission of department chairperson, 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 six semester hours of FIN 257 and FIN 258 to fulfill their major requirements so long as each seminar has a different number-letter designation.

260. *Futures Markets** 3 s.h.
Once a year

Intensive analysis of futures contracts traded worldwide. Topics include the organization and structure of markets in which they are traded, ethical consideration of market participants, effect of recent computer advances on futures markets, valuation of futures and forward contracts, hedging applications, the role of price discovery, and speculative strategies. Although particular emphasis is on financial futures including stock index, foreign currency, Eurodollar and Treasury bond futures, commodity futures are also discussed. Prerequisite: FIN 202. (Formerly *Financial and Other Futures Markets*.)

261. *Option Markets** 3 s.h.
Once a year

Examines the organization, regulation and theory of option markets and the relationship between option prices and underlying instruments. Provides detailed treatment of several pricing formulas. Includes the application of option pricing theory to corporate financing and investment decisions, and the valuation of stock, currency, index and futures options. Emphasizes the use of options as a tool for hedging and discusses the role of speculation and arbitrage strategies. Other topics include ethical

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issues and the application of technology in option markets. Prerequisites: FIN 202, QM 210. (Formerly *Option Theory and Practice*.)

304. *Advanced Research Seminar in Finance** 3 s.h.
Fall, Spring

(NOTE: FIN 306-308 may be offered in place of 304.) Students write an integrative paper on an assigned topic based on secondary research and then formulate a written primary data research design to investigate a specific key issue. They must formulate research questions and hypotheses, construct survey instruments and experimental designs, draft sample plans, outline data handling procedures, and prepare a comprehensive research proposal, furnishing justifications for its theoretical as well as practical significance. An oral presentation of each project is required at the conclusion of the semester. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson.

305. *M.B.A. Honors Research Thesis in Finance** 3-6 s.h.
Periodically

Student selects and designs an integrative research project with the approval and guidance of a faculty member in the area of specialization. Student is required to justify the project's significance within a decision-making framework and define the management applications of the research findings. An oral report of the research findings is presented to a faculty committee. With joint permission of the department chairperson and thesis adviser, a student may expand the M.B.A. Honors Research Thesis from 3 to 6 s.h.; the additional 3 s.h. may be counted toward elective requirements in the area of concentration. Prerequisites: minimum cumulative grade point average of 3.5, completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson.

306. *Case Focused Research Seminar in Business** 3 s.h.
Periodically

Emphasis on multiple functional areas that are taught in the Zarb School of Business. A case study approach is utilized in this course, and students are challenged to understand how decisions and policies from different functional areas are integrated within an organization. Students present detailed recommendations toward resolution of complex business problems within an industry or company which must be supported by appropriate documentation of research and analysis. Written and oral reports are required. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson. Same as ACCT 306, BCIS 306, IB 306, MGT 306, MKT 306.

307. *Consulting Research Project** 3 s.h.
Periodically

Under the supervision of an instructor and working singularly or in a small group, students are assigned to a client organization for one semester. The students and the client organization to which they are assigned will identify the client's specific problems and objectives. Students design and complete one or more integrative consulting projects involving various business principles and conduct research. A written consulting report and an oral presentation are made to a faculty committee and the senior management of the organization. Prerequisites: minimum cumulative grade point average of 3.5, completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the areas of concentration), and permission of the senior assistant dean and director of graduate programs and the department chairperson. Same as ACCT 307, BCIS 307, IB 307, MGT 307, MKT 307.

308. *Integrative Business Simulation** 3 s.h.
Periodically

Course utilizes a comprehensive and integrative computer simulation to create a variety of complex multifunctional business problems to which students must respond under varying conditions of uncertainty. A team-based approach to decision making is used in resolving problems created by the computer model. Students are required to provide detailed reports on decisions made and to provide quantitative and qualitative justifications for their decisions. These justifications must be supported through the use of research and must be presented orally and in writing. Prerequisites: completion of all core competency courses, 21 s.h. of advanced core courses or above (including QM 210, IB 219†, and at least 6 s.h. of the required 15 s.h. in the area of concentration), and permission of department chairperson. Same as ACCT 308, BCIS 308, IB 308, MGT 308, MKT 308. (Formerly *Computer Simulation (Management Game) in Finance*.)

309. *Research Seminar in Finance**** 3 s.h.
Periodically

Course focuses on research in the field of finance. Discussions include development of research questions and hypotheses, data generation, data handling, statistical analysis, and making conclusions. The objective of the course is to acquaint the M.S. student with the practice of research methods as it applies in the area of finance. Students will be introduced to SAS and other computer statistical packages to solve finance-related inquiries. Articles in the field of finance will be reviewed and their methodologies and contributions will be critically evaluated. Prerequisites: completion of 21 s.h., including QM 210, in the area of concentration.

330. *Graduate Internship** 3 s.h.
Fall, Spring

A work-study program open to graduate students who are specializing in finance.

Students work a minimum of 100 hours in the semester for selected business organizations. A written evaluation of a complex financial decision is prepared by the student at the completion of the course. Most internship opportunities involve some form of monetary remuneration. Prerequisites: all core competency courses or approved equivalents, 24 graduate-level credits with a 3.3 average and permission of department chairperson. (Formerly GBUS 330.)

