

COLLEGE OF HUMAN ECOLOGY

ADMINISTRATION

Francille M. Firebaugh, dean

Charles McClintock, associate dean

William Lacy, associate dean; director of Cornell Cooperative Extension

Carol L. Anderson, assistant dean; associate director of Cornell Cooperative Extension

Jennifer Gerner, assistant dean; assistant director, Cornell University Agricultural Experiment Station

Brenda Bricker, director, admissions

Mary Rhodes, college registrar and director, student services

FACILITIES

The College of Human Ecology anticipates and responds to human needs in the areas of nutrition and health, economic and social well-being, environmental design and technology, and human development through education, basic and applied research, and the extension of knowledge. The college is distinctively characterized by the quality of its research in the natural and social sciences and the design arts, a global perspective in academic programs, a preventive approach to contemporary societal problems, multidisciplinary departments and programs, development of leadership in students and citizens, and a commitment to diverse populations. Faculty and students examine individuals in relation to their family, neighborhood, workplace, and community, seeking a balance between theory and practice that will improve the quality of everyday life.

The college is housed in Martha Van Rensselaer Hall. The Division of Nutritional Sciences, an intercollege division supported jointly by the College of Human Ecology and the College of Agriculture and Life Sciences, has space in Savage Hall and in Martha Van Rensselaer Hall.

The buildings include administrative and faculty offices, classrooms, auditoriums, and lecture halls; wet chemistry and biochemistry laboratories for nutrition, food science, and textile science; experimental food laboratories; design studios and a computer-aided design laboratory; woodworking shops; experimental observation rooms with one-way vision screens and sound-recording equipment; educational television studios; and a printing and reproduction facility. Also included are learning resource centers for career planning, field and international study, a historical costume collection, a human metabolic research unit, a research animal facility, cold rooms, a constant temperature and humidity laboratory, and an early childhood research and care program.

Specialized equipment for teaching and research includes biochemical and chemical instruments for spectroscopy, chromatogra-

phy, radioisotope analysis, electrophoresis, microscopy, and ultracentrifugation; physical testing equipment; and cameras, videotape, and sound recording equipment.

DEGREE PROGRAMS

	Degree
Biology and Society	B.S.
Consumer Economics and Housing	B.S.
Design and Environmental Analysis	B.S.
Human Development and Family Studies	B.S.
Human Service Studies	B.S.
Nutritional Sciences	B.S.
Policy Analysis	B.S.
Textiles and Apparel	B.S.
Individual Curriculum	B.S.

DIVISION OF STUDENT SERVICES

Brenda Bricker, director, Office of Admissions

Mary Rhodes, college registrar and director, Office of Student Services

Persons interested in undergraduate study in human ecology should contact the Office of Admissions, 170 Martha Van Rensselaer Hall. Those interested in graduate study should contact the graduate field representative identified among the faculty of each department. Department faculty are listed at the beginning of the course descriptions for each department.

Matriculated students can find assistance with matters of academic credit, graduation requirements, academic advising, career planning and placement, and personal counseling from the Office of Student Services, N101 Martha Van Rensselaer Hall. International students should contact their student counselor in the Office of Student Services.

The Students

The College of Human Ecology undergraduate enrollment is 1,330 with 57 percent in the upper division. About 343 students are graduated each year, and last year 279 freshmen and 77 transfer students matriculated. One hundred faculty members serve as advisers for undergraduates.

The college's undergraduate admissions committee selects applicants who are academically well prepared and appear most likely to profit from the college's various curricula. Admission is selective.

Approximately 70 percent of the student body comes from New York State, with the remainder from other parts of the United States and abroad. Twenty-six percent were identified as members of minority groups in 1994.

Approximately 220 graduate students have members of the college's faculty chairing their special committees. The college awarded 59 master's degrees and 20 doctorates last year.

ACADEMIC PROGRAMS

Majors

Selection of a major begins with selection of career goals. In their freshman and sophomore years, students can explore ways to relate their personal interests and capabilities to their career goals. As a result, they sometimes decide to change their major. The counselor for career development in the Office of Student Services (N101 Martha Van Rensselaer Hall), and resources in the Student Resource Center (N139 MVR) can help students through their career exploration process.

Each department offers a major, and within most departmental majors there are specific options. The college also offers two interdepartmental majors. Selecting a major means choosing one option in one department. Although a student may satisfy the requirements of more than one major option, he or she is officially certified to graduate under only one. (The college urges students who satisfy more than one major or option to make note of this in the credentials they file in the university's Career Center and to seek recommendations from faculty associated with the options completed.) Majors include the following options.

Consumer Economics and Housing (CEH):

The department supervises the department major and the policy analysis major.

Design and Environmental Analysis (DEA):

Interior design, facility planning and management, human environment relations.

Human Development and Family Studies (HDFS):

Does not have separate options. Courses focus on cognitive, social, and personality development; phases of development; and family studies and life course. The department administers an honors program for selected students.

Human Service Studies (HSS):

Does not have separate options. Courses focus on three content clusters: human service environments, programs, and processes. A professional internship and senior seminar are required. Students may meet the requirements of an accredited bachelor's degree program in social work.

Nutritional Sciences (NS): The division supervises the department major. (By careful planning, students may also meet the minimum academic requirements of The American Dietetic Association.) The division administers an honors program for selected students.

Textiles and Apparel (TXA): Apparel design, apparel-textile management, fiber science.

Interdepartmental Major in Biology and Society (ID-BS).

Interdepartmental Major in Policy Analysis (ID-PA).

Individual Curriculum: It is possible to develop an individual program of study if none of the above programs fits particular educational and career objectives.

Changing Majors

Because any student's interests and goals may change as new options emerge, the college provides ways for students to change their majors. It is important for a student to discuss a possible change of major with her or his faculty adviser or counselor. If the student decides to make a change, a completed change-of-major form (available from the Office of Student Services, N101 Martha Van Rensselaer Hall) will officially record the change so that a new adviser can be assigned to the student.

Students of Mature Status

The college recognizes that students who interrupted their formal education and are returning to school have needs different from those of younger undergraduates. To facilitate the education of mature students, defined as those twenty-four years old or older at first matriculation, the college has adopted certain procedures specifically for that group. The counselor for mature students in the Office of Student Services (N101 MVR) can provide information of interest to mature students.

Mature students are permitted to enroll for as few as 6 credits without petitioning for permission and are also permitted to extend their residency beyond the normal eight terms.

It is highly recommended that mature students contact the director of the Continuing Education Information Service, B20 Day Hall, for information on resources available through that office.

Special Students

Students eligible for special status are those visiting from other institutions and interested in particular programs in the college; those with a bachelor's degree preparing for graduate study or jobs and careers in human ecology-related fields; or those who have interrupted their education and are considering completing degree programs. Students accepted in the non-degree status of special student may enroll for a maximum of two semesters. During the second semester of attendance, a special student must either apply for admission as a transfer student or plan to terminate studies in the college at the end of the semester.

Special students are expected to take a minimum of 12 credits each semester and to take one-half to two-thirds of their work in the state divisions of the university. Work taken while a person is classified as a special student may be counted toward the requirements of the bachelor's degree.

Empire State Students

Occasionally a student who is completing requirements for a degree through the Empire State College Program is interested in taking a human ecology course. This can be done by registering through the Division of Summer

Session, Extramural Study, and Related Programs, B20 Day Hall. All rules of the extramural division apply, and registrations will be accepted only on a space-available basis and with the written approval of the course instructor.

At the time of registration, Empire State College students provide the extramural division with a completed copy of Empire State College's notification of cross-registration form number, SA-22, F-031, to verify enrollment in Empire State College. Such students will be charged 25 percent of the standard extramural tuition per credit.

CONSUMER ECONOMICS AND HOUSING

The behavior of people as consumers and family members and their interactions with private markets and public sectors of the economy are increasingly important as the economy becomes more service-based. One result has been an increasing demand from business and government for trained individuals who understand consumers, families, the markets in which they deal, and how public policies affect the markets and through them consumers and families. The demand has been sufficient to elevate salaries for well-trained individuals.

The consumer economics and housing major provides such training. The major combines economics with statistics, sociology, and family resource management to study how consumer markets work, how firms and consumers behave, the role governments play in consumer protection, how functions shift between households and markets as prices, incomes, social values, and legislation change, and how changes in the family affect consumer markets. Students interact with the faculty and with each other both in the classroom and in field-based learning experiences in the Ithaca area, New York City, Washington, or abroad.

Graduates in consumer economics and housing are prepared for a wide variety of consumer- and family-related positions in business and government. The major also provides an excellent foundation for further studies in economics, law, graduate business, and policy analysis.

The consumer economics and housing major is flexible. Students are assigned a faculty adviser by the advising coordinator unless the student wants a particular adviser. The earlier the decision to major in CEH is made, the greater the freedom to develop a program to meet individual educational or career goals. Transfer students are urged to discuss their plans with a faculty adviser as soon as possible. Students may make an appointment directly with an adviser or with the advising coordinator, Alan Mathias, 120e Martha Van Rensselaer Hall.

DESIGN AND ENVIRONMENTAL ANALYSIS

The Department of Design and Environmental Analysis (DEA) is concerned with planning, designing, and managing interior environments to satisfy human needs. Most people

spend over 90 percent of their lives inside buildings. Those settings have substantial and far-reaching effects on the quality of our lives. The processes for creating and maintaining the built environment face enormous challenges. These include frequent social and organizational change, technological advances, new building methods, and finite resources. The program in DEA is dedicated to preparing professionals who can meet these challenges.

Diverse faculty backgrounds and teaching approaches help students to develop their multidisciplinary problem-solving and creative abilities, aesthetic judgment, and analytical thinking. Excellent laboratory, shop, studio, and computer facilities permit exploration of innovative concepts for the design and management of interior environments. The relationship between people and their physical surroundings is explored through a combination of academic courses, field experience, and applied research. Examples of student class projects and faculty work are frequently on display in the department's gallery. The DEA Resource Center includes books, journals, newsletters, and materials samples for student use.

Options

The department offers undergraduate education in three professional areas: interior design, facility planning and management, and human-environment relations. The interior design option is accredited by the Foundation for Interior Design Education Research (FIDER).

To take full advantage of the course sequences and electives, it is important to select an option as early as possible. This is particularly true in the interior design option. Transfer students in the interior design option may need one or two extra semesters to complete the program.

Option I: Interior Design

The interior design option prepares students for professional careers in the planning and design of interior spaces and associated products. The program emphasizes a problem-solving approach based upon knowledge of buildings and their associated systems, furnishings and interior products, human-environment relations, and design principles. Some students combine this program with one of the other options.

Careers are available in interior design and space planning, interior architecture, facility planning, interior product design, and housing. This program also serves as an excellent preparation for graduate study in interior design, facility management, architecture, and product design.

Option II: Facility Planning and Management

This option is designed to prepare students for professional careers in facility management. The program focuses on the planning, design, and management of facilities for large, complex organizations such as corporations, health-care institutions, research and development laboratories, and universities. Facility planning and management is a basic management function that coordinates and integrates information and expertise from areas such as planning and design, real estate and business administration with human factors, ergonomics, environmental psychol-

ogy, telecommunications, and building operations for the purpose of developing and managing facilities that support individual and organizational effectiveness.

Excellent career opportunities exist in the facility management divisions of private companies, institutions, the health-care industry, and with private consulting firms offering facility management services. The program is also a good preparation for graduate study in business, planning, or one of the design disciplines and for advanced study in facility planning and management.

Option III: Human-Environment Relations

Human-environment relations focuses on the interaction between people and their physical surroundings. This option seeks to expand understanding of how the environment affects human perception, cognition, motivation, performance, health, safety, and social behavior, and to use that knowledge to help architects, planners, interior designers and product designers to plan, design, and manage safe and effective environments. The effect of human capabilities or characteristics such as family structure, life-style, social class, and stage in life cycle on environmental needs and requirements is also a focus of the program. Career opportunities are available in design firms and in urban planning and other public agencies as well as in the facility management and product design division of private companies. Human-environment relations is good preparation for graduate study leading to a Ph.D. degree in the social sciences and a career in academic or other research-oriented settings in either the public or private sector. It can also serve as the basis for graduate study in an environmental planning or design discipline such as architecture, facility planning and management, interior design, landscape architecture, or city and regional planning. Electives in the social sciences and in research methods and statistics are encouraged.

Academic Advising

All DEA majors are matched with a faculty adviser during their first semester by advising coordinator Michael Boyd, in E206 Martha Van Rensselaer Hall.

Consultation with faculty advisers about future goals, departmental requirements, sequences of courses, and electives inside or outside the college to meet special needs helps students develop their programs. Students majoring in interior design, especially, must begin early to plan and collect materials for a portfolio of their work, which is necessary for many positions and for application to graduate schools. Faculty advisers can make recommendations on what to include. Students are free to change advisers. Although advisers must sign the schedule card during course enrollment each term, it is the student's responsibility to keep track of his or her courses and to make sure that the program meets graduation requirements for the major and the college.

Ownership and Exhibition of Student Work

All design work done in studios as part of an academic program is the property of the department until it has been released by the instructor. The department is not responsible for loss or theft of student work.

HUMAN DEVELOPMENT AND FAMILY STUDIES

The programs of the Department of Human Development and Family Studies (HDFS) are concerned with how people develop throughout the life course. Of equal interest is the family as a context for individual development and as a part of the larger structure of society. An ecological perspective—the person in interaction with complex biological, situational, and environmental conditions of everyday life—is featured in many departmental courses.

Major social science disciplines concerned with the development of individuals and with the structure and function of families are represented among faculty members with backgrounds in psychology, sociology, history, and education. The department's programs of instruction, extension, and research provide diverse opportunities for students to prepare for career development or to acquire the bases for graduate study. Many of the department's majors are interested in clinical psychology, counseling, law, medicine, special education, or university teaching and research that require some graduate study. Others may go directly into employment in business or industry or take bachelor's-level positions such as youth counselors, day-care workers, personnel assistants, research technicians, and social program assistants.

Academic Advising

Every HDFS major is assigned a faculty adviser in the department, and advising conferences are required at least twice a year. An adviser helps plan the course work and consults with the student about career options. The adviser can also help students find special opportunities for individual study or for experience outside the classroom. Although advisers must distribute pin numbers, it is the student's responsibility to keep track of his or her courses and to make sure that the program meets graduation requirements for the major and the college. Students who need an adviser or who want to change advisers for any reason should check with the undergraduate advising coordinator, Joan Brumberg, or the department office, in NG14 Martha Van Rensselaer Hall.

Curriculum

HDFS majors usually combine a broad liberal education with a more specialized focus on either a problem of human concern or a substantive area of concentration. Areas of specialization available within HDFS include infant, child, adolescent, and adult development; abnormal development; family studies; and social-personality and cognitive development. Some students combine an HDFS major with premedical or prelaw training or with specialized work in an area outside the department, such as communication arts, nutrition, business, or government.

During their first two years, students are expected to combine a variety of liberal arts courses with HDFS core courses HDFS 115 (Human Development); HDFS 150 (Families and the Life Course); and intermediate courses in phases of development, cognition, or social-personality. This encourages diversity yet ensures a common base for upper-level courses in the major. Courses within the

department vary from lectures and discussions to research and independent study.

All students are encouraged to participate in an experiential learning course in their particular area of interest. The course may focus on a naturalistic or laboratory setting (e.g., nursery school, youth detention center, retirement home) or on a research setting (e.g., interviewing, administering tests, observing behavior).

An HDFS major also takes a number of upper-level departmental courses in particular areas as described in the Student Guide. Additional information is available in the HDFS Office of Undergraduate Education, NG14 Martha Van Rensselaer Hall.

Math Requirement

HDFS majors are required to fulfill a math requirement by passing Education 115 or demonstrating equivalent competency by scoring 650 or higher on the math SAT examination.

Teaching Certification Option

The cooperative Cornell HDFS-State University College at Cortland education program is designed to meet New York State certification requirements for teaching grades N-6 while simultaneously earning the Cornell bachelor's degree in HDFS. The program requires that the student spend three years at Cornell and the senior year and part of two summers registered in absentia at SUC Cortland. Students keep their Ithaca housing, since Cortland is just 18 miles away and the one-semester teaching internship is based in Ithaca.

This highly selective undergraduate program offers an alternative to the option of seeking a master's degree in education after the undergraduate studies at Cornell have been completed. Students interested in the program should discuss the merits of each option with the Coordinator of Undergraduate Education in NG09 MVR.

Course work at Cornell must be carefully planned. Elective options will be somewhat limited because it will be necessary to consider the twenty-seven Cortland credits plus three education courses at Cornell as electives. The teaching certification program is not an option for external transfers entering as late as upper sophomore or junior year. More information is available in the HDFS Office, NG14 Martha Van Rensselaer Hall.

Honors Program

The honors program leading to a Bachelor of Science degree with honors in HDFS is designed to provide in-depth research experience for students interested in graduate school and to challenge students who enjoy research. Interested students should consult the coordinator of the honors program during their sophomore year.

A grade-point average of 3.3 is required for entry into the program. Honors students must take an approved course in research design, preferably in the sophomore or junior year.

Students spend part of their junior and senior year working on a thesis under faculty supervision, completing the project before April 15 of the senior year when the student's oral examination is held. More information is available in the department's Office of

Undergraduate Education, NG14 Martha Van Rensselaer Hall.

Language Competency

The HDFS faculty believe that competence in a foreign language is an essential liberal arts goal for the educated HDFS student. Such exposure opens another culture for exploration at both the instrumental and expressive levels, helps students understand language itself, and encourages knowledge of language as a fundamental intellectual tool and as an essential communicative asset with potential applied benefits. While this is not a graduation requirement, it is strongly recommended that HDFS majors develop competency in a second language.

The following departments teach foreign languages or literature or both in the College of Art and Sciences: Africana Studies and Research Center, Asian Studies, Classics, German Literature, Modern Languages and Linguistics, Near Eastern Studies, Romance Studies, and Russian Literature.

Work toward foreign language competency should be undertaken in the freshman and sophomore years. Please note that high school or transferred language courses can be used for advanced standing credit, even if the student does not want to do any further language work at Cornell.

Speakers of languages other than English may be awarded credit for their bilingual ability. Their English achievement is measured by the Test of English as a Foreign Language (TOEFL), a requirement for matriculation. Their performance in one other language learned outside the academic environment is measured by examination, and evidence of abilities in reading and writing, as well as speaking, is required. A maximum of 6 advanced placement credits are granted to students who demonstrate PROFICIENCY equivalent to course work at the 200 level or above at Cornell. Students may not earn credit both for PROFICIENCY in their native language and for studying English as a second language at Cornell.

Language Course Placement and Credit

Students who have had two or more years of high school study in a language may not register in any course in that language without being placed by examination. Nor may transfer students register without examination, even though they may have been given credit for language work elsewhere.