401. *Managerial Economics*** 3 s.h.
Periodically

Discussion of supply and demand theory, equilibrium and the issues related to revenues, costs and profits. Course applies economic theory to organization decision making when subject to constraints. Relationship between decision making and various types of market structures such as perfect competition, monopoly and oligopoly are discussed. The effect on the firm of general economic conditions such as aggregate demand, rate of inflation, and interest rates are examined. The course also covers an overview of money, credit and the banking system.

402. *Managerial Finance*** 4 s.h.
Periodically

Course explores key issues encountered by financial managers and analyzes the decision making that is most consistent with maximizing the value of the firm. Coverage includes, but is not limited to, capital expenditure analysis, mergers and acquisitions,

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**Open only to matriculated Zarb School of Business E.M.B.A. students.

***Open only to matriculated M.S. in Finance students.

†Full-time students may take IB 219 as a corequisite.

working capital management, financing, cost of capital and capital structure decisions, dividend policy, and risk management. Differences among manufacturing services and financial services firms are analyzed. The financial decision-making process is developed with emphasis on the role of global financial markets, ethics, and considering the various constituencies of modern corporation. Cases and computer applications are employed extensively.

Fine Arts (FA)

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

Professor Hilson; Associate Professors Chaleff, Fendrich, Jaffe; Assistant Professors Devine, Ocko; Adjunct Associate Professor Treijs.

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 and must be approved by a faculty committee prior to graduation.

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 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, 175, 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*,
Adjunct Associate Professor Treijs, *Jewelry Adviser*.

NOTE: the humanities requirements may not be fulfilled by additional fine arts or art history courses.

See complete B.A. requirements, page 82.

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 84)
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, *Advisers*.

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 and 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*,
Adjunct Associate Professor Treijs, *Jewelry Adviser*.

B.S. IN ED.—SPECIALIZATION IN FINE ARTS EDUCATION, see page 361.

Associate Professor Fendrick, *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 Graphic Arts I* 3 s.h.
Fall, Spring
Various approaches to printmaking are explored to develop the technical knowledge and facility needed to execute ideas, con-

***See University Degree Requirements, page 66.

- cepts and images in graphic media. Wood block and linoleum cuts and etching are explored.
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.
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. (Formerly *Biomedical Illustration*.)
- 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. (Formerly 45 & 46, *Painting*.)
- 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. (Formerly 45 & 46, *Painting*.)
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 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.
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, batik, 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. *Multimedia Workshop* 3 s.h.
Periodically
Provides an opportunity for innovation and creativity by combining a variety of media such as collage, found materials, video, light and sound in both two-dimensional and three-dimensional media. Emphasis on encouraging experimentation and imagination 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.
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 repoussé 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 405.
- 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 405.
- 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. *Wood-Block Printing* 3 s.h.
Fall, Spring
The development of skills and concepts in two-dimensional design and pictorial compositions for carving wood blocks and printing by the Japanese method in black and white and multiple colors. The history of wood engraving and Japanese and German Expressionist prints are studied as examples.
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.
175. *Serigraphy* 3 s.h.
Periodically
This graphic process incorporates contemporary two-dimensional design concepts and includes a variety of stencil-printing techniques such as glue and tusche, water and lacquer-base films and paper stencils.

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.
216. *Graduate Figure Drawing* 3 s.h.
Fall, Spring
Emphasis on drawing from the model and skeleton with a variety of drawing media. Principles of light and shade, proportion and anatomy are considered as they relate to figure drawing. Prerequisite: undergraduate experience in drawing or permission of instructor.
260. *Graduate Painting* 3 s.h.
Fall, Spring
Workshop course for selected advanced students working to continue the development of their own work on a professional level. Prerequisites: significant undergraduate experience in painting or equivalent, permission of instructor and acceptance by the Departmental Portfolio Committee.
261. *Graduate Sculpture* 3 s.h.
Fall, Spring
Workshop course for selected students working to continue the development of their own work on a professional level. Prerequisite: significant undergraduate experience in sculpture or equivalent, permission of instructor and acceptance by the Departmental Portfolio Committee.
270. *Photography in the Classroom* 3 s.h.
Once a year
Designed to teach educators the use of the camera and darkroom with an emphasis on integrating this knowledge into their school's curriculum. May not be taken on a Pass/Fail basis.
- Graduate Graphics* 3 s.h. each
- 271A. *Photographics*
Fall, Spring
- 271B. *Wood-Block Printing*
Fall, Spring
- 271C. *Etching*
Once a year
- 271E. *Serigraphy*
Periodically
Workshop courses for selected advanced students working to continue the development of their own work on a professional level. Prerequisites: significant undergraduate experience in graphics or equivalent, permission of instructor and acceptance by the Departmental Portfolio Committee.
280. *Ceramics* 3 s.h.
Fall, Spring
Workshop for advanced students continuing the development of their work on a professional level. Prerequisites: significant undergraduate experience in pottery or equivalent; permission of instructor or acceptance by the Departmental Portfolio Committee.
281. *Glaze Formulation and Surface Decoration* 3 s.h.
Fall, Spring
Research and experimentation with clay and glaze properties. Advanced work in surface decoration.
282. *Graduate Ceramic Sculpture* 3 s.h.
Once a year
283. *Japanese Ceramics* 3 s.h.
Periodically
Research in history and techniques; advanced work in ceramics enriched by that research.
- 285, 286, 287. *Individualized Research and Production* 3 s.h. each
Periodically
A tutorial course: students explore in depth the history of ceramics, a period in art history or a professional artist; complete an extensive research paper and produce a body of their own work supervised by their instructor.
- 290, 291, 292. *Advanced Ceramics* 3 s.h. each
Fall, Spring
Workshop for advanced students continuing the development of their work on a professional level. Prerequisites: FA 280 and permission of instructor or acceptance by the Departmental Portfolio Committee.
- 295, 296, 297. *Research, Design and Experimentation* 3 s.h. each
Periodically
Students develop their own work in clay. A study of artists and potters whose work has bearing on their own. Research and experiment with techniques necessary to attain the results desired. Prerequisite: permission of the instructor.

Foreign Languages

SEE COMPARATIVE LITERATURE AND LANGUAGES, PAGE 167;
FRENCH, PAGE 237; ITALIAN, PAGE 272; SPANISH, PAGE 376.

Foundations of Education (FDED)

Administered by the Department of Foundations, Leadership and Policy Studies. Associate Professor Osterman, *Chairperson*

Professors Barnes, Kottkamp, Shakeshaft, Smith; Associate Professors Brieschke; Assistant Professors Duarte, Richardson, Scott.

Professor T. Smith, and Assistant Professor Scott, *Codirectors*

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 195.

Also available are programs leading to the Master of Science in Education and the Certificate of Advanced Study in Foundations of Education.

GRADUATE PROGRAM

The graduate program in Foundations of Education is designed for students with varied backgrounds and interests. While some

candidates plan to pursue careers in education, others are primarily interested in the interpretive study of educational values, beliefs, theories, and practices. The degree program basically consists of elective courses taken under advisement in areas related to educational thought and to philosophical, historical, and social foundations of education. Electives in such diverse disciplines as anthropology, psychology, sociology, political science, and economics, are all considered relevant to the Foundations of Education program. *This degree program will provide permanent certification for those students who have obtained provisional certification.*

Admission to the program is dependent on holding a bachelor's degree from an accredited institution, submission of official college transcripts, and a personal interview with appropriate graduate faculty. In addition, each student is asked to provide both a recent writing sample and a statement of purpose for wanting to enroll in the program. Though individual programs vary to reflect diversity in students' interests, most follow the requirements set forth below.

MASTER OF SCIENCE IN EDUCATION

Programs are mutually determined (in advance) by adviser and student, and each course of study differs as a whole from others. Most, however, follow these general provisions:

1. A minimum of 18 s.h. of 200-level course work in the School of Education, most of which is generally pursued in Foundations of Education.
2. 200-level courses in at least three different foundations areas—e.g., philosophy of education, social foundations of education, history of education or sociology of education.
3. A minimum of 9 s.h. of 200-level course work in related study in the College of Liberal Arts and Sciences (ordinarily in philosophy and/or the social sciences).
4. Satisfactory completion of a comprehensive examination or a master's essay (see FDED 301, 302).
5. Satisfactory completion of a minimum of 33 s.h.

See complete graduate information, page 77.

CERTIFICATE OF ADVANCED STUDY

A 30-semester-hour program in Foundations of Education at the post-master's level leads to a Certificate of Advanced Study. The requirements are similar to the master's program, but a comprehensive examination is not required.

EDUCATION HONOR SOCIETIES, see pages 69, 77.

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
Education as a major social institution focusing on the diverse influences which shape and compel public schooling. Hypotheses and analytic tools from a variety of the social sciences are employed as means of exposing and interpreting central features

of the American public educational system. Not open to freshmen. 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 American 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, and exploration of the philosophical issues and assumptions involved in various classroom practices. 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

*FDED 127 and 200 are introductory courses in philosophy of education. Students with more than an introductory course in philosophy should consult a Foundations of Education adviser about substitutions.

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.a235;10

200. *Philosophy of Education** 3 s.h.
Fall, Spring

Consideration of selected issues involving morals and values, knowledge claims and assertions, the uniqueness of being human, and how these issues are all related to schooling and education. Emphasis is on contemporary problems confronting educational personnel.

210. *Contemporary Educational Movements* 3 s.h.
Fall, Spring

Examination of the most influential sets of proposals currently influencing American education. The ideas guiding progressive schools, humanistic education and the deschooling movement are among those explored. Emphasis throughout is on analysis and appraisal of these proposals for guiding educational practices and arrangements.

211. *The School and Society* 3 s.h.
Fall, Spring

The school is a societal institution created specifically for the purpose of education. The school is both shaped by societal factors and, in turn, has impact upon the society. Contemporary schools for children and adolescents, as well as institutions of higher education for adults in the United States, are impacted by the political and governmental system of the country; the economy; patterns of social stratification; the multicultural diversity within the population. The school also interacts with other societal institutions concerned with education; museums, libraries, religious institutions, health care institutions, the work place in the community, as well as the family.

220. *Aesthetic Education* 3 s.h.
Fall, Spring

Interdisciplinary analysis of selected theories of the educational significance of aesthetic perception, artistic creativity and art criticism. Materials are drawn from philosophy, social sciences, the arts and educational theory.

222. *Qualitative Research Methods* 3 s.h.
Periodically

Research methodology for examining the social forces which influence the ways in which participants experience and interpret school settings. Techniques for gathering data through field observations, interviews and documents are emphasized. Open only to doctoral students. May not be taken as a foundations of education elective.