The type of examination depends on the language course and the level of achievement:

- 1) French, German, Italian, Russian, and Spanish courses: the standardized College Placement Test (CPT). Entering students who have not taken the CPT in high school and who want to continue their language study must take the CPT at Cornell during orientation week. Students may retake this examination at Cornell if they have studied the language a year or more since last taking the test. To do this, students register with the Academic and Career Counseling services, 203 Barnes Hall, and pay a fee.
- 2) Latin (all courses except 105 and 107): departmental examination.
- 3) Greek (all courses except 101, 104, and 111): departmental examination.

- 4) Arabic: departmental examination.
- 5) Hebrew: departmental examination.
- 6) Other languages: special examinations: see the professor in charge.
- 7) High achievement (students with a CPT score of 650 or better in French, German, Hebrew, Italian, Russian, and Spanish): the Cornell Advanced Standing Examination (CASE).

An entering or continuing student with high achievement scores should take the Cornell Advanced Standing Examination (CASE).

See section on College of Arts and Sciences, Language Requirement, for further information.

HUMAN SERVICE STUDIES

Faculty in the Department of Human Service Studies (HSS) prepare students for a variety of careers in programs that serve individuals, families, and the community. HSS graduates work in schools, social services, Cornell Cooperative Extension, health and mental health programs, and community development agencies.

They are employed in such positions as counselors, school teachers, social workers, community educators, planners, and researchers. Many HSS graduates pursue graduate study in law, education, medicine, social work, health, and a variety of social sciences. HSS majors come from diverse backgrounds, but they share a common goal of wanting to serve the needs of others.

HSS is unique in that it integrates a broad spectrum of courses offered by several departments and colleges and focuses them for professional practice in the human services. All HSS students take courses that provide a knowledge base in three content clusters:

1. Human service environments – course choices provide students with knowledge about the working context within which the human service provider functions, including a base in social psychology, group and organizational behavior, social system perspectives, power and leadership.
2. Human service programs – courses for this requirement are selected to provide the student an introduction to historical and current program models, barriers to service delivery, developments in health, education and social welfare—all in the context of both the client and the work done by the human service professional.
3. Human service processes – courses for this requirement are designed to provide students with methods to work effectively in human service programs and environments. Courses include planning and development content, program delivery modes, decision-making processes, basic social planning methods, and program evaluation.

All students take a professional internship and an integrative senior seminar. Regardless of their specific career goals, students acquire a broad understanding of human services and the ways they can collaborate to improve the

human condition. In addition, students specialize in an area of concentration such as health, education, social welfare, policy, planning, or evaluation.

Academic Advising

It is important for a student who is interested in majoring in Human Service Studies to declare that major as early as possible. Once that is done, students work with their assigned faculty advisers to plan course work and related educational activities. Students are free to change advisers. Although faculty advisers must sign the schedule card during course enrollment each term, it is the student's responsibility to keep track of courses and make sure that the program meets graduation requirements of the major and the college. Students may make an appointment with an adviser or with the undergraduate advising coordinator, Don Tobias, in 183 Martha Van Rensselaer Hall.

Social Work Program

The undergraduate social work major at Cornell has as its principal educational objective the preparation of students for beginning professional social work practice. In addition, the major prepares students for graduate education in social work and contributes to the enrichment of a college education by helping students understand social welfare needs, services, and issues.

The social work program is accredited by the Council on Social Work Education. Students who complete all requirements are eligible to apply for beginning-level employment as professional social workers or to apply for advanced standing in a graduate school of social work.

TEXTILES AND APPAREL

The Department of Textiles and Apparel (TXA) focuses on the use of textiles and fibrous materials for apparel, durable and nondurable household goods, composites, geotechnical, and biomedical applications. Programs in the department, in keeping with the overall mission of the college, emphasize the use of materials to meet human needs. The curriculum includes the application of design principles, physical and materials science, economics and marketing, government policy/regulation, management of products and their delivery, and technological developments.

Practical problem-solving skills are developed in the department's laboratories and studios. Academic course work is further enhanced by field and international experiences. Gallery space provides the setting to display design work. In addition, the Cornell University Costume Collection, housed in the department, provides a valuable resource; items from the collection are made available to students for classroom and special-study use.

Academic Advising

All TXA majors are matched with a faculty adviser by the advising coordinator, Peter Schwartz (201 Martha Van Rensselaer Hall). Students are strongly urged to discuss their goals, course selection and sequence, electives, and career plans with their faculty

adviser. Students in apparel design must begin early to work with their advisers to develop a professional portfolio of their work. Students are free to change advisers; changes must be recorded with the advising coordinator. Although advisers must sign the schedule card during course enrollment each term, it is the student's responsibility to keep track of his or her courses and to make sure that the program meets graduation requirements for the major and the college.

Ownership and Exhibition of Student Work

All apparel design work done as part of the academic program is the property of the department until it has been released by the instructor. Certain exceptional work may be retained by the department to exhibit for academic purposes. The department is not responsible for loss or theft of student work.

Course Fees

No grade will be given in a course unless the course fee has been paid by the last week of classes.

Key Policy for Apparel Design Studios

To allow design students access to studios for out-of-class work at any hour in which Van Rensselaer Hall is open, and to provide security for the studios, the department has instituted a key policy. Each student in TXA 040, 145, 264, 367, 375, 425, 446, and 465 who submits a security deposit of \$50 will be given a key to the studio in which his or her class is held. In the event that *any* key is lost, the studio will be rekeyed, and the cost will come from the security deposit of the student who lost the key. At the end of each semester, the studio will be assessed for missing and damaged equipment. The total amount assessed will be deducted from the security deposits of all students assigned to that studio. If all keys are returned and no damage or theft is reported, the security deposits will be returned at the end of the semester. Students who do not wish to work in the studio outside of class hours may elect not to have a key and therefore will not be required to submit a security deposit. Under no circumstances will these students be admitted to the studio outside of class hours.

Options

Students may select options in apparel design, apparel-textile management, or fiber science. The curriculum is based on manipulation of form, color, and the physical characteristics and structures of fabric to solve functional and aesthetic apparel problems; the application of economic and marketing principles to consumer and industry problems in the textile-apparel sector; and the study of chemical, physical, and engineering properties of fibrous structures and polymers. Depending on previous course work, transfer students may need one or two extra semesters to fulfill the requirements of the major.

Option I: Apparel Design

The study of apparel design includes both functional and aesthetic considerations in the design of body coverings. The program emphasizes a problem-solving approach that enables the student to bring a background in apparel, textiles, and human factors to the design process.

Option II: Apparel-Textile Management

Apparel and textile management combines the fields of apparel and textiles with those of economics, business management, and organizational policy. Students combine theory with case studies to find solutions to everyday problems. Course work is drawn from many interrelated disciplines, including textiles, apparel, economics, business management, and communication, as well as practical field experiences. This provides students with the experience of working with professionals from a wide variety of disciplines. Students often combine this option with either Option I (Apparel Design) or III (Fiber Science).

Option III: Fiber Science

Applications for textile structures include advanced engineering composites, protective clothing for industrial and military environments, and biomedical materials, as well as the more traditional applications found in apparel and home furnishings. The fiber science option provides a strong base in mathematics and the physical sciences combined with supporting courses in engineering, consumer economics, and the social sciences.

Career Opportunities

Graduates of programs in the Department of Textiles and Apparel have found challenging employment within the textile and apparel sector, in independent and government-sponsored research, and in community organizations. Recent graduates are working in the fields of new product development, design, management, engineering, communications, and marketing. In addition, the program prepares students for graduate or professional study in fiber and polymer science, textile marketing, apparel design, textiles, or business and management.

INTERDEPARTMENTAL MAJOR IN BIOLOGY AND SOCIETY

Biology and society is a multidisciplinary program for students with special interests in such problems as genetic engineering, environmental quality, food and population, the right to medical care, and the relation between biology, society, and ethics and/or public policy, as well as for students who plan postgraduate study in management, health, medicine, law, or other related fields.

Because the biology and society major is multidisciplinary, students must attain a basic understanding of each of the several disciplines it comprises, by including introductory courses in the fields of biochemistry, chemistry, mathematics, genetics, ecology, ethics, and history. In addition, majors are required to take core courses in biology and society, a set of electives, and a special senior seminar.

Course work in the College of Human Ecology must be taken in two of the following three concentrations: human development and the environment, health, or social policy and human services. The other basic requirements of the college must also be met. Programs incorporating those required courses are designed in consultation with a faculty adviser to accommodate each student's

individual goals and interests. For further information on the major, including courses of related interest, specific course requirements, and application procedures, see the Human Ecology Student Guide, available in the Office of Student Services, N101 Martha Van Rensselaer Hall. Academic advising is coordinated by S. Kay Obendorf, 208 Martha Van Rensselaer Hall.

INTERDEPARTMENTAL MAJOR IN POLICY ANALYSIS

As our economy has become more complex, so too has the role of the public sector in our society. An understanding of governmental processes and of how public policies affect the several segments of society has become more important. Individuals with the ability to evaluate government programs critically and trace their impacts quantitatively to consumers, families, business, and industry are in demand at all levels of government and business. Supervised by the Department of Consumer Economics and Housing, the policy analysis major uses the resources of the college and the university to trace and estimate government's influence in the economy.

In the policy analysis major, the student gains a basic understanding of the role of government in the economy and the political environment in which policy is made. Students concentrate on learning the economic, cost/benefit, and statistical skills necessary to evaluate the performance of government programs and policies—consumer policy, housing policy, welfare policy, environmental policy, foreign policy, for example. Because experience in legislative, regulatory, and public administration activities is helpful in providing the context for policy analysis, involvement in Field and International Study, Cornell-in-Washington, and Cornell Abroad is encouraged. The specific requirements for policy analysis are listed under the interdepartmental majors.

Graduates in policy analysis are attractive to business and industry as well as to government because of their analytical skills in economics and statistics, and their knowledge of political processes. Students also use the major for further work in policy studies, law, and business administration.

The policy analysis major is flexible and allows individual program planning. The faculty adviser assigned by the undergraduate advising coordinator can help develop a program to meet individual educational and career goals. This is particularly important in constructing the appropriate policy concentrations. Transfer students are urged to contact their faculty adviser as soon as possible. An appointment may be made directly to talk either with an adviser or with the advising coordinator, Jennifer Gerner, 132 Martha Van Rensselaer Hall.

INDIVIDUAL CURRICULUM

A student who has educational and professional objectives that cannot be met satisfactorily within the framework of existing majors in the College of Human Ecology may petition to develop an individual curriculum. To be

approved, the curriculum must be within the focus of the college and be interdisciplinary in design, include at least 40 credits in human ecology courses, and not exceed the normal number of credits allowed in the endowed divisions. A student develops an individual curriculum in consultation with faculty advisers from at least two subject-matter fields and the program coordinator.

Such a program of study should encompass a substantial part of the student's undergraduate education and must include at least three semesters. For this reason, a request to follow an individual curriculum should be made as early as possible and must be made before the second semester of the junior year.

If an individual curriculum seems advisable, Patti Papapietro, the individual curriculum coordinator in the Office of Student Services, N101 MVR, will provide direction in formally developing a program of study. Although the individual curriculum coordinator must sign the course enrollment schedule during course enrollment each term, it is a student's responsibility to follow the curriculum as planned or to have any necessary revision approved in writing by his or her advisers and the program coordinator in advance of the program change.

SPECIAL OPPORTUNITIES

Several programs allow students to receive academic credit for fieldwork and internship experience, study abroad, study in absentia, college-wide certificate programs, and joint programs with other schools and colleges at Cornell. Students may petition the college registrar to have concentrations that are formally recognized elsewhere within the university noted on their transcripts, when accompanied by appropriate documentation from the program.

International Study

Study abroad allows students to focus on international issues and intercultural understanding through sponsored programs of study abroad for which academic credit is available. Course work in a foreign institution will, in general, be planned to increase knowledge of the people and institutions of the country concerned; fieldwork may provide guided experience in family, community, or agency situations of the country concerned and in an area related to individual student interest in human ecology.

Opportunities for study abroad are available for human ecology students in several ways: through Cornell Abroad, through U.S. college-sponsored programs abroad, and through direct enrollment in a foreign university. In all cases, students remain registered at Cornell during the overseas study, and their study abroad will be credited as part of their Cornell degree program. Application packets for study abroad can be obtained from and should be submitted to the study-abroad adviser in the Office of Student Services, N101 Martha Van Rensselaer Hall. The Student Resource Center, N139 Martha Van Rensselaer Hall, has catalogs and other information about study abroad opportunities. The study abroad adviser is Mary Rhodes, N101 Martha Van Rensselaer Hall.

Field Study, Internships, and Research Opportunities

Field study, internships, and research opportunities allow students to receive academic credit for work that extends and complements their course of study. Through structured experiences facilitated by faculty members, students learn to test, deepen, and apply what they've learned in the classroom.

Students strengthen their ability to integrate theory and practice and learn to reflect critically on their experience while broadening their understanding of service and professional life and enhancing their understanding of diversity and complex societal issues. In existing courses and through individual and group projects, students develop an intellectual framework for understanding and solving problems in a variety of challenging settings.

Placement opportunities are available in business, health, law, medicine, environmental analysis, education, nutrition, government, laboratories, textiles and apparel, design, social service and community settings. Students are encouraged to plan early for these opportunities.

To learn more, students should consult with their faculty adviser, professor, or undergraduate advising coordinator. They can also visit the Student Resource Center in N-139 MVR and explore listings of opportunities on the "Human Ecology Field Study Computer Program" available on Bear Access. New initiatives are encouraged. For further information, contact Debra Dyason, Field Study Coordinator, N-137 MVR.

Cornell in New York City The Urban Semester Program in Multicultural Dynamics in Urban Affairs

Cornell in New York City provides students with many study options that focus on multicultural dynamics in urban affairs. Experiential learning practices inform all courses of study. The options available include internships, individual and group community service projects, research, independent study, collaborative learning, and mentorships. Students learn by doing and through reflection and action. Program options are possible throughout the academic year, during winter break, and in the summer.

Courses of study enable students to seek out the relationship between theory and practice, apply theory to practice, acquire professional practice skills, and learn about the impact of diversity on New York City. By applying ethnographic research techniques and methods, students learn to think conceptually, reflect on their actions, and learn how to be agents of change.

Several majors in the college require internships or encourage field study. Check with the advising coordinator of each major for more information. The Student Resource Center in N-139 MVR and the Field Study Coordinator in N-137 MVR can help you find internships and provide more information on department opportunities and enrolling in Cornell in New York City.

The Urban Semester Program in Multicultural Dynamics in Urban Affairs

Fall and spring semesters: HE 408

During the fall and spring semesters, students focus on multicultural issues in urban affairs. Each term, course work in two separate seminars investigates multicultural dynamics in professional, community, or public policy settings. Students study the possibilities and barriers that a multicultural society presents and their relationship to professional practice, culture, and identity.

Students intern in placements of their own choosing and use internship sites to study multicultural issues and dynamics. A list of recent placements follows. Students may choose to participate in Dr. Sam Beck's South Bronx-Banana Kelly/Cornell University project in Community Building instead of an internship placement. Other options also are available.

The Winter Intersession in Community Service and Mutual Learning: The South Bronx-Banana Kelly/Cornell University Project in Community Building

Winter intersession: HE 402

Over the course of two intensive weeks, students participate in an ongoing community service project in the South Bronx. In carrying out community service, students participate in a research project with the director of the Cornell in New York City program. In the 1995 intersession, six students mentored 12 children in an after-school program by documenting the community with photographs and stories. A photography exhibit was produced that is presently circulating. Other projects with Banana Kelly are available to students throughout the year. Please contact Dr. Sam Beck in the Cornell in New York City program office.

Fieldwork in Diversity and Professional Practice

Summer session: HE 406

Over the course of an eight-week summer session, students carry out research projects on the multicultural dynamics of professional practice by interning full time in settings of their choice. Students meet weekly for three hours and discuss professional practice with New York City practitioners. A reflective seminar, led by Dr. Sam Beck, director of the Cornell in New York City program, follows each discussion.

Gerontology Concentration

Gerontology Certificate Program

This program develops students' understanding of and competence in dealing with the processes and issues of aging. Study in gerontology provides practical experience and preparation for professional work. Students draw on resources of several departments and colleges at Cornell and Ithaca College to shape a curriculum suited to their professional goals and interests. Contact the Gerontology Coordinator, Life Course Institute, 259 Martha Van Rensselaer Hall.

Teacher Certification in Home Economics

Students can combine any major in the college with additional course work that leads to home economics teacher certification (kindergarten through twelfth grade) in New York State and a number of other states. Interested students should contact the Office of Student Services in N101 Martha Van Rensselaer Hall.

University Programs

Africana Studies and Research Center

Courses taken in the Africana Studies and Research Center (ASRC) may be used to meet some of the distribution requirements of the college. Up to two courses or 8 credits of such courses may be applied toward the 12 additional credits in natural and social sciences (section I-C of the graduation requirements) or toward the 9 additional credits in communication, analysis, and the humanities (section II-B). This allowance is in addition to the freshman writing seminar credits that may be taken in ASRC. Other courses taken in the center count as endowed division electives (area IV).

Double-Registration Programs

Johnson Graduate School of Management

A limited number of highly qualified students from Cornell undergraduate divisions, including human ecology, may be accepted by the Johnson Graduate School of Management after the junior year. Students need the approval of the admissions office and the registrar in the College of Human Ecology. Accepted students should be aware that if the management course work taken in the senior year is in excess of the 21 additional credits allowed in the Cornell endowed divisions, they will be charged for the additional credits on a per-credit basis. Students entering this program must also complete requirements for the degree and major in Human Ecology.

Law School

A small number of highly qualified applicants may be admitted to the Cornell Law School after only three years of undergraduate education. The requirements for admission under these circumstances are more stringent than for acceptance after four years of undergraduate study. Applicants must present outstanding qualifications and strong professional motivation. The junior-year applicant follows the ordinary application procedures for Cornell Law School admission. Interested students should contact the Law School director of admissions to discuss the extraordinary admissions criteria. Because students accepted to this program will spend their senior year in the Cornell Law School, they need to plan ahead to ensure that distribution requirements for the B.S. degree from the College of Human Ecology will be met. Successful applicants need the approval of the college registrar.

Cornell Medical College

A limited number of highly qualified students from three Cornell divisions, including the College of Human Ecology, may be accepted by the Cornell Medical College after the junior year. To be considered for this program, the student must have completed 105 credits toward graduation by the end of the junior

year. Students also need to plan ahead to ensure that distribution requirements for the bachelor of science degree will be met. Accepted students receive 15 credits toward the B.S. degree from their first year of study at the College of Medicine. Interested students should contact the Health Careers Program office in 103 Barnes Hall.

Off-Campus Programs

New York State Assembly Internships

A limited number of session internships with the New York State Assembly are available in spring semester. Intern applicants must be sophomores or higher and enrolled in New York State colleges or universities. Human ecology students apply to the program through the student's major department. The New York State Assembly also sponsors a summer internship. Further information about internship programs may be obtained through the Office of Student Services, N101 Martha Van Rensselaer Hall.

Cornell-in-Washington

For information on Cornell-in-Washington, see the section, Interdisciplinary Centers, Programs, and Studies, in the front of the catalog.