223. *Analysis of Qualitative Data* 3 s.h.
Once a year

Principles, methods, and techniques in the analysis and reporting of such qualitative data as are obtained through field methods including observations, interviews and examination of documents. Upon completion of this course, students are expected to be able to plan, carry out and report the results of systematic analysis of qualitative data that have been collected in field settings. Emphasis on deriving thick description, grounded theory and preparing a case study from the data. Prerequisite: FDED 222. Open only to doctoral students. May not be taken as a foundations of education elective.

225. *The Museum as Educator* 3 s.h.
Once a year

Exploration of the evolution of educational functions and multiplicity of roles served by diverse kinds of museums, as those

devoted to art, history, natural science, ethnography, technology and popular culture. Materials and educational theory are drawn from the fine arts, history, philosophy, and the several social and behavioral sciences. On-site field investigations of New York City and Long Island museums are required.

230. *History of Education in the United States* 3 s.h.
Periodically

The development of American education from colonial times to the present in relation to social and intellectual history. Emphasis is on understanding the cultural forces, institutions and ideas that have shaped American education.

231. *Childhood and Adolescence in Historical Perspective* 3 s.h.
Spring

Students explore aspects of childhood and adolescence drawn from a variety of cultures and historical eras. Attention is focused on the socialization of the young into acquiring the behaviors, norms, knowledge, and systems of belief traditionally held dear by the adult members of society. The crucial role of the family is underscored. Play, toys, and games are examined as preparation for societal participation. Where appropriate, the role of schooling and other educational institutions are examined, as well as educational thought. Museum visitations, cooperative team inquiry, and hands-on learning are required in addition to the usual methods of graduate study.

240. *Urban Education* 3 s.h.
Periodically

Selected issues confronting urban education today including a multifaceted analysis of the city itself as the context of urban education. Aesthetic, political, racial, and sociological dimensions of city life and urban schools are probed. Limited small group field investigation in New York City will be required.

241. *Education and Revolutionary Ideology* 3 s.h.
Periodically

Critical examination and appraisal of selected contemporary works urging systematic reform of present day society and the ramifications of such thought for education.

244. *Seminar: Alternative Education* 3 s.h.
Fall, Spring

An introduction to alternative education with emphasis on the qualities and organizational features which identify and distinguish it from conventional schooling. Descriptive accounts and visits from Long Island alternative school personnel provide first hand acquaintance with such educational arrangements; analytic materials and class discussion explore the qualities which alternative education reflects.

247. *The Family as Educator: Multicultural Dimensions* 3 s.h.
Spring

Within America's multiculturally diverse society, families are the first educators not only for infants, children, and adolescents, but for adults. Within the context of the family, important values, attitudes, and skills are first shaped and continue to be reinforced. Gender roles, religious identity, social class status, and ethnic group membership are conveyed within families and further reinforced by community institutions. Educators seeking to understand learners (be they infants, children, adolescents, or adults) must attend to familial patterns and variations as well as to community-based institutions. Education is, in the final analysis, much more than schooling.

248. *Multicultural Education in the Metropolitan Area* 3 s.h.
Fall

Interdisciplinary examination of the educative influences of ethnicity as this impinges upon the school, the community's

*FDED 127 and 200 are introductory courses in philosophy of education. Students with more than an introductory course in philosophy should consult a Foundations of Education adviser about substitutions.

agencies, the family and the learner within the metropolitan New York area. Students are required to engage in limited small group field investigation of agencies and institutions designed to provide services to ethnic group members.

249. *Workshop: Career Education* 3 s.h.
Spring

Interdisciplinary study designed to provide both a theoretical understanding and practical application of several major career education emphases, namely: (1) self-image, self-awareness, self-concept; (2) values clarification and decision making; (3) career awareness; (4) career information; (5) career choice and guidance; and (6) career training. Same as SED 249.

251. *Theory of Knowledge and Education* 3 s.h.
Periodically

Philosophic study of teaching, learning and knowing in relation to the work of the schools.

252. *Ethics for Educators* 3 s.h.
Periodically

Introduction to the study of the place of values in education. Attention given both to ethical theory and its sociocultural roots and to the application of ethics to educational decisions.

254. *Contrasting Theories in Education* 3 s.h.
Every other year

An examination and analysis of humanism and behaviorism, with attention to their philosophic assumptions and their specific implications for educational programs and practice.

255, 256. *Seminar: Social Foundations of Education* 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.

257, 258. *Seminar: Philosophy of Education* 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.

260. *Human Nature and Education* 3 s.h.
Periodically

Critical study of selected philosophic conceptions of human nature and their significance for educational theory and practice. Special attention is given the relation between human cognitive and affective dimensions.

261, 262. *Readings* 1-3 s.h. each
Spring

Individual oral and written reports on a mutually determined reading or research program. Prerequisite: permission of instructor.

270. *Gender and Schooling: Implications for the Study and Administration of Schools* 3 s.h.
Fall

Goal of this course is to look at both the theoretical and practical implications of gender, providing a framework for thinking about issues as well as for acting on them. Same as EADM 258.

280. *Logical Foundations of Teaching and Method* 3 s.h.
Periodically

Logical and linguistic foundations of teaching and classroom method. Elements of logic and philosophical semantics as ap-

plied to classroom teaching for critical thinking and inquiry: types of definition and meaning, conceptions of inference and reasoning, types of statements and modes of discourse—all as related to teaching operations.

282. *Methodology for Educational Inquiry* 3 s.h.
Periodically

Study of comparative, analytic, descriptive, causal-explanatory and evaluative method as used in philosophic and historical inquiry into education.

285 through 289, A-Z. *Advanced Workshops* 1-3 s.h. each
Fall, January, Spring, Summer

Special focus is placed upon the underlying bases of specific problems and questions of concern to present and future educational personnel.

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.

301, 302. *Master's Essay* 3 s.h. each
Periodically

Supervision and instruction leading to the completion of the master's essay. Degree credit granted for only one of these courses. Admission by permission of adviser.

303 through 309. *Post-Master's Workshops* 1-3 s.h. each
Periodically

Workshops designed to explore special issues and problems in foundations of education.

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.

Associate Professor Osterman, *Chairperson*

French (FREN)

Administered by the Department of Romance Languages and Literatures. Associate Professor Schwab, *Chairperson*

Associate Professors Jean, Powell; 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 82.

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 the successful completion of 18 semester hours, at least six hours in residence, chosen in consultation with an adviser in French. FREN 4, 103A and 107 may be included as part of the minor.

PI DELTA PHI: a national French honor society, see page 71.

TEACHING OF HIGH SCHOOL FRENCH, see page 362.

MASTER OF ARTS IN FRENCH*

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. Credit given for 2R or 1 but not both and 2R or 2 but not both.

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 1A, 2 or 2R.

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. (Formerly 126.)

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* 3 s.h.
See course description, page 405.

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 405.

105. *Advanced Reading* 3 s.h.
Fall
Development of the reading skill. 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

*Applications not accepted in 2000-2001. For further information contact the Department of Romance Languages and Literatures.

- 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. (Formerly *Advanced French*.)
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.
- 130A. *Aspects of French Culture* 1 s.h.
See course description, page 405.
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 405.
- 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."
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.
- Courses 200 and above are open only to matriculated graduate students or by permission.*
200. *History of the French Language* 3 s.h.
Periodically
The evolution of the language from Latin to modern French.
201. *The French Language* 3 s.h.
Periodically
The phonetic and phonological structure of French. Exercises in phonetics in the language laboratory.
202. *Studies in French Civilization* 3 s.h.
Periodically
A view of the contemporary period through representative texts revealing aspects of present-day France. Supplemented by films and recordings.
210. *Humanism and Renaissance* 3 s.h.
Periodically
211. *Studies in Classicism* 3 s.h.
Periodically
212. *Studies in the Enlightenment* 3 s.h.
Periodically
213. *Literature of the 19th Century* 3 s.h.
Periodically
Study of the novel, poetry or criticism.
214. *Literature of the 20th Century* 3 s.h.
Periodically
Study of the novel, the theater or poetry from 1900 to the present.
- 221 through 226. *Special Topics* 3 s.h. each
Periodically
Intensive study of the language or a major author, movement or literary genre. Subjects to be announced.
301. *Master's Essay* 3 s.h.
Periodically
This course represents a department member's guidance and sponsoring of a student who undertakes to write a master's essay. In the manner of the master's thesis, the essay is expected to show thoroughness of scholarship. The student may present an original translation together with a substantial scholarly introduction and footnoted variants and explanations. Material for which prior translations exist will not be acceptable. Credit will be given when the essay is approved by appropriate members of the department.
- LITERATURE IN TRANSLATION (FRLT):** 41, 42, 43, 44, 45, 46, 47, 48, 49, 60, 120, 121.
41. *Me, Myself, and I: Autobiographical Expressions from the French #* 3 s.h.
See course description, page 405.
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, Southeast Asia, and the Caribbean #* 3 s.h.
Periodically
Examination of literary voices from Francophone countries including Senegal, Algeria, Tunisia, Haiti, Guadeloupe and Martinique. 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, Sow-Fall, Senghor, Césaire, Etienne, S. Schwartz-Bartz. All works are read and discussed in English. (Formerly *Decolonizing the Mind: Contemporary Literature from Africa and the Caribbean; Decolonizing the Mind: Contemporary 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-Nietzchean 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. (Formerly *Irony in Modern French Literature: An Archetypal View of Protagonists in Major Modern French Authors.*)

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 and General Business. Associate Professor Charnov, *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.

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 in-

cluding 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, permission of department chairperson, 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.

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 2, BCIS 10, 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.

220. *Applied Business Principles and Aging* 3 s.h.
Once a year

An introductory general business course for health care professionals. Major components of business, including financial planning, strategic analysis, marketing management, and the management of human resources and organizations are examined. Emphasis is on how these concepts specifically relate to the aging population. Included are topics on the elderly as a viable market, management of health care facilities, and promotion of health care products and services. Functional categories of decision making, organizing and allocation of resources for administrators who operate in the area of the elderly are discussed. Open

only to students matriculated in the Gerontology Program. Not for M.B.A. degree credit.

251, 252. *Readings in Business Administration** 3 s.h. each
Periodically

Assigned readings for advanced graduate students on a tutorial basis. Prerequisite: permission of department chairperson.

257, 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 202, permission of department chairperson, 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.

330. *Graduate Internship** 3 s.h.
Periodically

An *interdisciplinary* business internship open to graduate students from any specialization offered in the Zarb School of Business.