Ithaca College

Full-time undergraduate students at Cornell may petition to enroll in courses at Ithaca College. Students pay regular tuition to Cornell and only special fees to Ithaca College, if any are charged. Students are allowed to register for one course a term and may take no more than 12 credits in four years. Exceptions will be granted to Cornell students enrolled in methods and practice-teaching courses at Ithaca College.

Cornell students are eligible to register only in Ithaca College courses that are relevant to their program and that do not duplicate Cornell courses. Acceptance of Cornell students into Ithaca College courses is on a space-available basis. Participation in this program is not guaranteed, and Ithaca College has the right to accept or reject students for any reason it deems appropriate. The program is available only during the fall and spring semesters.

For further information students should contact the college registrar, N101 Martha Van Rensselaer Hall.

Wells College

Full-time undergraduate students at Cornell may petition to enroll in courses at Wells College. Students pay regular tuition to Cornell and only special fees to Wells College, if any are charged. Students are allowed to register for one course a term and may take no more than 12 credits in four years. Exceptions will be granted to Cornell students enrolled in methods and practice-teaching courses at Wells College.

Cornell students are eligible to register only in Wells College courses that are relevant to their program and that do not duplicate Cornell courses. Acceptance of Cornell students into Wells College courses is on a space-available basis. Participation in this program is not guaranteed, and Wells College has the right to accept or reject students for any reason it deems appropriate. The program is available only during the fall and spring semesters.

For further information students should contact the college registrar, N101 Martha Van Rensselaer Hall.

PLANNING A PROGRAM OF STUDY

Academic Advising

Students who choose to major in a particular department are assigned to a faculty adviser by that department's advising coordinator. The advising coordinator can help match a student's needs with the special interests of a faculty member. Students may change advisers as their own interests change and should see the advising coordinator to discuss such a change. Faculty advisers, and counselors in the Office of Student Services (N101 Martha Van Rensselaer Hall), are available to discuss course requirements and sequences, and electives inside or outside the college, as well as future goals and career opportunities. Although advisers must sign the course enrollment schedule card during course enrollment each term, it is the student's responsibility to make sure that her or his program meets graduation requirements for the major and the college. Advising coordinators in each department are available to answer questions about the advising system and the undergraduate major. Students who are exploring alternative majors should work closely with college counselors who are available for planning and referral to department resource faculty.

Completing Graduation Requirements

A summary of record is kept for each student in the Office of Student Services, N101 Martha Van Rensselaer Hall. At fall registration each continuing student receives a copy showing which major and graduation requirements have already been met. It is important to check this summary and to bring any questions to the attention of staff members in the Office of Student Services. Although a student may complete the requirements of more than one major, he or she is officially certified to graduate under only one.

Electives

Students have individual objectives in choosing courses beyond the minimum requirements of the major. The university is diverse; the departments, centers, and special programs numerous; the fields of study almost unlimited. Counselors and department advisers are available to discuss which courses may interest students and round out their educations.

Students should consult the index of this Announcement for information on where different subjects are taught in the university. Some subjects are taught in more than one division of the university.

Foreign Language Study and Placement

Students who studied a foreign language before coming to Cornell and who want to continue must take either the College Entrance Examination Board (CEEB) achievement test in that language or a departmental language placement test. The latter is given during orientation week in September and again in December, January, and May. Students in human ecology who plan to work

with non-English-speaking people in this country or abroad often find it necessary to be proficient in another language. Students who wish to study abroad may find that many study-abroad programs in non-English-speaking countries require the equivalent of two years of college-level language study. For more detailed information, see the section "Advanced Placement of Freshmen."

GRADUATION REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

General

Students applying as undergraduates who do not have the required academic unit in biology, chemistry, or physics are required to show evidence of having met this deficiency before matriculation in the college.

Freshmen and sophomores are required to enroll in at least one human ecology course per semester.

To graduate, students need to

- 1) meet college credit and distribution requirements,
- 2) complete requirements for a major,
- 3) achieve a cumulative average of 1.7 (C-) or better,
- 4) fulfill residency requirements, and
- 5) complete two terms of physical education within the first two semesters.

College Requirements

These are the general areas of study and specific courses and credits required of every student in the college. The major you choose may require specific courses listed below or may leave you free to choose among certain courses listed there.

I. Natural and Social Sciences (24 credits)

- A. Natural sciences** (6 credits) selected from Biological Sciences 101-103, 102-104, 105-106, 109-110; Chemistry 103-104, 207-208, 215-216; and Physics 101-102, 112, 201 or 202, 207-208. Biological sciences courses must be taken sequentially.
- B. Social sciences** (6 credits) selected from economics (including CEH 110, 111 but excluding Agricultural Economics 221 and 310); psychology (including Education 110, 311, 317; DEA 150; HDFS 115, 216, 217, 218, 219); sociology (including rural sociology, CEH 148, and HDFS 150). *Do not take both Economics 101 and CEH 110; Economics 102 and CEH 111; Psychology 275 and HDFS 360; Rural Sociology 101 and Sociology 101; or Sociology 243 and HDFS 150; they are equivalent courses.*
- C. Additional credits** (12 credits) selected from any subjects listed above or from courses in anthropology (except archaeology); Astronomy 101 or 102; biochemistry; microbiology; genetics and development; Geological Sciences 101; and government.

II. Communication, Analysis, and the Humanities (15 credits)

- A. Freshman writing seminars** (6 credits) selected from courses listed in the freshman writing seminar brochure.
- B. Additional credits** (9 credits) selected from art; communication; comparative literature; computer science; drawing; English; ancient or modern foreign languages; history; history of art; history of architecture; mathematics; music; Natural Resources 407; philosophy; statistics (students *should not take both* Industrial and Labor Relations 210 and Agricultural Economics 310, since the courses are substantially the same); theatre arts; DEA 101, 111, or 115; HSS 292; TXA 117, 125, 375; and selected ASRC courses (list available in the Office of Student Services, N101 Martha Van Rensselaer Hall).

III. Human Ecology (40 credits)

- A. Requirements for the major** (the number of credits required varies by major and option).
- B. Other credits in Human Ecology (15)**
The following specific qualifications apply:
 - No credit for HE 00 courses, HE 100, HE 101, or any 403 course can be counted to fulfill this requirement.
 - A maximum of three credits of special studies credits (400, 401, and 402) or of any internship credit can be used.
 - A maximum of six credits of HE 408 can be used.

Transfer students (external and internal) can meet this requirement by completing 15 credit hours comprised of transfer credit and credit earned in the college, or comprised of credit hours all taken in the college and prorated according to the student's status at matriculation. (Refer to "Policies Related to College Requirements" in the Human Ecology Student Guide for details of this policy.)

All students, including internal and external transfer students, must complete a total of 40 credits in Human Ecology.

IV. Additional Credits (41 credits)

- A. Requirements for the major** (number of credits varies from 0 to 15 credits).
- B. Electives** (number of credits varies from 26 to 41 credits).

Credit requirements in this section are met through courses in the *state divisions of Cornell*:

- College of Human Ecology (in addition to courses in sections I, II, and III)
 - College of Agriculture and Life Sciences
 - School of Industrial and Labor Relations
 - College of Veterinary Medicine
- and through courses in the *endowed divisions of Cornell*:
- Africana Studies and Research Center
 - College of Architecture, Art, and Planning
 - College of Arts and Sciences
 - College of Engineering

- School of Hotel Administration
- Johnson Graduate School of Management

Courses in the endowed divisions in this section may not exceed a total of 21 credits.

V. Physical Education (2 credits)

Students who have successfully fulfilled these requirements should have completed at least two terms of physical education in their freshman year.

Related Policies

College course requirement. Freshmen and sophomores are required to enroll in at least one course in the College of Human Ecology each semester. Students who fail to comply with this requirement will be reviewed by the Committee on Academic Status for appropriate action.

Section II. Students who score 4 or 5 on the Princeton AP Exam are awarded 3 credits in English. Students who score 5 on the Princeton Exam are exempt from one freshman writing seminar in addition to the 3 English credits awarded.

In sections I, II, and III, the required credits listed are the minimums; credits taken in excess of those minimums (section I, 24 credits; section II, 15 credits and section III, 40 credits) count toward electives (section IV, 41 credits).

In sections I and II, courses specified by the major to meet the requirements in the sections may either be used as meeting the credit requirements in those sections or be applied toward the additional credits in section IV.

Section IV. *There is no limit to the number of credits that may be taken in the state divisions of Cornell,* and therefore students may choose to take additional state credits and graduate with more than 120 credits.

Credits in the endowed divisions in this section may not exceed 21. Any course taken in an endowed division for which a grade of F or U is received will be counted *as part of* the 21 endowed credits allowed.

Elective credits earned in Cornell's endowed divisions during summer session, in absentia credits, and transfer credits are counted as credits earned in the state divisions and therefore do not count as part of the 21 credits allowed in the endowed divisions in meeting the requirements of this section.

Not more than 21 credits in section IV may be taken in the endowed divisions of the university except under *both* of the following conditions:

- 1) The students must have senior status (must be in the final two semesters prior to graduation);
- 2) Payment must be made for each credit taken in excess of the 21 allowed, *whether or not the courses are passed.* For the fee per credit charge, students should call the Office of the Bursar.

Related Policies for Transfer Students

Section I-A. Transfers who enter human ecology programs in consumer economics and housing, design and environmental analysis, human service studies (with the exception of the social work program), and policy analysis can satisfy the College of Human Ecology's natural science graduation requirements with any course(s) taken to meet a former college's

natural science requirements as long as the course(s) transferred dealt with matter, energy, and their interrelationships and transformations. Courses in areas such as psychology and mathematics are not included, even though courses in these areas may have been taken to meet a former institution's natural science requirement.

Section II-A. Transfer students should have taken at least 6 credits in courses in English composition or in courses requiring substantial writing and offering instruction in writing equivalent to that offered in the freshmen writing seminar program at Cornell. Students who have not fulfilled this requirement before transferring must fulfill it after matriculation.

Section III-B. External transfer students can meet the requirement for course work outside the major in the College of Human Ecology by completion of either of the following:

- 1) 15 credits of work, outside their department, comprised of transfer credit and credit earned in the college,
- or
- 2) credits all taken in this college (no transfer credit is allowed to meet this requirement), on the basis of the status of the student's matriculation and prorated as follows:

*Cornell
Human Ecology
Credits to Satisfy
Work outside
the Major*

Status at Matriculation

Freshman (1-25 transfer credits)	15
Sophomore (26-55 transfer credits)	12
Junior (56-85 transfer credits)	9
Senior (86-120 transfer credits)	9

Transfer students from other Cornell divisions are required to take the full 15 credits outside the major.

Note that transfer students are still responsible for completing a total of 40 human ecology credits under section III.

Section IV. Transferred credits for courses applied toward electives do not reduce the 21 Cornell endowed credits that students are allowed. Courses with a passing grade below C- will not transfer to meet human ecology degree requirements.

Section V. Transfer students who have had the equivalent of two semesters of college (and therefore enter as sophomores) are not required to take physical education at Cornell, regardless of whether they took physical education at their first college. Exemption or postponement for medical reasons must be cleared by Gannett Health Center. For further information about exemption from, or postponement of, physical education, students should consult the college registrar, Mary Rhodes, in N101 Martha Van Rensselaer Hall.

Related Policies for Freshmen

Section V. Freshmen are required to take two semesters of physical education during their freshman year. Freshman transfer students entering with 12 or more credits have their physical education requirement reduced to one term.

Residency Requirements

All college curricula are planned to fit within an eight-semester program. An average schedule of 15 credits a semester (in addition to physical education) is considered standard, and if pursued for eight semesters will provide the credits needed for graduation. If the student completes all the requirements—for the major, for distribution, for total credits, and for cumulative average—in fewer than eight semesters, the degree may be conferred at the end of the semester in which the last requirements are met. Students who plan to receive their degrees early should notify the college registrar at the beginning of the semester so that their names can be placed on the list of degree candidates.

Sometimes a student (particularly a transfer student) may need an additional semester to complete a program. To register for a semester beyond the eighth, the student submits a petition to the college registrar in the Office of Student Services, N101 Martha Van Rensselaer Hall. The petition should detail the reasons for wanting to enroll for the extra semester and include a list of courses planned for the additional semester. Such requests are usually granted when there appears to be no feasible way for the student to complete the professional curriculum or the degree requirements without the extra semester.

Freshmen entering the college with 15 transfer credits have seven semesters in which to complete the degree. Transfer students must complete at least 60 credits at Cornell.

Mature students (those at least twenty-four years old at the time of matriculation) are not required to petition the college registrar for approval to study beyond the usual eight semesters.

Exemptions from Requirements

Students who want an exemption from a specific graduation or major requirement may petition, and approval may be given under certain circumstances. Full information about the petition process is given in the Human Ecology Student Guide. Petition forms are available in the Office of Student Services, N101 Martha Van Rensselaer Hall.

PROCEDURES

Course Enrollment and Registration

Course enrollment occurs in two steps. During enrollment students request courses, and at university registration students complete information forms, receive their schedules, and have their university IDs validated.

Students are expected to complete course enrollment during specified times each semester. It is the student's responsibility to learn the dates of course enrollment.

Freshmen and transfer students enrolling for the first time in the university in the fall term enroll in their courses during the summer before they arrive on campus. Enrollment materials are mailed to new students in May. Because new students starting at midyear do not have an opportunity to enroll in courses until after they arrive on campus, the college tries to reserve places for them in human ecology courses. The orientation schedule

given to all new students lists a specified time to enroll in such courses.

Continuing students enroll for fall semester in March or April, and enroll for spring semester in October or November preceding the beginning of the term. They are notified of course enrollment dates by poster and by notices in the *Cornell Daily Sun*. Course enrollment materials are available for continuing students in the Office of Student Services, N101 Martha Van Rensselaer Hall. For the first three weeks of the term, students have an opportunity to add courses in other divisions of the university as well as in human ecology.

Enrollment

Before or during course enrollment, students discuss their program plans with a department adviser or a college counselor in the Office of Student Services. For their advising sessions, students need the list of last-minute changes issued by the college registrar, and the *Course and Time Roster* issued by the university registrar. Students must have their course enrollment schedule signed by their departmental major faculty adviser, or if they have not declared a major, by a college counselor.

Students file completed enrollment materials by the announced deadline in the Office of Student Services, N101 Martha Van Rensselaer Hall.

The following policies and procedures apply to course enrollment.

Permission of Instructor

Certain courses may be taken only with the permission of the instructor as indicated in *Cornell University: Courses of Study*. For such courses, students must obtain the instructor's permission before filing their course enrollment form during the pre-enrollment period. Instructors indicate their permission to take the course by signing the student's course enrollment form.

Students interested in taking a course in the Department of Art in the College of Architecture, Art, and Planning are required to register with the departmental secretary (100 Olive Tjadan Hall) before enrolling in the course. Seniors who want to take an elective course in the Johnson Graduate School of Management are required to obtain permission of the instructor on a course authorization form that the student then files with that school's registrar in 312 Malott Hall.

Special Studies Courses

Each department in the College of Human Ecology (CEH, DEA, HDFS, HSS, DNS, and TXA) offers special studies courses that provide opportunities for students to do independent work not available in regular courses. One of those courses, designated 300, Special Studies for Undergraduates, is intended primarily for students who have transferred from another institution and need to make up certain course work.

The other special studies courses are 400, Directed Readings; 401, Empirical Research; and 402, Supervised Fieldwork. Those courses are normally taken by upperclass students, and work is supervised on an individual basis by a faculty member in the department in which the course is offered. It is important for students to use the appropriate course number (300, 400, 401, or 402) for a special project.

A student who wants to take special studies courses talks with the faculty member under whose supervision the study would be done and then prepares a plan of work. If the faculty member agrees to supervise the study, the student completes a multicopy special studies form, a multicopy description of the study to be pursued. The student obtains the signatures of the instructor and the department chair as well as the student's department adviser before submitting it to the Office of Student Services. The student also must complete a course registration form in the Office of Student Services. Special studies forms and instructions are available in the Office of Student Services, N101 Martha Van Rensselaer Hall.

To register in a special studies course taught in a department outside the college, students should follow the procedures established for that department.

Course Loads

The normal course load in the college ranges from 12 to 18 credits. *During the course enrollment period no student may enroll for more than 15 credits or five courses, whichever is greater, without special permission from the college registrar.* To receive permission, a student attaches a note to the course schedule, citing reason(s) for carrying a heavier load, before submitting it to the Office of Student Services, N101 Martha Van Rensselaer Hall.

Credits beyond 15 may be added during the first three weeks of the semester without special permission.

Students should avoid planning excessive work loads; the time required to keep abreast of courses tends to increase as the semester progresses. *Courses cannot be dropped after the seventh week of classes without petitioning*, so students should try to avoid the need to drop courses.

Except for those with mature student status, students must carry at least 12 credits (exclusive of physical education). In special cases, a student may petition to carry between 8 and 12 credits. Forms for petitioning and advice on how to proceed are available from the Office of Student Services, N101 MVR.

Except for mature students, it is seldom possible to have tuition prorated if a student carries fewer than 12 credits during a semester. (See the college registrar for more information.)

Students of mature status may carry 6 to 12 credits without petitioning and may have their tuition prorated. However, at the beginning of each term, mature students planning to take a light course load should pick up a proration of tuition form from the Office of Student Services, fill it out, have it signed by the college registrar, and return it to the bursar's office in Day Hall.

Oversubscribed Courses

Enrollment in many human ecology courses is limited. When a course is over enrolled, students are generally assigned on the basis of seniority or by criteria defined for each course as listed in *Cornell University: Courses of Study*. Student's professional goals may be considered. Those students not admitted to a course may be placed on a waiting list.

Late Course Enrollment

Students who do not file a course enrollment form during the course enrollment period usually must wait until the beginning of the semester to enroll. Extensions are rarely granted and usually only for documented illness.

Students who do not meet the deadline for any reason should see the college registrar in N101 MVR as soon as possible. The college registrar can explain available options on course enrollment procedures under such circumstances.

University Registration

University registration for human ecology students occurs in the auditorium of MVR Hall during the week preceding the start of classes. The Office of the University Registrar announces the specific times of registration.

At registration, students first have their ID validated and then pick up a college registration card at the university table immediately inside the door of MVR auditorium.

Next, students fill out the college registration card and proceed to the college table where they submit their college registration card; in return, they receive a computer printout of courses for which they are officially enrolled.

Important: Students are responsible for checking their course schedule for accuracy of course numbers, credit hours, and other data. Students must correct errors immediately. Procedures for correcting enrollment errors as well as making changes for other reasons are described below under **Course Enrollment Changes**.

Students also receive a *Course and Room Roster* which indicates the locations of their classes.

During university registration in the fall semester, each continuing student receives a copy of his or her **summary of record** from the Office of Student Services. This summary shows graduation and major requirements that the student has completed. Students are responsible for assuring that their academic program meets graduation requirements. They resolve any questions about graduation requirements with the appropriate staff person in the Office of Student Services. Students may direct questions about their academic programs to their faculty adviser or to a counselor in the Office of Student Services.

Late University Registration

A student clearing his or her financial obligations **after** the deadline date on the bursar's bill is considered late. **Late registrants are assessed a finance charge on the bursar's bill starting from the date the bill is due.**

All students must be registered according to university policy before the end of the third week of classes. If for any reason a student registers after that time, there will be a \$200 additional charge.

After completing late university registration, the student submits the college registration card to the Office of Student Services and receives a computer printout of the courses for which he or she is officially registered.

Students who fail to register by the third week of the term will be withdrawn from the

university. Should withdrawn students wish to return, they must reapply through the admissions committee.

Course Enrollment Changes

Deadlines

- During the first three weeks of the term, courses may be added or dropped.
- From the fourth through the seventh week of the term, course changes may be made with the permission of the instructor (instructor's signature on the add/drop form).
- From the fourth week of the term, instructors have the right to consider students' requests for course changes on an individual basis or to announce at the beginning of the term a specific date between the fourth and seventh weeks beyond which they will no longer approve course changes.
- From the eighth week of the term, no course change may be made without petitioning for approval. Petitions are usually granted only in circumstances beyond a student's control (for example, illness). A student petitioning for medical reasons should provide substantiating medical evidence with the petition.
- A student who submits a petition after the seventh week of the term requesting permission to drop a course must attach a statement from his or her faculty adviser to that petition indicating whether or not the advisor supports the request.
- After the seventh week of the term, any student granted permission to drop a course after petitioning will automatically receive a grade of **W** (Withdrawn), and the course will remain on the official transcript.

Deadlines for Half-Term Courses

Students may drop half-term courses within the first three-and-one-half weeks of the course. Students may add classes after the first week of classes only with the permission of the instructor. After the first three-and-one-half weeks, students must petition to drop the course. (See **Petition Process, General Petition Form** for information on the procedure.)

Procedures

It is to the student's advantage to make any necessary course enrollment changes as early in the term as possible. Adding new courses early makes it easier for the student to keep up with course work. Dropping an unneeded course early makes room in the course for other students who may need it for their academic programs.

Ideally, students evaluate their course work load carefully at the beginning of the term. If, in the first week or two, the instructors do not discuss the amount of material to be covered and the extent of student assignments, students need to ask about course requirements.

Some procedures required for course enrollment are also required for course enrollment changes. For example, the instructor's permission must be obtained for a course requiring it, and the same forms for

special studies courses must be completed. Aside from the procedures listed below for course enrollment changes, all course change forms for **nutritional science majors** must be signed by the faculty department adviser.

Waiting List: The Office of Student Services maintains waiting lists for students who want to enroll in courses that have been filled. Waiting lists are maintained on a first-come, first-served basis without regard to seniority or other factors. To keep their names active on a waiting list, students must **check in person every 48 hours** with the Office of Student Services; names of students who do not check in are automatically dropped from the list.

Limited enrollment classes: Students who do not attend the first two class sessions of courses with limited enrollment may be dropped from the course list. Students can avoid being dropped from a class by notifying the instructor that unavoidable circumstances have prevented their attendance.

There is no charge for course changes. To make course changes during the **first three weeks**, a student takes the following five steps:

- 1) Obtains a course-change form from the Office of Student Services, N101 MVR.
- 2) Completes the form and takes it to the appropriate office for signature: for human ecology courses, the forms should be taken to the Office of Student Services; for courses outside the college, the forms should be taken to the appropriate departmental office in the other college.
- 3) Makes sure that his or her name is added to the list of enrolled students for a course being added, or removed from the class list for a course being dropped. Asks the person recording the change to sign the form.
- 4) **Submits all signed forms to the Office of Student Services, including the forms for out-of-college courses.** Changes are not completed until the signed forms are filed in that office. If a student does not drop a course that he or she no longer attends, the student is in danger of receiving an **F** in the course.
- 5) Receives carbon copies of each course change form at the time it is submitted. It is **important** for students to keep these copies to verify later that the forms were filed.

To make course changes during the **fourth through seventh** weeks of the term, a student takes the following steps:

- 1) Completes the five steps listed above for changes made during the first three weeks.
- 2) Obtains the instructors' signatures on the course change form for human ecology courses.

To make course changes **after the seventh week** of the term, a student must file a general petition form. (See the section below, **Petition Process**.) Students are expected to attend classes and to do assigned work until the petition has been formally approved or denied.

In absentia Study

Under certain conditions, credit toward a Cornell degree may be given for in absentia

study, that is, study done at an accredited institution away from Cornell after the student matriculates in the College of Human Ecology.

To be eligible for in absentia study, a student must be in good academic standing and must receive permission in advance from the college registrar. Students not in good standing may study in absentia but will not receive transcript credit until they have been returned to good standing by the Committee on Academic Status. In some cases, students may petition for in absentia credit after the work has been completed, but there is no guarantee that such credit will be awarded without advance approval.

In absentia petition forms are available in the Office of Student Services, N101 MVR. The student completes the form, has it signed by his or her faculty adviser, attaches catalog descriptions for the courses that will be taken, then submits the form to the Office of Student Services, N101 MVR.

Students receive notice of the petition decision by means of a letter from the college registrar.

A student may take up to 15 credits in absentia as long as the courses do not duplicate courses already taken and the in absentia courses are applicable to the requirements of the college. A student's petition for more than 15 credits in absentia may be allowed under the following conditions: (1) the work taken represents a special educational opportunity not available at Cornell, (2) it relates to the student's particular professional goals, and (3) those goals are consistent with the focus of the college. The in absentia petition form is used to request more than 15 credits in absentia.

The college registrar requests approval from the appropriate department if a student wants to apply in absentia credit to requirements for his or her major. If in absentia credit is sought for a modern foreign language in which the student has done work, approval by the Department of Modern Languages and Linguistics (College of Arts and Sciences) must be obtained. The department will recommend the number of credits the student should receive and may require the student to take a placement test after returning to Cornell.

The student is responsible for having the registrar of the institution where in absentia study is taken send transcripts of grades to the Office of Student Services in the College of Human Ecology. Only then will credit be officially assessed and applied to the Cornell degree. Credit for in absentia study will be granted **only** for those courses with grades of C- or better. Only credits (not course names and grades) for in absentia study appear on the Cornell University transcript.

A student who holds a Regents' or Children of Deceased or Disabled Veterans Scholarship may claim that scholarship for study in absentia if the study is done in a college in New York State and if it is for a maximum of 15 credits acceptable to the College of Human Ecology.

The rules regarding study in absentia apply to transfer students with the additional stipulation that at least 60 credits must be taken at Cornell. At least 40 of the 60 credits must be in the College of Human Ecology at Cornell unless the student has transferred equivalent human ecology credit. (No more than 20

credits of equivalent credit may be applied to the 40 credits required in human ecology course work.)

Leaves of Absence

A student may request a leave of absence before the beginning of the semester or during the first seven weeks of the semester for which a leave is sought. A leave may be extended for a second semester by requesting an extension in writing from the Office of Student Services.

A student considering a leave of absence is urged to discuss plans with a counselor in the Office of Student Services. The counselor can supply the necessary forms for the student to complete and file with the Office of Student Services, N101 MVR.

Requests for a leave of absence received after the first seven weeks of the semester, or requests for a leave of absence from students who have already had two semesters' leave of absence, will be referred for action to the Committee on Academic Status. The committee may grant or deny such requests, attaching conditions as it deems necessary. Leaves of absence after the first seven weeks are generally granted only when there are compelling reasons why a student is unable to complete the semester, such as extended illness.

A student who requests a leave of absence after the first seven weeks is advised to attend classes until action is taken on the petition. A student whose petition for a leave of absence is denied may choose to withdraw or to complete the semester.

The academic records of all students who are granted a leave of absence are subject to review, and the Committee on Academic Status may request grades and other information from faculty members to determine whether the student should return under warning or severe warning or in good academic standing.

Withdrawal

A withdrawal is a termination of student status at the university. Students may voluntarily withdraw at any time by notifying a counselor in the Office of Student Services and filing a written notice of withdrawal in the Office of Student Services. A student considering such an action is urged to discuss plans with a counselor in the Office of Student Services, N101 MVR.

In some instances a student may be given a withdrawal by the college registrar. A student who leaves the college without an approved leave of absence or does not return after the leave has expired will be given a withdrawal after the seventh week of the term in which he or she fails to register.

A student who has withdrawn from the college or who has been given a withdrawal by the college registrar and who wishes to return at a later date must reapply through the Committee on Admissions for consideration along with all other applicants for admission. If the student was in academic difficulty at the time of the withdrawal, the request for readmission will be referred to the Committee on Academic Status for consideration, and that committee may stipulate criteria under which the student may be readmitted to the college.

Petition Process

The petition process permits students to request exceptions to existing regulations. Petitions are considered individually, weighing the unique situation of the petitioning student with the intent of college and university regulations.

Students can avoid the necessity to petition by carefully observing the deadlines that affect their academic program. See the **Course Enrollment Changes** section above for some of the important deadlines. If unsure about a deadline, check with a counselor in the Office of Student Services, N101 MVR.

Although many kinds of requests can be petitioned in the college, options other than petitioning may be preferable in some cases. To explore whether a petition is appropriate, the student may discuss the situation with a college counselor or the college registrar in the Office of Student Services.

Students may appeal petitions denied by the college registrar to the Committee on Academic Status. Students who appeal a denied petition **must** attach a statement from the student's faculty adviser before CAS will consider the appeal.

Two kinds of petition forms are available. The uses for both forms are described in the *Human Ecology Student Guide*.

General Petition Form

The general petition form is available in the Office of Student Services, N101 MVR. After completing the form, submit it to the Office of Student Services. Students learn the result of the petition process for the general petition form by checking their mail folder in the student mail center, 138 MVR.

In absentia Petition Form

The in absentia petition form is available in the Office of Student Services, N101 MVR. After completing the form, submit it to the Office of Student Services. In absentia petitions must have attached to them the catalog descriptions of the courses for which credit is requested from the other institution. In absentia petition decisions usually are sent to students via the U.S. postal service.

GRADES

See the "Grading Guidelines" section for information on the official university grading policies.

S-U Grades

Some courses in the college and in other academic units at Cornell are offered on an S-U basis; that fact is indicated in the *Cornell University: Courses of Study*. University regulations concerning the S-U system require that a grade of S be given for work equivalent to a C- or better; for work below that level, a U must be given. No grade point assignment is given to S, and S or U grades are not included in the computation of semester or cumulative averages. A course in which a student receives an S is, however, counted for credit. No credit is received for a U. Both the S and U grades appear on a student's record. A student who is attempting to qualify for the Dean's List must take at least 12 credits for the usual A-F grades.

Only juniors and seniors may take an S-U grade in courses in which the grade of S or U is optional; however, sophomores may take courses in which only the grade of S or U is offered. A student may take no more than four courses (or 12 credits) on an S-U basis during his or her college career; however, more than one S-U course may be taken in one semester. S-U courses may be taken only as electives or in the 15 credits required in the college outside the major unless the requirements for a specific major indicate otherwise. Freshmen enrolled in English 137 and 138 (offered for S-U grades only) are permitted to apply those courses to the freshman writing seminar requirement.

To take a course for an S-U grade, a student must check the course description to make sure that the course is offered on the S-U basis; then either sign up for S-U credit on the course enrollment form, or file an add/drop/change form in the Office of Student Services before the end of the third week of the term. After the third week of the term, students must petition the college registrar to change grade options. Forms are available in the Office of Student Services.

Grades of Incomplete

A grade of incomplete is given when a student does not complete the work for a course on time but when, in the instructor's judgment, there was a valid reason. A student with such a reason should discuss the matter with the instructor and request a grade of incomplete.

Beginning fall 1984, a grade of incomplete may remain on a student's official transcript for a maximum of two semesters and one summer after the grade is given, or until the awarding of a degree, whichever is the shorter period of time. The instructor has the option of setting a shorter time limit for completing the course work.

If the work is completed within the designated time period, the grade of incomplete will be changed to a regular grade on the student's official transcript. If the work is not completed within the designated time period, the grade of incomplete will be automatically converted to an F.

When a student wants to receive a grade of incomplete, the student should arrange a conference with the instructor (preferably before classes end and the study period begins) to work out the agreement. A form, called *explanation for reporting a final grade of F or incomplete*, which has been signed by both the instructor and the student, must be submitted by the instructor to the Office of Student Services. This form is submitted with the final grade sheets whenever a grade of incomplete is given.

This form is for the student's protection, particularly in the event that a faculty member with whom a course is being completed leaves campus without leaving a record of the work completed in the course.

If circumstances prevent a student from being present to consult the instructor, the instructor may, if requested by the student, initiate the process by filling out and signing part of the form and turning it in to the Office of Student Services with the grade sheet. Before a student will be allowed to register for succeeding semesters, he or she must go to

the Office of Student Services to fill out and sign the remainder of the form.

If the work is satisfactorily completed within the required time, the course appears on the student's official transcript with an asterisk and the final grade received for the semester in which the student was registered for the course.

A student who completes the work in the required time and expects to receive a grade must take the responsibility for checking with the Office of Student Services (about two weeks after the work has been handed in) to make sure that the grade has been received. Any questions should be discussed with the course instructor.

NOTE: Grades received more than three weeks after the end of a term are NOT computed in the student's term average when computing the Dean's List. Therefore, students who feel a missing grade or a grade change will make them eligible for the Dean's List must have that grade reported to the Office of Student Services no later than the end of the third week after the term has ended. For purposes of this rule, the last day of final exams is the last day of the term.

ACADEMIC HONORS

The college encourages high academic achievement and recognizes outstanding students in several ways.

Dean's List. Excellence in academic achievement is recognized each semester by placing on the Dean's List the names of students who have completed satisfactorily at least 12 credits with letter grades other than S or U and who have a semester grade point average of 3.5 or above. No student who has received an F or U in an academic course will be eligible.

Kappa Omicron Nu seeks to promote graduate study and research and to stimulate scholarship and leadership toward the well-being of individuals and families. As a chapter of a national honor society in the New York State College of Human Ecology, it stimulates and encourages scholarly inquiry and action on significant problems of living—at home, in the community, and throughout the world.

Students are eligible for membership if they have attained junior status and have a cumulative average of not less than B. Transfer students are eligible after completing one year in this institution with a B average.

Current members of Kappa Omicron Nu elect new members. Not more than 10 percent of the junior class may be elected to membership and not more than 20 percent of the senior class may be elected. Graduate students nominated by faculty members may be elected.

Bachelor of Science with Honors recognizes outstanding scholastic achievement in an academic field. Programs leading to a degree with honors are offered to selected students by the Department of Human Development and Family Studies and the Division of Nutritional Sciences. Information about admission to the programs and their requirements may be obtained from the appropriate department or division. Students in other departments who wish to qualify for honors

should contact Gret Atkin, N115A Martha Van Rensselaer Hall, their sophomore year or the first semester of their junior year.

Bachelor of Science with Distinction

recognizes outstanding scholastic achievement. Consideration will be given to seniors whose academic standing at the end of seven semesters is in the top 10 percent of the graduating class. The honor is conferred on those seniors who are in the top 5 percent of the class after grade point averages have been adjusted by including grades for transfer work and after grades earned in the fifth, sixth, and seventh terms have been given double weighting in the final average. The graduating class includes students who will complete requirements for Bachelor of Science degrees in January, May, or August of the same calendar year.

To be eligible for consideration, transfer students must have completed 45 credits at Cornell. In determining the academic standing of a transfer student, previous work taken at another institution is included in the computation of the student's academic average. Names of seniors who meet these requirements are presented to the faculty of the college for approval.

The primary objectives of the honor society, **Phi Kappa Phi**, are to promote the pursuit of excellence in higher education and to recognize outstanding achievement by students, faculty, and others through election to membership. Phi Kappa Phi is unique in that it recognizes scholarship in all academic disciplines.

To be eligible for membership students must rank in the top ten percent of the senior class, or in the top five percent of the junior class. Provisions also exist for the election of faculty members and graduate students whose work merits recognition.

INTERDEPARTMENTAL COURSES

HE 100 Critical Reading and Thinking

Fall, spring, or summer. 2 credits.

Enrollment limited. Priority is given to freshmen and sophomores; juniors and seniors are admitted with permission of the instructor. S-U grades only.

The objective of this course is to enable students to increase critical reading and thinking abilities. Theory and research associated with a wide range of reading, thinking, and learning skills are examined. Emphasis is placed on developing and applying analytical and evaluative skills. Laboratory instruction is individualized and provides the opportunity to focus intensively on increasing comprehension, reading rate, and vocabulary.

HE 101 College Achievement Seminar

6-week summer session. 2 credits.

Enrollment limited to and required of Prefreshman Summer Program students. S-U grades only.

The objective of this course is to improve the study and learning skills of incoming freshmen. Emphasis is placed on acquisition of skills necessary to achieve academic success. Topics include time management, note-taking, mapping, textbook comprehension, exam preparation, and exam strategies. The application of theory to the demands of Cornell course work is stressed. In addition,

students are introduced to library and computing resources through hands-on projects.

THE URBAN SEMESTER PROGRAM IN NEW YORK CITY

Sam Beck, Ph.D., director

The Urban Semester Program is a set of courses spanning the entire year. During fall and spring semesters students enroll in two separate seminars focusing on the opportunities and barriers that a multicultural society presents and their articulation with professional, community, or public policy settings (15-credit residential program). Students intern three to four days each week and are encouraged to live in the Olin Hall dormitory of the Cornell University Medical College.

The three-week winter intercession course (1 credit) enables students to do fieldwork in New York City by working full time in community-based organizations or through research supervised by the director. In the eight-week summer semester (3 credits), students carry out research projects on the nature of professional practice by interning full time in settings of their choice. Students who seek to contribute to their own communities are encouraged to participate in any of the program offerings. Most students work with the program staff to locate internships. For further information, contact the Urban Semester Program at (212) 746-2273 or the Student Resource Center, N-139 Martha Van Rensselaer Hall.

New York City offers a wide variety of internship settings. Many bilingual and bicultural internship settings are available in Chinese, Spanish, Creole, Russian, Yiddish, and other languages. Examples of internships follow:

- **Health and medicine**—New York Hospital/Cornell Medical Center, Chinatown Health Clinic, New York City Department of Public Health, Bellevue Hospital, Queens Medical Center for Women and Children, Community Health Project

- **Private and public law**—NOW Legal Defense and Education Fund, Neighborhood Defender Service of Harlem, Legal Aid, Puerto Rican Legal Defense and Education Fund, NAACP Legal Defense and Education Fund, Gay and Lesbian Anti-Violence Project, Kane Kessler, P.C.