Students work a minimum of 100 hours in the semester for selected business organizations. Students must submit periodic progress reports for review and a comprehensive in-depth evaluation of a complex strategic business decision at the end of the semester. Most internships carry some form of monetary remuneration. Prerequisites: all core competency courses or approved equivalents, 24 graduate-level credits with a 3.3 average and permission of the department chairperson in the area of the student's concentration and permission of the Management and General Business Department chairperson.

Geography (GEOG)

Administered by the Department of Economics/Geography.
Professor Moghadam, *Chairperson*

Associate Professor Wiley; Assistant Professor Saif.

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 82.

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. *Environment and Society* 3 s.h.
Periodically

Introduction to the major elements of mankind's physical environment and the interrelationships between environment and society in selected regions of the world.

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.

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 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 405.

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. (Formerly *Geography of Anglo-America*.)

113. *Economic Geography of East and Southeast Asia* 3 s.h.
Periodically

Introduction to the regional economics of China, Japan and the adjacent states of East and Southeast Asia.

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.).

*Open only to matriculated Zarb School of Business graduate students and/or matriculated School of Education and Allied Human Services graduate students where appropriate.

#Core course

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; U.S.S.R. and Eastern 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. (Formerly 101.)
140. *Geography of Latin America #* 3 s.h.
See course description, page 405.
141. *Geography of the Caribbean* 3 s.h.
See course description, page 405.
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
See course description, page 405.
190. *Internship in Geography* 3 s.h.
See course description, page 405.
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.
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 84.)
Foreign language: fulfillment of one of the following options:
- complete 2 semesters of a language not previously studied;
 - 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:
 - place above level 4 of that language;
 - complete level 4 of that language;
 - complete 2 semesters of that language.
- 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:
- 30 semester hours in geology, chosen in consultation with the chairperson.
 - CHEM 3A, 3B, 4A, 4B; PHYS 1A & 2A, 1B & 2B.
 - 6 semester hours in mathematics (including calculus).
 - 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 225.

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 82.

TEACHING OF HIGH SCHOOL EARTH SCIENCE AND GENERAL SCIENCE, see page 363.

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.

*See University Degree Requirements, page 66.

#Core course

Geology (GEOL)

Professor Radcliffe, *Chairperson*

Professors Merguerian, Wolff; Assistant Professor Bennington; Adjunct Professors Liebling, Rockwell; Adjunct Associate Professor Sichko; Adjunct Assistant Professor Dieffenbach; Adjunct Instructor G. Bennington.

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

- The successful completion of at least 124 semester hours and a cumulative grade-point average of 2.0 in work completed at Hofstra.

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.
See course description, page 405.

6. *Introduction to Dinosaurs and the Mesozoic World* # 3 s.h.
See course description, page 406.

7, 8. *Earth Science I#*, *II#* 3 s.h. each

7: Summer Session I

8: Summer Session II

(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 landforms, 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, economic 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. (Formerly 1A.)

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. (Formerly 2A.)

18. *Geological Cartographic Techniques* 3 s.h.
Every other Fall

Provides a working knowledge of cartographic and drafting techniques as applied specifically to geologic investigations including shading, coloring, geologic symbols, map scale, reduction, 3-D clinographic perspectives, fence diagrams, subsurface structure contours, isopachytes. Students learn and practice techniques that will aid them in advanced geology courses, careers as professional geologists, the visualization and planning of figures and annotated photographs for papers, theses and publications. (2 hours lecture, 2 hours laboratory.) May not be taken on a Pass/D+/D/Fail basis. No liberal arts credit.

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 406.
- 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.
204. *Regional Geology for Teachers and Travelers* 3 s.h.
Periodically
Examination of rock outcrops and geologic structures of one or more geologic provinces during travel to examine and interpret the geologic history of a region. Area is first described through regional field guides, texts, maps, specimens and charts to gain an understanding of the geologic features and processes that shaped the area. Course meets for seven days (28 hours) of laboratory-oriented lectures, followed by four to eight days of on-site field work. Consult department for travel cost.
- 251, 252. *Readings* 3 s.h. each
Periodically
Oral and written reports on research readings geared to the planned program of the individual. Prerequisite: permission of instructor and chairperson.

German (GERM)

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

Major and minor requirements in German, see page 167.

German Literature in Translation courses, see page 282.

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.

1. *Elementary German* 3 s.h.
Fall, Spring
Fundamentals of structure. Oral drill.
2. *Elementary German* 3 s.h.
Fall, Spring
Continuation of 1. Selected readings. Prerequisite: GERM 1 or equivalent.
3. *Intermediate German* 3 s.h.
Fall, Spring
Structural review, intermediate readings. Prerequisite: GERM 2 or equivalent.
4. *Intermediate German* 3 s.h.
Fall, Spring
Nineteenth- and/or 20th-century authors. Survey of German culture. Prerequisite: GERM 3 or equivalent.

100. *Honors Essay* 3 s.h.
Fall, Spring
Research and writing of a substantial essay in the field of German. Open only to senior majors who are eligible for departmental honors and who secure, before registration, written permission of the faculty adviser who will supervise the essay.

Prerequisites for all courses numbered 101 through 119: successful completion of 4 or permission.