- **Government and community agencies**—Women's Action Alliance, The Center for Puerto Rican Studies, New York City Commission on the Status of Women, New York City Council offices, Cornell University Cooperative Extension, New York City Department of Consumer Affairs

- **Wall Street firms and other private businesses**—Bloomingdales, Prudential Securities, Oppenheimer, Inc., The Advertising Council, GKN Securities, Rogers and Cowan, Inc., Kidder Peabody, Co., Hill and Knowlton, Young and Rubicam, Altschiller Reitzfeld, Terry Williams Agency

- **Private not-for-profit organizations**—Grant Street Settlement House, Neighborhood Housing Services, Abyssinian Baptist Church Development Corporation, University Settlement Society of New York, Urban

Development Corporation, Greater Chinatown Community Association, Lesbian and Gay Community Services Center

- **Private and public schools**—United Federation of Teachers, Central Park East, River East, Manhattan Center for Math and Science, PS 41, City and Country, Churchill School, Little Red School House, St. Ann's School

- **Design and arts organizations**—Harlem Textile Works, Perry Ellis International, Caribbean Cultural Center, Delacour & Ferrara, Architects, P.C., New York Shakespeare Festival Theatre, New York Theatre Workshop, Cynthia Rowley Company, SOHO 20 Gallery, Museum of African Art, Lower East Side Tenement Museum

- **Communication and media**—Good Housekeeping, Mirabella, William Morrow Co., MTV, NBC-TV, ABC-TV, Good Morning America, WBAI-Radio, *The Village Voice*, *The New Yorker*, Telemundo Group, Inc., *Essence*, McNeil-Lehrer News, Ad Council, *McCalls*, *Child*, Children's Television Workshop, Time Warner, Inc.

HE 401 Empirical Research

Fall, spring, winter, and summer. 1–15 credits. Permission of instructor. S. Beck. This course is available to juniors and seniors who wish to pursue a well-defined, independent research project sponsored by one or more faculty members. Honors projects are welcome. Such students must participate in the course work of HE 402, HE 406, or HE 408. Students must provide a project proposal no longer than five pages, an annotated bibliography representing the fields of interest to be researched or explored, and a letter of approval from one faculty member who will sponsor the investigation.

HE 402 Supervised Fieldwork in Urban Affairs

Winter. 1 credit. Limited to 12 students. Permission of instructor.

This course allows students to participate in Urban Semester Program research or internship opportunities in New York City. Research projects are carried out under the supervision of the program director and will include opportunities for field observation, interviewing, and library and archival inquiry, focused on socioeconomic processes in urban settings. Students interested in internships locate their own placements with assistance from the Urban Semester Program staff. Students keep a journal that reflects on their community service experiences with a focus on specific learning objectives. Applications and placement information are available in the College of Human Ecology Student Resource Center, N-139 Martha Van Rensselaer Hall. Applications must be accompanied by a résumé, a statement of learning objectives, a letter from the placement supporting the student's plan, and a rationale for participating in this activity. The research or community service must take place during the Cornell winter session period.

HE 403 Teaching Apprenticeship

Fall, spring, winter, and summer. For study that includes assisting faculty with instruction. Prerequisite: Students must have taken the course (or equivalent) in which they will be assisting and have demonstrated a high level of performance.

HE 406 Fieldwork in Professional Practice: Summer in the City

Summer. 1-3 credits. 8-week session. Limited to 12 students.

This is a seminar that examines the culture of professional practice, how professionals think and behave, and the role of professionals in society through internships and weekly discussions with practitioners in a variety of fields. Students will carry out fieldwork in internship placements by researching professional practice in New York City. They will intern for a minimum of eight weeks in organizations and fields such as business, government, private not-for-profit services, education, medicine and health, law, media and communications. Students locate their own internships with assistance from the Urban Semester Program staff. Applications and placement information are available in the College of Human Ecology Student Resource Center, N-139 Martha Van Rensselaer Hall.

HE 408 The Urban Semester Program: Multicultural Issues in Urban Affairs

Fall or spring. 9-15 credits. Limited to 30-35 students, depending on housing availability. Preference given to juniors and seniors. Applications and placement information available in the College of Human Ecology Student Resource Center, N-139 Martha Van Rensselaer Hall.

This course is a study of multicultural issues in urban affairs as students enhance their academic foundations in career development. Students examine issues of diversity (e.g., race, ethnicity, religion, class, gender, sexual orientation) in relationship to: (1) professional life in different sectors of the economy; (2) the development of neighborhoods and communities; and (3) the basis of a just and democratic society. Students intern three to four days each week and attend seminars that include site visits and discussions on multicultural issues with representatives of community, education, government, business, medical organizations and health, legal, and private not-for-profit organizations. In addition, students can enroll in a three-credit companion course offered in New York City through one of the academic departments in the College of Human Ecology.

CONSUMER ECONOMICS AND HOUSING

W. K. Bryant, chair; P. Chi, graduate faculty representative; A. Mathios, undergraduate advising coordinator; R. B. Avery, R. J. Avery, F. Firebaugh, J. Gerner, R. Heck, J. Hogarth, D. Kenkel, N. Kutty, D. Lillard, L. Morton, E. Peters, P. Pollak, M. Rendall.

NOTE: Class meeting times are accurate at the time of publication. If changes are necessary, the department will provide new information as soon as possible.

CE&H 110 Introductory Microeconomics

Fall. 3 credits. S-U grades optional. Students who have taken Economics 101 or the equivalent should not register. Required course packets available from the Campus Store. Staff. M W F 9:05-9:55.

This course introduces students to the operation of markets. The focus is on understanding the motivation and behavior of households and firms, and the market outcomes that result from their interaction.

Special attention is paid to the role of market structure, issues of equity and efficiency, and governmental regulation and public policy.

CE&H 111 Introductory Macroeconomics

Spring. 3 credits. S-U grades optional. Students who have taken Economics 102 or another introductory macroeconomics course should not register for this course. Staff. M W F 11:15-12:05.

Principles of macroeconomics with an emphasis on the relevance of economic policies to consumers and households. Topics include national income accounting, aggregate demand and aggregate supply, the role of monetary and fiscal policy in confronting the problems of inflation and unemployment, and international economics.

CE&H 210 Intermediate Microeconomics

Fall or spring. 4 credits. Prerequisite: CEH 110 or equivalent. Fall: preference to sophomores and juniors. Spring: preference to juniors and seniors. Limited to 80 students per lecture in fall and spring. Staff. Fall: T R 12:20-1:35. Spring: M W F 1:25-2:15.

Theory of demand and consumer behavior including classical and indifference curve analyses; theories of production and cost; models for the following markets—competitive, monopoly, monopolistic competition, oligopoly, and inputs; general equilibrium; welfare economics; public goods; risk.

CE&H 226 Household and Family Demography

Spring. 3 credits. Prerequisite: RSOC 101 or equivalent. S-U grades optional. M. Rendall. T R 2:30-3:45.

This course identifies important trends in U.S. household and family structure, examines the demographic, social, and economic forces behind recent changes in household structure, and evaluates current and future consequences and policy implications of these changes for both households and society. Topics include historical and contemporary trends in the size and composition of families and households, trends in marriage, divorce, remarriage, contraception, childbearing, and living arrangements, and interrelationships between household division of labor. Policy implications of all of the above are also considered.

CE&H 233 Consumers in the Market

Fall. 4 credits. Prerequisites: CEH 110 or equivalent. R. J. Avery. M W F 2:30-3:20.

A study of the structure and functioning of consumer retail markets with emphasis on the role and activities of the major players in these markets—firms, consumers, and governments. The nature and consequences of various types of market failures are studied from the perspective of the firm, the consumer, and the role of government. Case studies and outside lecturers are used to impart reality to the course.

CE&H 247 Housing and Society

Spring. 3 credits. S-U grades optional. P. Chi. M W F 10:10-11:00.

A survey of contemporary American housing issues as related to the individual, the family, and the community. The course focuses on the current problems of the individual housing consumer, the resulting implications for housing the American population, and governmental actions to alleviate housing problems.

CE&H 250 Introduction to Policy Analysis

Spring. 3 credits. Prerequisite: CEH 210. N. Kutty. T R 12:20-1:35.

Introduction to the tools and techniques of policy analysis. Topics covered include public finance issues, measurement of welfare loss, cost-benefit analysis, and other techniques used to evaluate public policy. This course includes a discussion of how economic and political considerations interact to produce public policy.

CE&H 300 Special Studies for Undergraduates

Fall or spring. Credits to be arranged. Staff.

Special arrangement for course work to establish equivalency for courses not transferred from a previous major or institution. Students prepare a multicopy description of the study they want to undertake, on a form available from the Student Services Office. The form, signed by both the instructor directing the study and the head of the department, is filed at course registration or during the change-of-registration period.

CE&H 307 Introduction to Econometrics

Fall. 4 credits. Prerequisites: Ag Econ 310 or equivalent. D. Lillard. M W F 10:10-11:00.

The course introduces students to basic econometric principles and the use of statistical procedures in empirical studies of economic models. Assumptions, properties, and problems encountered in the use of multiple regression procedures are discussed. Students are required to specify, estimate, and report the results of an empirical model. Section meets once a week.

CE&H 315 Personal Financial Management

Spring. 3 credits. Preference given to human ecology students; limit 200; not open to freshmen. S-U grades optional. R. Heck. M W F 10:10-11:00.

The study of personal financial management at various income levels and during different stages of the family life span. Course topics include financial management frameworks and decision-making processes, basic economic and financial principles, returns to human resources, income and wealth analysis, the role of consumer and mortgage credit, financial insolvency and counseling, expenditure and purchase analyses, the use of budgets and record keeping in achieving family economic goals, economic risks and available protection, retirement and estate planning, and alternative forms of savings and investments.

[CE&H 320 Economics of Family Policy—Adults]

Fall. 4 credits. Limited to 40 students. Junior or senior standing; non-CEH or PA majors by permission of instructor. Staff. M W F 1:25-2:15. Not offered 1995-96.

This course examines the economics of family policy issues that have a particular impact on adult family members. Emphasis in this course is on the economic behavior surrounding the policy and the incentives set up by the policy. Policies considered include marriage and divorce, family leave policy, policies assisting single parents, and policies affecting caregiving.]

CE&H 321 Economics of Family Policy—Children

Spring. 4 credits. Limited to 40 students. Junior or senior standing; non-CEH or PA majors by permission of instructor. J. Gerner. M W F 1:25–2:15.

This course examines the economics of family policy issues that particularly affect children. This course focuses on a) the economic behavior that generates the policies and b) the economic incentives and behavior that result from the policies. Topics include child welfare, education, day care provision, child support, and adoption.

CE&H 325 Economic Organization of the Household

Fall. 3 credits. Prerequisite: CEH 110 or equivalent. S-U grades optional. W. K. Bryant. T R 10:10–11:25.

Economic models are used to help explain a wide variety of family and individual behavior. Topics include the demand for consumer goods and services; consumption and saving; time allocation in the household including labor supply, household production and leisure; human capital investment; fertility; marriage and divorce. Within each topic, uses of the material by public- and private-sector decision makers are discussed.

CE&H 330 The Economics of Consumer Policy

Fall. 4 credits. Open to juniors, seniors, and graduate students. Prerequisites: CEH 110, 111 and 210 or permission of instructor. Class packets on sale at Campus Store. D. Lillard. T R 1:25–2:40.

Students are acquainted with the basic approaches to consumer policy and perform economic analyses of specific consumer policy issues. Three specific areas of policy intervention are addressed: externalities and public goods; anti-trust and regulation of "natural" monopolies; and markets characterized by imperfect information. Policy discussions are reinforced through the use of specific real-world examples. Students are required to write three short papers on each area of policy intervention discussed in class.

CE&H 348 Urban Economics and Policy

Spring. 4 credits. Prerequisite: CEH 110 or equivalent. S-U grades optional. N. Kutty. T R 2:30–3:45.

This course explores the economics of cities and urban problems. The course starts by studying the location choices of firms and households. The remainder of the course is spent using these insights, as well as standard economic theory, to gain an understanding of urban problems—poverty, housing, transportation, education, and crime. An analysis of existing and proposed public policies is an important component of the course.

CE&H 355 Wealth and Income

Fall. 3 credits. Open to sophomores, juniors, and seniors; graduate students may elect to audit and write a research paper for 1 to 2 credits under CEH 600. Prerequisites: CEH 110–111 or equivalent. S-U grades optional. D. Lillard. M W F 9:05–9:55.

The wealth and income positions of American households are defined and described and their economic determinants discussed along with the impacts of tax and expenditure policies and the economics of the political positions for and against such policies.

CE&H 356 The Economics of Welfare Policy

Spring. 4 credits. Prerequisite: CEH 110 or equivalent. S-U grades optional. Staff. M W F 9:05–9:55.

Using the tools of economics, this course examines welfare policy. Included are an examination of which populations are affected, what behavior various policies are likely to engender, and how much income redistribution occurs as a result of various welfare policies. Also evaluated are various proposals for welfare reform.

CE&H 365 Economics of Consumer Law

Spring. 3 credits. Prerequisite: CEH 110 or equivalent. S-U grades optional. A. Mathios. M W F 11:15–12:05.

Economic analysis of the roles played both by the courts and by federal and state regulatory legislation in altering consumer markets, consumer behavior, and consumer welfare. Topics include economic analyses of contract law, products liability, accident law and antitrust law, as well as the activities of such agencies as the Federal Trade Commission, the Food and Drug Administration, and the Consumer Product Safety Commission.

CE&H 400–401–402 Special Studies for Undergraduates

Fall and spring. Credits to be arranged. S-U grades optional. Staff.

For advanced independent study by an individual student or for study on an experimental basis with a group of students in a field of CEH not otherwise provided through course work in the department or elsewhere at the university. Students prepare a multicopy description of the study they want to undertake, on a form available from the Student Services Office. This form must be signed by the instructor directing the study and the department chair and filed at course registration or within the change-of-registration period after registration. To ensure review before the close of the course registration or change-of-registration period, early submission of the special studies form to the department chair is necessary. Students, in consultation with their faculty supervisor, should register for one of the following subdivisions of independent study.

CE&H 400 Directed Readings

For study that predominantly involves library research and independent reading.

CE&H 401 Empirical Research

For study that predominantly involves data collection and analysis.

CE&H 402 Supervised Fieldwork

For study that involves both responsible participation in a community setting and reflection on that experience through discussion, reading, and writing. Academic credit is awarded for this integration of theory and practice.

[CE&H 434 Financial and Credit Markets and Policy

Spring. 3 credits. Prerequisite: CEH 111. S-U grades optional. Not offered 1995–96.

This course studies the structure of financial markets in the United States. A number of different markets and institutions will be examined including: banks, savings and loans, insurance companies, pension funds, government bond markets, credit unions, and finance companies. The principles underlying government regulation of these institutions

will be explored, as well as management problems and concerns. The emphasis will be on learning the institutional environment, not on personal finance.]

CE&H 435 Families in Business

Spring. 3 credits. Prerequisites: Ag Econ 310 or permission of instructor. S-U grades optional. R. Heck. T R 10:10–11:25.

This course explores the economic impacts and implications of business viability for the family involved in a business. Topics include an overview of families who own a business, profiles of their businesses, use of resources for the family and the businesses, unpaid transfers made within the family for the business, economic well-being measures for the family and business, and the transfer of wealth and business ownership among family members and between generations. Topics are explored relative to stages of business activity including feasibility, start-up, ongoing maintenance, expansion of redirection, and exit or transfer. The course also surveys the conceptual issues and methodological approaches and issues related to the study of family-owned businesses.

CE&H 436 Empirical Research on Family Owned Businesses

Fall. 3 credits. S-U grades optional. Offered alternate years. R. Heck. T R 10:10–11:25.

Allows students to develop research skills by providing opportunities for hands-on survey and fieldwork. Topics and activities include research design, sampling, questionnaire development, and statistical analyses related to family-owned businesses; critical review of current research approaches and extant databases used to research business ownership; and implementation and completion of an actual survey of fieldwork project of selected family business owners, or the use of extant databases for descriptive analyses of family-owned businesses.

CE&H 444 Housing for the Elderly

Fall. 3 credits. Prerequisite: CEH 247 or permission of instructor. S-U grades optional. P. Chi. T 2:30–4:30.

This is a service-based seminar that will allow students to explore, through a wide range of service experiences, the different ways community agencies assist older adults to remain independent in such diversified residential settings as planned retirement housing, subsidized housing for the low-income elderly, home-sharing projects, ECHO housing, accessory apartments, shared group living projects, and continuing care retirement community. This seminar will focus on how the residential environment influences the ability of older adults to function independently and impacts their need for services. Throughout the seminar, students will be asked to reflect critically on how their service experience complements, challenges, or extends the course curriculum.

The seminar will meet every week for 2 hours. Students are also required to have 4–6 hours of service a week, 4 during the weeks the seminar meets and 6 during the other weeks.

[CE&H 446 Housing Demography

Fall. 3 credits. Prerequisite: CEH 247 and one course in statistics or permission of instructor. S-U grades optional. Not offered 1995–96. P. Chi.

This course focuses on the interface between population and housing from different vantage points. From a housing perspective, the subjects covered in this course include (1) empirical assessment of housing quality and affordability; (2) social, demographic, and health effects of housing environment; (3) housing filtering and spatial patterns. From a population perspective, the emphasis is on (1) household composition and housing adjustments, (2) household formation and future housing needs, and (3) housing issues for special population groups.]

[CE&H 448 Empirical Research in Housing and Mortgage Markets]

Fall. 4 credits. Prerequisites: CEH 210 and Ag Econ 310 or the equivalent. Not open to freshmen and sophomores. Not offered 1995-96. R. B. Avery.

The purpose of this course is to provide students with the opportunity to actively engage in empirical research. Using data from Syracuse, New York, the class (as a whole) will conduct a small-scale research project on a public policy issue.]

CE&H 485 Evaluation of Public Policies

Fall. 3 credits. Prerequisites: CEH 110, 210, 250, or equivalent and an introductory statistics course. D. Kenkel. T R 12:20-1:35.

This course aims at providing an understanding of the theory and practice of evaluation research. The introductory section of the course examines the rationale for government intervention in market economy. The main section of the course focuses on various techniques of evaluation research. The following techniques will be covered: (i) Benefit-cost analysis; (ii) cost-effectiveness analysis; (iii) non-experimental and quasi-experimental designs for impact assessment (including multivariate regression analysis); and (iv) experimental designs for impact assessment. The concepts of causal inference and validity will also be studied. In this course, the theoretical concepts of evaluation research will be illustrated with ample examples of actual policy evaluations. The course involves an all-day trip to Albany on a working weekday for interface with evaluation staff at NY State agencies as a part of a class project.

CE&H 600 Special Problems for Graduate Students

Fall and spring. S-U grades optional. Staff.

Independent advanced work by graduate students recommended by their chair and approved by the department chair and the instructor.

CE&H 601 Research Workshop in Consumer Economics and Housing

Fall and spring. 1-3 credits. S-U grades only. Staff.

Research seminar designed to provide a forum for graduate students in consumer economics and housing to present their own thesis research at an early stage and to provide critical input for other graduate students.

CE&H 606 Demographic Techniques

Fall. 3 credits. S-U grades optional. M. Rendall. T R 12:20-1:35.

This course provides an introduction to the methods, measures, and data used in the analysis of human populations. Topics include demographic rates, life-table analysis, cohort vs. period analysis, sources and quality

of demographic data, population estimation and projection, and stable population models.

[CE&H 607 Econometric Topics]

Fall. 3 credits. S-U grades only. Prerequisite: Ag Econ 710 or equivalent. Offered alternate years. Not offered 1995-96.

An advanced econometric course consisting of two separate modules. The first module will cover household survey methodology including sample design, questionnaire development, data weighing, and imputation. The second module will focus on limited dependent variable models. Linear probability, logistic probit, and tobit models will be examined as well as problems of sample section bias.]

CE&H 613 Economics of Consumer Demand

Fall. 3 credits. Prerequisite: CEH 210, Economics 311 or 313, or concurrent enrollment in one of the three. S-U grades optional. W. K. Bryant. T R 8:40-9:55.

Introduction at the graduate level to theory and empirical research on household demand, consumption, and saving. Emphasis on the use of the theory in empirical research. Topics include neo-classical theory of demand, duality, complete demand systems, demographic scaling and translating, consumption and savings. As time allows, Becker and Lancaster models of demand will be introduced.

CE&H 624 Economics of Household Behavior

Spring. 3 credits. Prerequisite: CEH 613 or Economics 509-510 or consent of instructor. S-U grades optional. E. Peters. T R 12:20-1:35.

This course examines economic models of fertility, investment in children, family formation and dissolution, resource allocation within the household, and intergenerational transfers across households. Empirical applications of the models are presented for both developed and developing countries. Implications of the models for family policies such as child care subsidies, divorce laws, and family planning programs are also discussed.

CE&H 627 Advanced Family Demography

Spring. 3 credits. Prerequisite: CEH 606 or equivalent. S-U grades optional. M. Rendall. W 1:25-3:55.

This course builds on the basic methods of dynamic population analysis covered in CEH 606, Demographic Techniques, extending them to the study of lives and populations structured not only by age and sex, but also by family status. The same or very similar methods apply to populations structured on other discrete dimensions (e.g., labor force status, region of residence, health status). Life-course analysis methods used to study the distribution of total lifetime are extended to the study of the distribution of total lifetime between family states. Methods for studying reproduction are extended to the study of kin and family sizes resulting from distributions of reproductive performance in the female population. Methods for studying individual lifetimes are also extended to the study of intersecting lifetimes, primarily through nuptiality. These are two-sex models or, more generally, models of interacting populations. Finally, household structure, fusion, and fission are studied. This combines elements of interacting-population and kin-availability modeling, plus static population-comparison methods.

CE&H 635 Information and Regulation

Spring. 3 credits. Prerequisite: CEH 613. Class packets on sale at Campus Store. A. Mathios. M W F 2:30-3:20.

A survey of the problems and policies accompanying informational failures and other market failures with regard to consumer well-being. Governmental regulation of products, of producers, of consumers, and of prices is examined. Antitrust activity, disclosure requirements, advertising restrictions, and regulatory agencies are examined in terms of their ability to serve the public interest or to serve special interests. Economic analysis, rather than institutional structure, is emphasized.

CE&H 639 Consumer Decision Making

Fall. 3 credits. R. J. Avery. M W F 10:10-11:00.

Individual and family decision making with respect to their market purchases will be investigated from a multidisciplinary perspective. Topics to be covered in the course include cognitive theories of information processing; theories of group interaction in decision making; and the effect of advertising, imperfect information, and uncertainty on consumer product evaluation and purchase behavior. Special attention will be given to decision making by consumers in various market segments, e.g., low-income consumers, children, and the elderly. Specific attention will be paid to how consumers in these segments process marketer-provided information and their related consumption decisions.

CE&H 648 Housing Economics

Spring. 3 credits. Prerequisite: CEH 210 or Economics 311 or 313. N. Kutty. M 1:25-3:55.

A survey of economic theory and empirical research related to housing markets. The course studies the demand and supply sides of the housing market as applications of microeconomic theory. Topics related to housing demand include tenure choice (decision to own or rent), household formation, mobility, and discrete choice models of housing demand. Topics on the supply side include housing starts, maintenance, and rehabilitation. Topics in housing finance such as mortgage choice, and the demand for home mortgage debt will be studied. Housing policy issues such as tax policy, housing for the elderly, fair housing, rent control, and zoning also will be addressed.

CE&H 899 Master's Thesis and Research

Fall and spring. Prerequisite: permission of the chair of graduate committee and instructor. S-U grades optional. Graduate faculty.

CE&H 999 Doctoral Thesis and Research

Fall and spring. Prerequisite: permission of the chair of graduate committee and instructor. S-U grades optional. Graduate faculty.

DESIGN AND ENVIRONMENTAL ANALYSIS COURSES

W. Sims, chair; F. Becker, graduate faculty representative; M. Boyd, undergraduate advising coordinator; A. Basinger, S. Danko, P. Eshelman, G. Evans, K. Gibson, A. Hedge, J. Jennings, J. Laquatra, L. Maxwell, E. Schrank

Note: A minimal charge for photocopied course handouts may be required.

NOTE: Class meeting times are accurate at the time of publication. If changes are necessary, the department will provide new information as soon as possible.

DEA 101 Design I: Fundamentals

Fall. 3 credits. Each section limited to 18 students. Permission of instructor required. Priority given to interior design majors. Option I majors must take DEA 101 in fall of their first year. Approximate cost of materials, \$60. M. Boyd. M W 1:25-4:25; T R 10:10-1:10.

A studio course introducing the fundamental vocabulary and principles of two- and three-dimensional design. Students experiment with the development of form through problem-solving approaches.

DEA 102 Design II: Fundamentals

Spring. 2 credits. Permission of instructor required. Option I DEA majors only. B- or higher in DEA 101 required to register for this course. Option I majors must take DEA 102 and 115 concurrently. Approximate cost of materials, \$200; shop fee, \$10. P. Eshelman. T R 1:25-4:25.

A studio course in three-dimensional design with an interior design emphasis. Problems in spatial organization are explored through drawings and models.

DEA 111 Introduction to Design

Fall. 3 credits. Limit 300. Staff. M W F 12:20-1:10.

Introduction to the field of design for students in any academic area. The course reviews the spectrum of design activities, examining various movements in design and differences among designers in philosophical premises, social and functional roles, and cultural positions. Also examined are how requirements in the built environment are affected by the interaction of people, design, and materials. Lectures and visual material are presented by DEA faculty members and visiting design professionals.

DEA 115 Drawing for Interior Design

Spring. 3 credits. Option I DEA majors only. Prerequisite: DEA 101; must take DEA 102 and DEA 115 concurrently. Minimum cost of materials, \$100. Permission of instructor only. P. Eshelman. T R 10:10-1:10.

A studio drawing course for interior designers. Discussion groups on drawing techniques are held to develop a visual understanding and vocabulary. Students are introduced to the functions of line, shape, and value. Perspective, spatial, and conceptual drawing are emphasized.

DEA 143 Inside Out: The American Everyday Interior

Spring (odd-numbered years). 3 credits. S-U option. J. Jennings. T R 10:10-11:15. A study of late nineteenth- and twentieth-century everyday interiors in socio-cultural contexts, with an emphasis on design dissemination, consumer patterns, and gender issues. Topics include women's walls, power

in the parlor, photographs as a mirror, the love of the colonial.

DEA 150 Introduction to Human-Environment Relations

Spring. 3 credits. G. Evans. M W F 12:20-1:10.

Introduction to the influence of physical environment on human behavior. Topics include environmental influences on crowding, community, crime, and friendship; environmental needs associated with characteristics such as stages in life cycle, life styles, social class, family structures, and handicaps; person-environment fit for lighting, acoustics, indoor air quality and ventilation, and thermal comfort; introduction to human factors and systems analysis; effects of environment on perception-cognition; user-responsive design; participatory design programming; and post occupancy evaluation.

DEA 201 Design III: Basic Interior Design

Fall. 4 credits. Limited to 18 students. Prerequisites: DEA 101, 102, and 115 (minimum grades of B-.) Recommended: DEA 111 and 150. Coregistration in DEA 203 and DEA 251 is required. Minimum cost of materials, \$150; shop fee, \$10; optional field trip, approximately \$100; diazo machine fee, \$8. J. Jennings. M W F 1:25-4:25.

Beginning interior design studio. Focus is on development of basic proficiency in interior design skills. The course is structured around a series of elementary interior and interior-product design problems of 3 to 5 weeks in length.

DEA 202 Design IV: Basic Interior Design

Spring. 4 credits. Each section limited to 18 students. Prerequisites: DEA 201 and 203. Prerequisites or corequisites: DEA 111 and 204. Minimum cost of materials, \$120; diazo machine fee, \$8; field trip fee. Staff. T R 12:20-4:25.

Second interior design studio. Emphasis of the course is on continued development of basic proficiency in design skills through exposure to a selected set of interior design problems of limited complexity. Each problem of 3 to 5 weeks duration is structured to emphasize different aspects of the design process.

DEA 203 Design Communications

Fall. 1 credit. Priority given to DEA majors. Lab fee \$10. S. Danko. R 2:30-4:25.

Communication techniques for architectural and interior designers. Students study the various forms of communication used throughout the design process, from programming and conceptualization through construction documentation, and the most effective utilization of those forms. Both verbal and visual presentation methods are stressed.

DEA 204 Introduction to Building Technology

Spring. 2 credits. W. Sims. M 2:30-4:25.

Introduction to building technology for interior designers and facility managers. Emphasis is placed on developing basic understanding of buildings and building systems and their implications for interior design and facility management. Covers basic building types; structural systems; construction materials and methods; HVAC systems; plumbing, electrical, lighting, fire, and security systems; and telephone, computer, and other communication systems.

DEA 250 The Environment and Social Behavior

Fall. 3 credits. Prerequisite: DEA 150 or permission of instructor. Field trip fee \$65. G. Evans. T R 2:30-4:00.

A combination seminar-and-lecture course for students interested in the social sciences, design, or facility management. Through projects and readings the influence of environmental form on social behaviors such as aggression, cooperation, communication, community, and crime is explored. Also covered are the influences of stage in life cycle, family structure, and social class on environmental needs and purposes. Implications for the planning, design, and management of complex environments such as offices, hospitals, schools, and housing are emphasized.

DEA 251 History and Theory of the Interior

Fall. 3 credits. Prerequisites: DEA 101 and 111. J. Jennings. M W F 9:05-9:55.

An historic study of interior architecture and design with an emphasis on the concepts of design theory. Overarching themes encompass several time periods from the classical to the twentieth century and isolate cultural patterns, spatial ideas, dialectics, design elements and theorists. Reading, discussion, analytical exercises, essays, examinations. Field trip.

DEA 300 Special Studies for Undergraduates

Fall or spring. Credit to be arranged. Department faculty.

Special arrangement for course work to establish equivalency for courses not transferred from a previous major or institution. Students prepare a multicopy description of the study they want to undertake on a form available from the Student Services Office. The form, signed by both the instructor directing the study and the head of the department, is filed at course registration or during the change-of-registration period.

DEA 301 Design V: Intermediate Interior Design

Fall. 5 credits. Prerequisites: DEA 111, 150, 201, 202, 203, and 204. Corequisite: DEA 303 and 459. Minimum cost of materials, \$150; shop fee, \$10; optional field trip, approximately \$100; diazo machine fee, \$8. P. Eshelman. M W F 1:25-4:25.

Intermediate-level interior design studio. The course is organized around a series of interior and interior-product design problems of intermediate-level complexity, 3 to 5 weeks in duration. Focus is on development of design skills and on understanding of a selected set of generic problem types.

DEA 302 Design VI: Intermediate Interior Design

Spring. 4 credits. Prerequisites: DEA 301 and 303 or permission of instructor. Corequisites: DEA 304 and DEA 305. Minimum cost of materials, \$150; shop fee, \$10; diazo machine fee, \$8. K. Gibson. M W F 1:25-4:25.

Intermediate-level interior design studio with an introduction to computer applications. Emphasis on using the microcomputer as a design tool in the process of creating and planning interior spaces. Continued development of design skills and problem solving in relation to a selection of problem types.

DEA 303 Introduction to Furnishings, Materials, and Finishes

Fall. 1 credit. P. Eshelman. T 2:30-4:25. Basic understanding of furniture types and systems; interior products and equipment such as work-stations; window, wall, and floor coverings; ceiling and lighting systems; and materials and finishes. Emphasis is placed on criteria for selection of furnishings materials and finishes for typical interior design and facility management problems.

DEA 304 Introduction to Professional Practice of Interior Design

Spring. 1 credit. A. Basinger. T 2:30-4:25. Introduction to organizational and management principles for delivery of interior design and facility management services. Covers basic organizational structures and basic management functions within interior design and facility management organizations, work flow and scheduling, business practices, legal and ethical responsibilities and concerns, contracts, basic contract documents such as working drawings and specifications, supervision of construction and installation, and cost estimation.

DEA 305 Construction Documents and Detailing

Spring. 1 credit. Prerequisites: DEA 301 and DEA 303. Corequisites: DEA 302 and DEA 304. Minimum cost of materials \$50. Field trips, \$50. S. Danko. R 2:30-4:25. Comprehensive study of drafting, detailing, schedules and specifications. Emphasis on drawing conventions, symbols, dimensioning, detailing of interior elements, terminology, construction methods and materials.

DEA 325 Human Factors: Ergonomics-Anthropometrics

Fall. 3 credits. Recommended: A 3-credit statistics course and DEA 150. A. Hedge. T R 9:05-11:00. Implications of human physical and physiological characteristics and limitations on the design of settings, products, and tasks. An introduction to engineering anthropometry, biomechanics, control/display design, work physiology, and motor performance. Course includes practical exercises and field project work.

DEA 349 Graphic Design

Spring. 3 credits. Enrollment limited to 18 students. Recommended: design background. Priority given to DEA majors. Approximate cost of materials, \$50. M. Boyd. M W 1:25-4:25. The fundamentals of lettering, typography, layout, presentation techniques and the functional and visual aspects of environmental graphics. Printing processes and the application of photography and illustration are also covered. A series of projects explores problems typical of the graphic design field, and in interior and exterior graphics, signing, and directional systems.

DEA 350 Human Factors: The Ambient Environment

Spring. 3 credits. Recommended: DEA 150. A. Hedge. T R 9:05-11:00. An introduction to human-factors considerations in lighting, acoustics, noise control, indoor air quality and ventilation, and the thermal environment. The ambient environment is viewed as a support system that should promote human efficiency, productivity, health, and safety. Emphasis is placed on

the implications for planning, design, and management of settings and facilities. Course includes a field project.

DEA 400-401-402-403 Special Studies for Undergraduates

Fall or spring. Credits to be arranged. S-U grades optional. Department faculty. For advanced independent study by an individual student or for study on an experimental basis with a group of students in a field of DEA not otherwise provided through course work in the department or elsewhere at the university. Students prepare a multicopy description of the study they want to undertake on a form available from the Counseling Office. This form must be signed by the instructor directing the study and the department head and filed at course registration or within the change-of-registration period after registration. To ensure review before the close of the course registration or change-of-registration period, early submission of the special studies form to the department head is necessary. Students, in consultation with their advisers and the instructor should register for one of the following subdivisions of independent study.

DEA 400 Directed Readings

For study that predominantly involves library research and independent reading.

DEA 401 Empirical Research

For study that predominantly involves data collection and analysis, or laboratory or studio projects.

DEA 402 Supervised Fieldwork

For study that involves both responsible participation in a community setting and reflection on that experience through discussion, reading, and writing. Academic credit is awarded for this integration of theory and practice.

DEA 403 Teaching Apprenticeship

For study that includes teaching methods in the field and assisting faculty with instruction. Students must have demonstrated a high level of performance in the subject to be taught and in the overall academic program.

[DEA 404 Design VII: Advanced Interior Design

Fall. 4 credits. Prerequisites: DEA 302, DEA 303, DEA 304, and DEA 305. Minimum cost of materials, \$150. Diazo machine fee \$8. Field trip \$50. Staff. Not offered 1995-96. M W F 1:25-4:25. Advanced interior design studio organized around a series of interior design problems, 3 to 5 weeks in duration. Focus is on development of design skills and on competence in solving a selected set of generic interior design problem types.]

DEA 405 Portfolio Preparation

Spring. 3 credits. Enrollment limited to 18. Prerequisites DEA 301 or permission of instructor. S-U option. Minimum cost of materials, \$200. Required field trip \$20. M. Boyd. M W 10:10-1:10. Students apply graphic design principles to develop a professional portfolio of their work. Also covered are resume writing and planning the job search, and the use of appropriate computer software computer-aided graphic tools.

DEA 443 American Vernacular Interiors

Spring (even-numbered years). 3 credits. Enrollment limited to 15 students. S-U option. Field trips \$50. J. Jennings. T R 10:10-11:30.

A topical study of nineteenth- and twentieth-century American vernacular interiors, exploring the relationship between interior design theory and social and cultural values. Sources include historic interiors, literature and art, architectural and material culture studies. Reading, discussion, comparative analysis, and critical writing.

DEA 451 Seminar in Facility Planning and Management

Fall. 1 credit. S-U grades only. F. Becker, W. Sims. M 3:35-4:25. Series of seminars led by Cornell faculty and other facility management professionals. Topics include strategic space planning, space standards, office automation, project management, energy conservation, environmental protection and regulatory issues.

DEA 453 Planning and Managing the Workplace

Spring. 3 credits. Prerequisite: DEA 250 or permission of instructor. F. Becker. M 7:30-10:30. Intended for students interested in the planning, design, and management of facilities for complex organizations. The purpose of the course is to explore how characteristics of the workplace, including furniture and equipment and policies governing their use and allocation, affect individual and organizational effectiveness. Special topics, such as the human implications of new information technologies and work at home, are also covered.

DEA 454 Facility Planning and Management Studio

Spring. 4 credits. Prerequisite: DEA 459 or permission of instructor. Letter grades only. Minimum cost of materials, \$100. W. Sims. T R 1:25-4:25. For advanced undergraduates interested in facility planning and management. Purpose is to provide basic tools, techniques, and concepts useful in planning, designing, and managing facilities for large, complex organizations. Covers strategic and tactical planning for facilities, organizing to deliver facility management services, project management, space forecasting, space allocation policies, programming, site selection, building assessment, space planning and design, furniture specifications, and moves. Sociopsychological, organizational, financial, architectural, and legal factors are considered.

DEA 455 Research Methods in Human-Environment Relations

Fall. 3 credits. Prerequisites: DEA majors only or permission of instructor, and a statistics course. G. Evans. M W F 1:25-2:15. The course develops the student's understanding and competence in the use of research and analytical tools to study the relationship between the physical environment and human behavior. Emphasis is placed on selection of appropriate methods for specific problems and the policy implications derived from research. Topics include research design, unobtrusive and obtrusive data-collecting tools, the processing of qualitative and quantitative data, and effective communication of empirical research findings.

DEA 459 Programming Methods in Design

Fall. 3 credits. F. Becker. T R 11:15–1:10. Introduction to environmental programming. Emphasis on formulation of building requirements from user characteristics and limitations. Diverse methods for determining characteristics that will enable a particular environmental setting to support desired behaviors of users and operators. Methods include systems analysis, soft system, behavior circuit, behavior setting, and user characteristic approaches. Selection of appropriate methods to suit problems and creation of new methods or techniques are emphasized.