- 101 through 106. *Advanced German Language* 3 s.h. each
One course each semester
(These courses may be taken in any order and will be geared to individualized instruction.) An integrated sequence of courses, rather than six individual courses, this language sequence gradually develops the student's proficiency in the spoken language, in writing (including grammar) and in reading. Text material will range from simple stories to more sophisticated language and will include culture and civilization topics. The individual student's needs and wishes will determine the exact nature of each course. A detailed personal record will be maintained to assure the development of each student's skills.

To be offered one per semester in a three-year cycle.

109. *German for Business* 3 s.h.
Periodically

Introduction to the business community of German-speaking countries including economics, finance, marketing, management and computers. Business terms will be emphasized. Extensive written and conversational skills. Prerequisite: GERM 4 or equivalent or permission.

116, 117, 118, 119. *Advanced Readings* 1-3 s.h. each
Periodically

Designed to help students maintain proficiency in German and at the same time enhance their reading facility within their own specific field.

Prerequisites for courses 151 through 156: permission of the department, normally after 6 semester hours in the 101-106 category.

151 through 156. *Masterpieces of German Literature* 3 s.h. each

One course each semester

The primary objective is to develop each student's ability in the critical reading of outstanding authors in German literature taken essentially from the 18th century to the present. Readings will be chosen according to each student's prior experience and interests. Rather than a chronological approach with division into literary movements, the student will choose, upon advisement, one or more themes (e.g., the artist and society, literature of social protest, the role of women, the search for identity) which will be pursued by private reading, followed by written reports and/or oral reports to the whole class. The student who has taken four or more courses in this sequence can be expected to have gained sufficient insight into literary genres and movements to be able to undertake, in the senior year, a synthesis of German literature. A detailed personal record of reading progress will be maintained to assure the systematic development of each student's facility in literary criticism.

To be offered one per semester in a three-year cycle.

160. *Translation* 3 s.h.
See course description, page 406.

Courses 221 through 226 are open only to matriculated graduate students or by permission.

221 through 226. *Readings in Literature or Special Studies* 3 s.h. each

Periodically

Intensive study of an outstanding author, movement or literary genre. Subjects to be announced. May be repeated when topics vary.

Gerontology (GRON)

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

ADVANCED CERTIFICATE IN GERONTOLOGY

This certificate program provides students with a basic interdisciplinary background in gerontology coupled with a related field placement. The certificate is tailored to individual student's needs, interests, and experience. This 21 credit hour program (18 credit hours of courses and 3 credit hours in a field placement) may be taken as a separate certificate, in conjunction with a degree program or as a separate specialization for persons not currently matriculated for a degree.

Professor Gold, *Coordinator*

Sem. Hrs.

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Required

ANTH 215. *Introduction to Gerontology: Aging in American Life*, 3 s.h.

APS 244. *Aging, Public Policy & the Law*, 3 s.h.

MHAE 292. *Health & Aging*, 3 s.h.

Electives, under advisement:

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GRON 248. *Lifelong Learning for the Aging*, 3 s.h.

251, 252. *Readings*, 3 s.h. each

PSY 263. *Current Theory & Research in Psychology of Aging*, 3 s.h.

GBUS 220. *Applied Business Principles & Aging*, 3 s.h.

MHAE 293. *Healthcare Policies, Planning & Administration for the Aging*, 3 s.h.

APS 245. *Legal Aspects of Managing Healthcare Programs for the Aging*, 3 s.h.

MKT 250. *Healthcare Marketing*, 3 s.h.

COUN 203. *Introduction to Counseling*, 3 s.h.

225. *Counseling for Death, Dying & Bereavement*, 3 s.h.

237. *Counseling Families of the Elderly*, 3 s.h.

244. *Interviewing & Therapeutic Counseling with the Aging*, 3 s.h.

CAT 249. *Therapeutic Art for the Elderly*, 3 s.h.

PSY 264. *Aging & Human Behavior*, 3 s.h.

Additional courses available under advisement

Internship, under advisement:

3

APS 294. *Administrative Internship*, 3 s.h.

MHAE 263A. *Supervised Externship: Community Agencies*, 3 s.h.

COUN 294. *Internship: Counseling*, 3 s.h.

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MASTER OF SCIENCE IN GERONTOLOGY

This degree program is designed to prepare graduate students to pursue careers which will help older adults make better decisions about their own lives. The education and practical skills gained through this degree program will provide students with an interdisciplinary base of knowledge and experience which will increase their effectiveness in assisting older adults.

Students graduating from this program will have obtained a competency in gerontology with a subspecialty in either Administration of Services for the Aging or Counseling of the Aging. These subspecialties or tracks, provide students with an opportunity to pursue a program of study that is reflective of their individual needs and interests, as well as the needs and interests of older adults.

Students opting for a concentration in administration are expected to gain the necessary knowledge and skills related to management, public policy, social and health service planning, program development and evaluation of services for the aging.

Students concentrating in the counseling subspecialty are expected to develop the knowledge and skills necessary to provide direct therapeutic services to older adults. This would include vocational and health counseling, individual and family counseling and preretirement planning.

Professor Gold, *Coordinator*

ADMISSION REQUIREMENTS

1. Applicants must hold a bachelor's degree from a fully accredited college or university with a minimum 2.5 grade-point average.
 - a. Admission to the Administration of Services for the Aging subspecialty requires experience or equivalent in administration and/or business and direct services.
 - b. Admission to the Counseling of the Aging subspecialty requires a bachelor's degree in a behavioral science or mental health discipline.
2. An interview with the Program Coordinator or representative.
3. Three letters of recommendation from recent employers or undergraduate professors.