DEA 470 Environmental Analysis I: Applied Ergonomic Methods

Spring (even-numbered years). 3 credits. Prerequisite: DEA 325. A. Hedge. T R 2:30–4:00.

This course covers ergonomics methods and techniques and their application to the design of modern work environments. Emphasis is placed on understanding key concepts. Coverage includes conceptual frameworks for ergonomic analysis, systems methods and processes, a repertoire of ergonomics methods and techniques for the analysis of work activities and work systems. This course is the undergraduate section of DEA 670, which will share the same lectures but will meet for an additional hour. DEA 670 will have additional readings and projects.

DEA 499 Design VIII: Advanced Interior Design

Fall. 6 credits. Prerequisites: DEA 301, 302, 303, and 304. Minimum cost of materials, \$150; diazo machine fee, \$8 per semester. S. Danko. T R 12:20–4:25. Design–problem-solving experiences involving completion of advanced interior design problems. Problems are broken into five phases: programming; schematic design and evaluation; design development, including material and finish selection; design detailing; and in-process documentation and the preparation of a professional-quality design presentation.

DEA 600 Special Problems for Graduate Students

Fall or spring. Credit to be arranged. S-U grades optional. Department faculty. Independent advanced work by graduate students recommended by their special committee chair and approved by the head of the department and instructor.

DEA 643 American Vernacular Interiors

Spring (even-numbered years). 4 credits. Enrollment limited to 15 students. S-U option. Field trips \$50. Offered 1996. J. Jennings. T R 10:10–11:30.

A course intended for graduate students who want a more thorough grounding in the history of vernacular interiors than is provided by DEA 443. Each student is required to attend DEA 443 lectures, meet with the instructor and other graduate students for an additional class hour each week, and do additional readings and projects.

DEA 645 Design Process and Methods

Spring. 3 credits. Limited to 15 graduate and advanced undergraduate students. Prerequisite for undergraduates: permission of instructor. S. Danko. T 4:30–7:30. Focuses on thinking processes and techniques that support creative problem solving. Design methodologies of famous designers such as da Vinci, Ben Franklin, and Charles Eames will

be examined through discussions and applications to short studio problems by the students. Topics include a historical overview of the design process and methods in both professional practice and education, creative problem solving in management and design, perceptual blocks to creativity, and the inherent merits and pitfalls in the four realms of thinking: analytical, intuitive, synthetic, and evaluative.

DEA 648 Advanced Applications in Computer Graphics

Fall. 3 credits. Limited to 12 graduate and advanced undergraduate students. Prerequisites for undergraduates: DEA 301 or permission of instructor. Minimum cost of materials \$150. K. Gibson. T R 9:05–12:05.

Advanced use of computer technology to create and analyze interior environments. Emphasis will be on the use of 3-D modeling, animation, photorealistic rendering and emerging technologies to investigate dynamic design issues.

DEA 650 Programming Methods in Design

Fall. 4 credits. Recommended prerequisites: DEA 660, 652, and 656. F. Becker. T R 11:15–1:10.

A course intended for graduate students who want a more thorough introduction to environmental programming methods than is provided by DEA 459. Each student is required to attend DEA 459 lectures, meet with the instructor and other graduate students for an additional class each week, and do additional readings and projects. See DEA 459 for more detail.

DEA 651 Human Factors: Ergonomics-Anthropometrics

Fall. 4 credits. Recommended: DEA 150 and a 3-credit statistics course. A. Hedge. T R 9:05–11:00.

A course intended for graduate students who want a more thorough grounding in human factors than is provided by DEA 325. Each student is required to attend DEA 325 lectures, meet with the instructor and other graduate students for an additional class each week, and do additional readings and projects. See DEA 325 for more detail.

DEA 652 Human Factors: The Ambient Environment

Spring. 4 credits. Recommended: DEA 150. A. Hedge. T R 9:05–11:00.

A course intended for graduate students who want a more thorough grounding in human factors considerations than is provided by DEA 350. Each student is required to attend DEA 350 lectures, meet with the instructor and other graduate students for an additional class each week, and do additional readings and projects. For detailed description, see DEA 350.

DEA 653 Planning and Managing the Workplace

Spring. 4 credits. Prerequisite: DEA 250/660 or permission of instructor. F. Becker. M 7:30–10:30.

Intended for graduate students who want a more thorough grounding in the planning, design, and management of facilities for complex organizations than is provided by DEA 453. Each student is required to attend DEA 453 lectures, meet with the instructor and other graduate students for an additional class each week, and do additional readings and projects. See DEA 453 for more detail.

DEA 654 Facility Planning and Management Studio

Spring. 4 credits. Prerequisite: DEA 459 or permission of instructor. Letter grades only. Minimum cost of materials, \$100. For graduate students in facility planning and management. W. Sims. T R 1:25–4:25.

For description, see DEA 454.

DEA 656 Research Methods in Human-Environment Relations

Fall. 4 credits. Prerequisites: DEA majors only or permission of instructor, and a statistics course. G. Evans. M W F 1:25–2:15.

Intended for graduate students who want a more thorough understanding of the use of research to study the relationship between physical environment and human behavior than is provided by DEA 455. Each student is required to attend DEA 455 lectures, meet with the instructor and other graduate students for an additional class each week, and do additional readings and projects. See DEA 455 for more detail.

DEA 659 Seminar on Facility Planning and Management

Fall. 1 credit. For graduate students and advanced undergraduates interested in careers in facility planning and management. S-U grades only. F. Becker, W. Sims. M 3:35–4:25.

Series of seminars led by Cornell faculty members and other professionals directly involved in facility planning and management. Topics include strategic and tactical facility planning, space standards, project management, computer and facility management, facility maintenance and operations, energy conservation and building systems.

DEA 660 The Environment and Social Behavior

Fall. 4 credits. Prerequisite: DEA 150 or permission of instructor. Field trip fee \$65. G. Evans. T R 2:30–4:00.

Intended for graduate students who want a more thorough understanding of environmental form on social behavior than is provided by DEA 250. Each student is required to attend DEA 250 lectures, meet with the instructor and other graduate students for an additional class each week, and do additional readings and projects. See DEA 250 for more detail.

[DEA 668 Design Theory Seminar

Fall. 3 credits. Enrollment limited to 15 students. Staff. Not offered 1995–96. Directed toward advanced undergraduate and graduate students with interest in the theory of design. The purpose is to provide an understanding of major theoretical ideas underlying design movements of the twentieth century. Explores these ideas through readings, lectures by faculty and visitors, student presentations of research papers, and seminar discussions.]

DEA 670 Environmental Analysis I: Applied Ergonomics Methods

Spring (even-numbered years). 4 credits. Enrollment limited to 20. Prerequisite: DEA 651. A. Hedge. T R 2:30–4:00.

Intended for graduate students who want a more thorough understanding of applied ergonomics methods than is provided by DEA 470. Each student is required to attend DEA 470 lectures, meet with the instructor and other graduate students for an additional class each week, and do additional readings and projects. See DEA 470 for more detail.

[DEA 671 Environmental Analysis II: Indoor Air Quality Methods]

Spring (odd-numbered years). 3 credits.
Enrollment limited to 20. Prerequisite:
DEA 652. A. Hedge. T R 2:30-4:00.

This course provides in-depth coverage of the nature of indoor air pollutants and techniques for analyzing indoor air quality in modern work environments. Emphasis is placed on understanding key concepts in environmental exposure, toxicology, epidemiology and on understanding the procedures for assessing indoor air quality conditions. Coverage also includes detailed consideration of the design of modern ventilation systems.]

DEA 899 Master's Thesis and Research

Fall or spring. Credits to be arranged.
Prerequisite: permission of the chair of the graduate committee and the instructor.
S-U grades optional. Department graduate faculty.

HUMAN DEVELOPMENT AND FAMILY STUDIES COURSES

S. Hamilton, chair; S. Robertson, graduate faculty representative; J. Brumberg, undergraduate advising coordinator; C. Anderson, U. Bronfenbrenner, R. Canfield, S. Ceci, M. Cochran, S. Cornelius, D. Dempster-McClain, R. Depue, J. Doris, J. Eckenrode, J. Garbarino, J. Haugaard, C. Hazan, B. Koslowski, L. C. Lee, M. Lenzenweger, B. Lust, P. Moen, K. Pillemer, M. Potts, C. Raver, H. Ricciuti, J. Ross-Bernstein, R. Savin-Williams, C. Suci, E. Wethington

NOTE: Class meeting times are accurate at the time of publication. If changes are necessary, the department will provide new information as soon as possible.

HDFS 115 Human Development

Fall or summer. 3 credits. S-U grades optional. M W F 1:25-2:15. S. Ceci.

Provides a broad overview of theories, research methods, and current knowledge of human development from conception into adulthood. Course material primarily covers infancy and childhood with considerably less focus on adolescent and adult development. Topics include biological, intellectual, linguistic, social and emotional development as well as the cultural, social, and interpersonal contexts that affect developmental processes and outcomes in these domains.

HDFS 150 Families and the Life Course

Spring or summer. 3 credits. S-U grades optional. E. Wethington. M W F 1:25-2:15.

This course provides an introduction to social scientific research on family roles and functions. Families are examined in regard to how they appear in U.S. history, how they change over the life course, and how they are influenced by cultural and economic forces.

HDFS 216 Human Development: Adolescence and Youth

Spring or summer. 3 credits. Prerequisite: HDFS 115. S-U grades optional. Staff. T R 2:30-4:00.

Provides a broad overview of theories, issues, and research in the study of human development from early adolescence to early adulthood (youth). Attention is focused on the interplay of biological and cognitive factors, interpersonal relationships, social structure, and cultural values in shaping the

individual's development. The role of adolescence in both the individual's life course and the evolution of the culture as a whole is also considered. Familial, peer group, educational, and work contexts for development are discussed.

HDFS 218 Human Development: Adulthood and Aging

Spring. 3 credits. Prerequisite: HDFS 115. S-U grades optional. Staff. M W F 9:05-9:55.

Provides a general introduction to theories and research in adult development and aging. Psychological, social, and biological changes from youth through late adulthood are discussed. Both individual development within generations and differences among generations are emphasized.

[HDFS 241 History of Childhood in the United States]

Spring. Limited to 30 students. 3 credits. Not offered 1995-96. J. Brumberg.

An examination of childhood and adolescence in various historical contexts: Puritan New England, slave plantations, evangelical revivals, the Western frontier, Victorian families, reform schools, early high schools and colleges, the sexual revolution of the 1920s, immigrant communities, the Depression and World War II, the 1950s, and more recent social and cultural changes affecting families. Students will evaluate continuities and changes in the lives of American children as well as changing scientific ideas about children. Students have an opportunity to reflect on and write about their own childhood and adolescence. This course is designed to give students a humanities perspective on approaches to childhood central to many different disciplines.]

HDFS 242 Participation with Groups of Young Children

Fall or spring. 4 credits (3 credits possible, but not recommended). Limited to 20 students (limit depends on availability of placements and of supervision). Prerequisites: HDFS 115 and permission of instructor. S-U grades optional. J. Ross-Bernstein. W 10:10-12:05.

This course is designed to integrate developmental theories with supervised experience in child care centers, with the intention of enhancing the student's abilities to understand and to relate effectively with young children. Participation, observation, reflection, reading, writing, and sharing of viewpoints are some of the means used to these ends. Placements are in local nursery schools, day care centers, Head Start programs, and kindergartens.

HDFS 243 Participation with Groups of Children, Ages 6-12

Fall. 4 credits (3 credits possible, but not recommended). Limited to 20 students (limit depends on availability of placements and supervision). Prerequisites: HDFS 115 and permission of instructor during preregistration. S-U grades optional. Staff. W 12:20-2:15.

This course is designed to allow students to gain a working developmental perspective on the school-aged child (ages 6-12). Students will participate in area elementary schools for 6 hours per week as a classroom assistant, attend a weekly 2-hour resource and discussion seminar, and complete readings in developmental theory, current trends, and issues regarding children's learning and growth. The application of readings and

discussions to the field experience via written assignments will give the student the opportunity for a well-integrated understanding of the school-aged child.

HDFS 251 Social Gerontology: Aging and the Life Course

Spring. 3 credits. Limited to 60 students. Prerequisites: HDFS 150 or equivalent to be determined by instructor. S-U grades optional. D. Dempster-McClain. T R 10:10-11:40.

This course analyzes the social aspects of aging in contemporary American society from a life course perspective. Topics to be covered include: (1) An introduction to the field of gerontology, its history, theories, and research methods, (2) A brief overview of the physiological and psychological changes that accompany aging, (3) An analysis of the contexts (such as family, friends, social support, employment, volunteer work) in which individual aging occurs, including differences by gender, ethnicity, and social class. (4) The influences of society on the aging individual. Guest speakers will provide an introduction to various careers in the field of gerontology.

[HDFS 258 Historical Development of Women as Professionals, 1800 to the Present (also Women's Studies 238 and History 238, American Studies 258)]

Spring. 3 credits. S-U grades optional. Human ecology students must register for HDFS 258. Not offered 1995-96. J. Brumberg.

The historical evolution of the female professions in America (midwifery, nursing, teaching, librarianship, home economics, and social work) as well as women's struggles to gain access to medicine, law, and the sciences. Lectures, reading, and discussion are geared to identifying the cultural patterns that fostered the conception of gender-specific work, and the particular historical circumstances that created these different work opportunities. The evolution of "professionalism" and the consequences of professionalism for women, family structures, and American society are also discussed.]

[HDFS 259 Socialization, Social Control, and Deviance across the Life Course]

Spring. 3 credits. Prerequisites: HDFS 150 or Sociology 101 or Rural Sociology 101. Not offered 1995-96. Next offered spring 1997. E. Wethington.

Provides an overview of sociological theories and research on how social structures, values and relationships regulate individual behavior. Theories and research on social control, crime, delinquency, and creativity are emphasized.]

[HDFS 260 Personality Development]

Spring. 3 credits. Prerequisites: HDFS 115 or Psychology 101. Offered alternate years. Not offered 1995-96. C. Hazan.

An introduction to theory and research in the area of personality psychology, with special emphasis on development. Covers major influences—including genetic, environmental, and person-environment interactions—major theories, basic psychometric concepts, such as reliability and validity, and methods for measuring and assessing personality.]

HDFS 261 The Development of Social Behavior

Spring. 3 credits. Prerequisite: HDFS 115 or Psychology 128. Offered alternate years. C. Raver. T R 12:20-1:45.

Issues in the development of social behavior are viewed from the perspective of theory and research. An attempt is made to apply our understanding of social behavior to education, childrearing, and group behavior. Likely topics include bases of social behavior in infancy and early childhood, the role of parents, siblings and peers, the development of prosocial and aggressive behavior, the development and functioning of attitude and value systems, and the function and limits of experimental research in the study of social development.

HDFS 284 Introduction to Sexual Minorities

Fall. 3 credits. Prerequisite: one social science course. S-U grades optional.

R. Savin-Williams. M 7:30-10:00 p.m.

This course introduces students to theories, empirical scholarship, public policies, and current controversies with lesbian, gay, bisexual, transgender, sexual questioning, and other sexual minority populations. The major focus is on gay, lesbian, and bisexual development, lifestyles, and communities with additional emphasis on ethnic, racial, gender, and class issues. Requirements include reaction papers to the readings.

HDFS 300 Special Studies for Undergraduates

Fall or spring. Credit to be arranged. Permission required.

Special arrangement for course work to establish equivalency for courses not transferred from a previous major or institution. Students prepare a multicopy description of the study they want to undertake on a form available from the Student Services Office. The form, signed by both the instructor directing the study and the coordinator of undergraduate education, is filed at course registration or during the change-of-registration period.

HDFS 313 Problematic Behavior in Adolescence

Spring. 3 credits. Prerequisite: HDFS 115 or Psychology 101; HDFS 216 recommended. J. Haugaard. T R 2:30-4:00.

This course will explore several problematic behaviors of adolescence, including depression, drug abuse, eating disorders, and delinquency. Various psychological, sociological, and biological explanations for the behaviors will be presented. Appropriate research will be reviewed; treatment and prevention strategies will be explored. An optional discussion section will be available to students who would like an opportunity to discuss readings and lectures in greater depth.

HDFS 331 Learning in Children

Fall. 3 credits. Prerequisite: HDFS 115 or equivalent. Limited to 25 students. M. Potts. W 12:20-2:15.

Examines diverse theories and models of learning and their differing implications for real-world situations that require learning or relearning. Considers the interrelations of learning and development and of learning and intelligence. Through fieldwork, application is made to the assessment of learning processes in the cognitive domain and to implementation of the variables which affect learning.

HDFS 333 Cognitive Processes in Development

Spring. 3 credits. Prerequisite: HDFS 115 or equivalent. G. Suci. T R 10:10-11:40.

A survey of theories and problems in the development of selected cognitive processes: attention, perception, mediation processes, and language. The focus is on the first two years of life.

[HDFS 334 The Growth of the Mind

Spring. 4 credits. Open to undergraduate and graduate students. Graduate students should also enroll in HDFS 635, a supplemental graduate seminar. Prerequisites: A course in human experimental psychology, statistics, or HDFS 115 or equivalent; or permission of the instructor. S-U grades optional. Offered alternate years. Not offered 1995-96. B. Lust.

In this course the fundamental issues of cognition are introduced. What is the nature of human intelligence? of logical and scientific reasoning? How are knowledge and understanding acquired and represented in the human mind? What is the nature of mental representation? What are the cognitive characteristics of the mind at birth? What is the relation of the acquisition of knowledge and understanding to their final representation? What are the relations between language and thought? In the study of those issues, how can epistemology and experimental psychology be related through the experimental method?

Basic debates in the study of cognition are introduced and discussed throughout: for example, the roles of innateness and learning, the distinction between competence and performance, and the relation between induction and deduction in the acquisition of knowledge. Those psychological issues are set in a context of basic epistemological issues involving the tension between rationalism and empiricism.

The course will analyze Piaget's comprehensive theory of cognitive development and experimental results. Current research in cognitive development will be contrasted.]

HDFS 344 Infant Behavior and Development

Fall. 3 credits. Prerequisites: HDFS 115, a biology course, and a statistics course. Not open to freshmen. S. Robertson. T R 12:45-2:00.

Behavior and development from conception through the first two years after birth will be examined in traditional areas (e.g., perception, cognition, socioemotional, language, motor). The fundamental interconnectedness of these aspects of development will be strongly emphasized, as well as their relation to the biology of fetal and infant development. Topics with implications for general theories of development will be emphasized (e.g., the functional significance of early behavior, the nature of continuity and change, the role of the environment in development). Conditions which put infants at risk for poor development (e.g., premature birth, exposure to environmental toxins, maternal depression) and topics with current social, ethical, or political implications (e.g., infant day care, fetal rights) will also be considered. An emphasis on research methodology in the study of early behavior and development will be maintained throughout the course.