4. Students with less than a 2.5 grade-point average must meet with the Program Coordinator to determine additional entrance requirements.

DEGREE REQUIREMENTS

- The completion of 39 semester hours of graduate study in addition to any specified prerequisites; satisfactory completion of coursework; and successful completion of a comprehensive examination or departmentally authorized equivalent. (No degree credit.)
- The Master of Science degree may be completed on a part or full-time basis. Courses are normally offered during the fall and spring semesters, with special seminars or workshops offered during the January or Summer Sessions.

PROGRAM REQUIREMENTS—39 s.h. as follows:

Core courses: 15 s.h. (required for all students in either Track)

- ANTH 215. *Introduction to Gerontology: Aging in American Life*, 3 s.h.
 APS 244. *Aging, Public Policy & the Law*, 3 s.h.
 MHAE 292. *Health & Aging*, 3 s.h.
 PSY 263. *Current Theory & Research in Psychology of Aging*, 3 s.h.
 RES 258. *Understanding Research Methodology*, 3 s.h.

Track I: Administration of Services for the Aging

Required courses: 12 s.h.

- GBUS 220. *Applied Business Principles & Aging*, 3 s.h.
 MHAE 293. *Healthcare Policies, Planning & Administration for the Aging*, 3 s.h.

Internship: 6 s.h.

- APS 294, 295. *Administrative Internship*, 3 s.h. each or
 MHAE 263B. *Administrative Residency*, 6 s.h.

Experienced candidates may substitute 6 s.h. of electives.

Electives: 12 s.h. (6 s.h. free electives; 6 s.h. from the following)

- APS 245. *Legal Aspects of Managing Healthcare Programs for the Aging*, 3 s.h.
 MHAE 249. *Nursing Home Administration I*, 3 s.h.
 254A. *Home Healthcare Administration*, 1½ s.h.
 MKT 250. *Healthcare Marketing*, 3 s.h.
 RES 387. *Skills in Funding & Proposal Development: Government, Foundation & Corporate*, 3 s.h.

Master's Essay: 3 s.h.

- APS 251. *Readings in Administration*, 3 s.h. or
 MHAE 251. *Special Readings Seminar*, 3 s.h.

Track II: Counseling of the Aging

Required courses: 15 s.h.

- COUN 203. *Introduction to Counseling*, 3 s.h.
 237. *Counseling Families of the Elderly*, 3 s.h.
 244. *Interviewing & Therapeutic Counseling with the Elderly*, 3 s.h.

Internship: 6 s.h.

- COUN 294, 295. *Internship: Counseling*, 3 s.h. each

Experienced candidates may substitute 6 s.h. of electives.

Electives: 9 s.h. (3 s.h. free electives; 6 s.h. from the following)

- COUN 225. *Counseling for Death, Dying & Bereavement*, 3 s.h.
 CAT 249. *Therapeutic Art for the Elderly*, 3 s.h.
 PSY 264. *Aging & Human Behavior*, 3 s.h.
 265. *Aging & Personality*, 3 s.h.

Master's Essay: 3 s.h.

- CRSR 251. *Readings*, 3 s.h.

Free elective options regardless of specialization, under advisement:

- ANTH 214. *Aging in a Cross-Cultural Perspective*, 3 s.h.
 GRON 248. *Lifelong Learning for the Aging*, 3 s.h.

280-289, A-Z. *Workshops*, 3 s.h. each

- MHAE 291. *Nutrition & the Aging*, 3 s.h.

RES 259. *Introduction to Statistical Methods in Educational Research*, 3 s.h. and

259L. *Computer Laboratory*, 1 s.h.

260. *Inferential Statistics in Educational Research*, 3 s.h. and

260L. *Computer Laboratory*, 1 s.h.

See complete graduate information, page 71.

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.

248. *Lifelong Learning for the Aging* 3 s.h.
 Periodically

While adult learning has become a well-developed and mature discipline, less emphasis has been given to the educational and intellectual interests of the older adult. Focus on the relationship between teaching and learning, and the aging process. Emphasis on the special aspects and issues involved in lifelong learning for the more senior members of our society. Pass/Fail grade only. (Formerly CPRE; CRSR 248.)

251, 252. *Readings* 1-3 s.h. each
 Fall, Spring, Summer

Directed readings on topics of interest to the student. Prerequisite: permission of instructor.

280 through 289, A-Z. *Workshops* 1-3 s.h. each
 Periodically

Designed to meet the needs of specific groups of students.

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.

300. *Master's Essay* 3 s.h.
 Fall, Spring

Development and implementation of Master's Essay. Prerequisites: matriculation in Gerontology and completion of all required course work. Pass/Fail grade only. Note: this course is accepted in lieu of the Gerontology comprehensive examination. This course may not be used to satisfy part of the basic 39 s.h. requirements.

Greek (GRK)

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

Major and minor requirements in Greek, see page 167.

Greek Literature in Translation courses, see page 281.

Modern Greek courses, see page 303.

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.

1, 2. *Elementary Greek* 3 s.h. each
 1: Fall; 2: Spring

Completion of the essentials of grammar. Selected readings.

3. *Survey of Greek Prose Style* 3 s.h.
 Fall

The development of prose style with selections from the historians, orators and philosophers. Prerequisite: GRK 2 or equivalent.