HDFS 346 The Role and Meaning of Play

Spring. 2 credits. Limited to 30 juniors and seniors. Prerequisite: HDFS 115. J. Ross-Bernstein. W 7:30-9:00 p.m.

The aim of this course is to examine the play of children ages three through seven. Through seminar discussions, workshops, films, and individualized research, the student will explore the meanings and validity of play in the lives of young children, the different ways that children play and the value of each, and the effect of the environment in enhancing and supporting play.

[HDFS 347 Human Growth and Development: Biological and Behavioral Interactions (also Biology and Society 347 and Nutritional Sciences 347)]

Spring. 3 credits. Prerequisites: Biological Sciences 101 or 109 or equivalent, and HDFS 115 or Psychology 101. Offered alternate years. Limited to 150 students.

Not offered 1995-96. Next offered spring 1997. S. Robertson and J. Haas.

This course is concerned with the interrelationships between physical and psychological growth and development in humans, particularly during infancy. Intrinsic and extrinsic causes of variations in growth, including various forms of stimulation, are considered. In addition, the consequences of early growth and its variations for current and subsequent behavioral, psychological, and physical development are examined. The interaction between physical and behavioral or psychological factors is emphasized throughout the course.]

HDFS 348 Advanced Participation with Children

Fall or spring. 4 or 8 credits. Limited to 20 students (limit depends on availability of placements and supervision). Prerequisites: HDFS 115 and HDFS 242, 243 or 331; and permission of instructor. Recommended: HDFS 346. S-U grades optional. J. Ross-Bernstein. T 12:20-2:15.

An advanced, supervised field-based course, designed to help students deepen and consolidate their understanding of children. Students are expected to define their own goals and assess progress with supervising teachers and instructor; to keep a journal; and to plan, carry out, and evaluate weekly activities for children in their placement. Conference group and readings focus on contexts of development and on ways to support children's personal and interpersonal learning. Each student is expected to do a presentation and paper on a self-selected topic within the scope of the class. Participation is in settings that serve typical and/or special needs children from two to ten years of age and provide education, care, or special-purpose interventions for them.

HDFS 354 Families in Cross-cultural Perspective

Spring. 3 credits. Prerequisites: HDFS 115 or HDFS 150 or Rural Sociology 101 or 102 or Anthropology 101 or 102, or equivalent. S-U grades optional. Staff. M W F 10:10-11:00.

This course will be taught with an emphasis on the life cycle of families and individuals. Focus will be on the rites/rituals, both subtle and obvious, that mark an individual's movement through the stages of life. The approach will be both anthropological and historical. Students will see correlations between diverse family forms in the United States and around the world.

[HDFS 359 American Families in Historical Perspective (also Women's Studies 357, History 359, American Studies 359)]

Spring. 3 credits. Prerequisite: HDFS 150 or one 200-level social science or history course. S-U grades optional. Human ecology students must register for HDFS 359. Not offered 1995-96. J. Brumberg. This course provides an introduction to and overview of problems and issues in the historical literature on American families and the family life cycle. Reading and lectures demonstrate the pattern of American family experience in the past, focusing on class, ethnicity, sex, and region as important variables. Analysis of the private world of the family deals with changing cultural conceptions of sexuality, sex roles, generational relationships, stages of life, and life events. Students are required to do a major research paper on the history of their family, covering at least two generations, and demonstrating their ability to integrate life-course development theory, data drawn from the social sciences, and historical circumstances.]

[HDFS 362 Close Relationships across the Lifespan]

Fall. 3 credits. Prerequisite: HDFS 115 or Psychology 101. S-U grades optional. Not offered 1995-96. C. Hazan. Examines relationships from a psychological perspective, drawing on theoretical and empirical work in developmental, clinical, and social psychology. A central goal is to define and explain the basic structure, functions, and dynamics of human relationships. Covers such topics as interpersonal attraction, mate selection, commitment, intimacy, and the role of relationships in physical and mental health.]

HDFS 370 Experimental Psychopathology

Spring. 3 credits. Limited to sophomores, juniors, and seniors. Prerequisites: HDFS 115, Psychology 101, or Education 110; a course in statistics (e.g., Psych 350, Soc 301, Educ 352 or 353, Ag Ec 310 or equivalent); and an introductory biology course. Letter grades only. M. Lenzenweger. T R 10:10-11:40. A research-based survey of the cognitive, emotional, and biological aspects of psychopathology across the life span. The major mental illnesses will be covered, including schizophrenia, anxiety disorders, affective disorders, and personality disorders as well as psychopathological disorders of childhood. Emphasis will be placed on the development of psychopathology, current theories and models of etiology, and intervention strategies. This course is intended to be a rigorous introduction to the scientific study of psychopathology and psychopathological development; minimal attention to psychotherapy.

HDFS 397 Experimental Child Psychology

Fall. 4 credits. Prerequisites: HDFS 115 or Psychology 101 and one course in statistics. Intended primarily for students interested in entering graduate programs involving further research training. Limited to 16 students. L. Lee. M W 10:10-12:05. A study of experimental methodology in research with children. Includes lectures, discussions, and practicum experiences covering general experimental design, statistics, and styles and strategies of working with children.

HDFS 400-401-402-403 Special Studies for Undergraduates

Fall or spring. Credits to be arranged. Enrollment limited to juniors and seniors with a minimum 3.0 G.P.A. Permission required. Prerequisites: either HDFS 115, 150, and two intermediate level HDFS courses, or four courses in psychology or sociology. S-U grades optional. For advanced independent study by an individual student or for study on an experimental basis with a group of students in a field of HDFS not otherwise provided through course work in the department or elsewhere at the university. Students prepare a multicopy description of the study they want to undertake, on a form available from the department office in NG14. This form must be signed by the instructor directing the study and the student's faculty adviser and submitted to NG14 MVR, the Office of Undergraduate Education. After clearance that all prerequisites are met, the student picks up the form in NG14 to file at course registration or within the change-of-registration period after registration. To ensure review before the close of the periods, early submission of the special studies form to the Office of Undergraduate Education is necessary. Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study (guidelines for each are available in NG14 Martha Van Rensselaer Hall):

HDFS 400 Directed Readings

Prerequisites: In addition to the general prerequisite courses, a statistics or methods course and at least one course directly linked to the area of study. Permission required. For study that predominantly involves library research and independent study.

HDFS 401 Empirical Research

Prerequisites: In addition to the general prerequisite courses, a statistics or methods course and at least one course directly linked to the area of study. Permission required. For study that predominantly involves data collection and analysis, or laboratory or studio projects.

HDFS 402 Supervised Fieldwork

Prerequisites: In addition to the general prerequisite courses, an observation or participation course. Permission required. For study that involves both responsible participation in a community setting and reflection on that experience through discussion, reading, and writing. Academic credit is awarded for this integration of theory and practice.

HDFS 403 Teaching Apprenticeship

Prerequisites: In addition to the general prerequisite courses, must have taken the course or equivalent and received a grade of B+ or higher. Permission required. For study that includes assisting faculty with instruction.

HDFS 417 Female Adolescence in Historical Perspective (also Women's Studies 438 and History 458)

Spring. 3 credits. Limited to 50 students. Prerequisites: HDFS 258 or 359 or a 200- or 300-level history or women's studies course. Permission of instructor required. J. Brumberg. W 2:00-4:25.

A reading, writing, and discussion course that will attempt to answer a basic historical question that has consequence for both contemporary developmental theory and social policy: How has female adolescence in the United States changed in the past 200 years? The focus will be on the ways in which gender, class, ethnicity, and popular culture shape adolescent experience. Although the required readings are primarily historical in nature, students are encouraged to think about the interaction of biology, psychology, and culture. Students are required to do a primary source research paper.

HDFS 431 Cognition and Aging

Fall. 3 credits. Enrollment limited to 25 juniors and seniors or by permission of instructor. Prerequisites: HDFS 115 OR Psychology 101 and one higher level course in cognition OR aging. A course in statistics is strongly recommended. S-U grades optional. G. Suci. T R 10:10-11:40. Literature relevant to current empirical studies aimed at cognition as a function of aging in adults will be selectively surveyed. Topics will include attention, perception, memory, conceptualization, intelligence and wisdom. An aim will be to identify possible mechanisms that underlie observed age-related decrement in cognitive functioning as well as possible approaches to improving functioning in the aged. Students will be asked to design empirical research aimed at an aging/cognition question.

[HDFS 432 Cognitive Development and Education]

Spring. 3 credits. Prerequisite: HDFS 115 or equivalent. Limited to 20 students. Not offered 1995-96. M. Potts. This course defines basic cognitive processes that underlie education (for example, linguistic processes that underlie language comprehension and production; numerical processes that underlie mathematics; perceptual processes that underlie reading) and reviews research on the development and learning of these processes in children. A laboratory component focuses on assessment and facilitation of cognitive competencies as they bear on one educational subject.]

HDFS 436 Language Development (also Psychology 436 and Linguistics 436)

Spring. 4 credits. Open to undergraduate and graduate students. Graduate students should also enroll in HDFS/LING 633, a supplemental graduate seminar. Prerequisite: at least one course in developmental psychology, cognitive psychology, cognitive development, or linguistics. S-U grades optional. Offered alternate years. B. Lust. T R 3:30-4:25.

This course surveys basic issues, methods, and research in the study of first-language acquisition. Major theoretical positions in the field are considered in the light of experimental studies in first-language acquisition of phonology, syntax, and semantics from infancy on. The fundamental issues of relationships between language and thought are discussed, as are the fundamental linguistic issues of Universal Grammar and the biological foundations for language acquisition. The acquisition of communication systems in nonhuman species such as chimpanzees is addressed, but major emphasis is on the child.

[HDFS 438 Thinking and Reasoning]

Spring. 3 credits. Prerequisite: HDFS 115 or Psychology 101. Not offered 1995-96. B. Koslowski.

The course will examine problem solving and transfer, pre-causal thinking, logical thinking, practical syllogisms, causal reasoning, scientific reasoning, theories of evidence, expert vs. novice differences, and non-rational reasoning. Two general issues will run through the course: the extent to which children and adults approximate the sorts of reasoning that are described by various types of models, and the extent to which various models accurately describe the kind of thinking that is required by the types of problems and issues that arise and must be dealt with in the real world.]

HDFS 439 Cognitive Development: Infancy through Adolescence

Fall. 3 credits. Prerequisites: HDFS 115 or Psychology 101. Letter grades only. B. Koslowski. W 2:00-4:25.

The course will be an overview of current and classic issues and research in cognitive development. Central topics of both "hard cognition" (e.g., information processing and neuropsychological functioning) and "soft cognition" (e.g., problem solving, concepts and categories) will be covered. Selected topics will be linked to methodological issues and to important social issues such as cross-cultural cognitive development and putative racial and social class differences.

HDFS 440 Internship in Educational Settings for Children

Fall or spring. 8-12 credits. Prerequisites: HDFS 115, 242, or 243 or 331 and 348. Recommended: HDFS 346. Permission of instructor required. S-U grades optional. J. Ross-Bernstein.

Opportunity to integrate theory with practice at an advanced level and to further develop understanding of children ages two to ten and their families. Interns will function as student teachers in a preschool or elementary school classroom and participate in curriculum planning, evaluation, staff meetings, home visits, parent conferences, and parent meetings. Supervision by head teacher and instructor. Students are expected to define their own goals and to assess their progress, to do assigned and self-directed readings, and to keep a critical incident journal.

HDFS 451 Nontraditional Families and Troubled Families

Fall. 3 credits. Limited to 30 students. Prerequisites: HDFS 115 and 150. Letter grades only. J. Haugaard. T R 8:30-9:55.

This is an advanced course designed to explore the functioning of families. The first part of the course examines family system theory and how it relates to our understanding of all families. Four types of families are then examined: two nontraditional families (e.g., adoptive families) and two troubled families (e.g., families with a chronically ill child).

[HDFS 456 Families and Social Policy]

Spring. 3 credits. Prerequisite: one course in the area of the family or in sociology. S-U grades optional. Not offered 1995-96. P. Moen.

An examination of the intended and unintended family consequences of governmental policies, using case studies in areas such as social welfare, day care, and employment. The policy implications of changes in the structure and composition of families are also considered.]

HDFS 457 Health and Social Behavior

Fall. 3 credits. Prerequisites: HDFS 115 or HDFS 150 or HSS 101 and a course in statistics. Letter grades only.

E. Wethington. M W F 10:10-11:00.

This course critically examines theories and empirical research on the relationship between social structure and physical and mental health. The lectures and readings focus on family structure, social support, and social stress, all of which are associated with physical health, mental health, and health behaviors.

[HDFS 461 The Psychology of Television]

Spring or summer. 3 credits. Limited to 100 students. Preference given to juniors and seniors. Prerequisite: a developmental or psychology course; HDFS 115 or Psychology 101 preferred. Not offered 1995-96. Staff.

This course offers a historical and topical survey of the research literature regarding the influence of television. Topics include (1) the introduction of television from 1950 to 1960 and its direct effects, (2) the audience for television, (3) the content of television, (4) behavioral mechanisms of influence: imitation, disinhibition, arousal/desensitization, (5) the psychological research of the 1960s and 1970s; cognitive mechanisms of influence; mainstreaming and resonance; formal features, comprehension, and perceived reality; current issues in research from 1980 on; the role of advertisements; government policies and advertisements; and television over the life span.]

HDFS 464 Sexual Minorities and Human Development

Spring. 3 credits. Limited to 15 students. Permission of instructor required. R. Savin-Williams. T 2:00-4:25.

The first half of the course covers topics of a fairly general nature regarding theoretical, research, and applied issues on sexual minorities. In the second half of the course, students will determine the content through their selection of particular topics that interest them. The success of the course depends on students feeling personally engaged and committed to the course content. Because of the multidisciplinary nature of the course, it is hoped that students from a variety of backgrounds in disciplines, gender, sexual orientation, ethnicity, race, class, and religious affiliation will feel comfortable in the course.

HDFS 466 Neurobiology of Personality and Psychopathology

Fall. 3 credits. Limited to 30 students. Prerequisites: HDFS 115 or Psychology 101, Psychology of Psychopathology (HDFS 370 or Psychology 325), a semester of biology OR biological psychology. Letter grades only. R. Depue. W 2:00-4:25.

For juniors and seniors who have an interest in the neurobiology of behavior. Course material is presented within an evolutionary biology perspective, where the development of neurobehavioral systems as a means of adapting to critical internal and external stimuli is explored. Focus is on the general role played by the biogenic amines (dopamine, norepinephrine, and serotonin) and opiates in personality and psychopathology. Specifically, the relation of dopamine and positive emotionality, norepinephrine and negative emotionality, serotonin and behavioral stability, and opiates and social reward-attachment is explored in the area of

personality. The manner in which these neurotransmitters may also be involved in disorders of affect, anxiety, personality, obsessive compulsion, and autism, respectively, is covered. The manner in which environmental influences across the lifespan may be coded in the brain and influence the development of personality and psychopathology is explored. Approximately 24-30 papers and chapters will be read and discussed.

[HDFS 470 Advanced Experimental Psychopathology]

Fall. 3 credits. Limited to 20 juniors or seniors; not open to graduate students. Prerequisites: HDFS 370, statistics (Psychology 350 preferred), introductory biology or neurobiology. Permission of instructor required. Letter grades only. Not offered 1995-96. M. Lenzenweger.

This course is intended to be an opportunity for advanced undergraduate students (i.e., juniors and seniors) to explore rigorously and in depth the empirical research literature concerning several specific forms of severe psychopathology. The course will focus on schizophrenia, affective illness, and personality disorders, particularly borderline personality disorder. Each syndrome will be discussed in terms of phenomenological and classification issues, etiological factors, and developmental trajectory within the context of the diathesis-stress model of psychopathological development.]

HDFS 471 Child Development and Psychopathology

Fall. 3 credits. Limited to 60 advanced-level students. Prerequisites: a basic course in psychopathology or instructor's permission. Letter grades only. J. Haugaard. T R 2:30-4:25.

This class will explore the development and process of mental, emotional, and behavioral disorders in children such as mental retardation, autism, and attention deficit disorders. Topics will include (1) the classification of mental disorders; (2) biological, psychological, and sociological theories regarding the development and maintenance of mental disorders; (3) prevalence and etiology of childhood mental disorders, and (4) therapeutic and preventive interventions. If there is sufficient enrollment, an optional discussion section will be available to those students who would like an opportunity to discuss readings and lecture material in greater depth.

HDFS 472 Typical and Atypical Intellectual Development

Spring. 3 credits. Prerequisites: HDFS 115, a course in statistics, and a course in biology. S. Ceci. TBA.

This course provides an intensive historical examination of both normal and abnormal intelligence, focusing on the antecedents of contemporary views of the heritability of intelligence, brain-behavior linkages, expertise, generality, and cognitive modifiability. It concludes with an examination of current theories, with an emphasis on the instructor's own bioecological theory.

[HDFS 482 Child Development and Social Policy]

Fall. 3 credits. Enrollment limited to 25 HDFS juniors and seniors or by permission of instructor. Prerequisites: HDFS 115, HDFS 150, and a course in statistics. HDFS 260 OR 261 strongly recommended. Letter grades only. Offered alternate years. Not offered 1995-96. C. Raver.

Course work and seminar discussion emphasize the integration of basic research in young children's social and emotional development with intervention- and prevention-oriented research. The course also examines theoretical models of the relations between risk and resilience in child development, family functioning, community and culture. Policies in the domains of parenting, early childhood education, family and community violence, poverty, and child care are analyzed. Broad questions regarding the identification of social problems and the design of solutions are considered within cultural and historical contexts.]

HDFS 498 Senior Honors Seminar

Fall. 1 credit. Required for, and limited to, seniors in the HDFS honors program. S-U grades only. R. Canfield. TBA. This seminar is devoted to discussion and presentation of honors theses being completed by the senior students.

HDFS 499 Senior Honors Thesis

Fall or spring. Credit to be arranged. Prerequisite: permission of thesis adviser and coordinator of honors program. S-U grades optional. Department faculty.

Topics Courses

Fall or spring. 2-4 credits. Prerequisites and enrollment limits vary with topic being considered in any particular term. Permission of instructor required.

This series of courses provides an opportunity for undergraduates to explore an issue, a theme, or research in the areas of departmental concentration. Topics vary each time the course is offered. Descriptions are available at the time of course registration. Although the courses are usually taught as seminars, a subject may occasionally lend itself to lecture, practicum, or other format.

HDFS 215, 315, 415 Topics in Adolescent and Adult Development

HDFS 235, 335, 435 Topics in Cognitive Development

HDFS 245, 345, 445 Topics in Early-Childhood Development and Education

HDFS 255, 355, 455 Topics in Family Studies and the Life Course

HDFS 265, 365, 465 Topics in Social and Personality Development

HDFS 275, 375, 475 Topics in Developmental Psychopathology

HDFS 285, 385, 485 Topics in the Ecology of Human Development

The Graduate Program

HDFS graduate courses are only open to undergraduates with instructor's permission.

General Courses

HDFS 610 Processes in Human Development

Spring. 3 credits. Limited to 20 students. Open to graduate students and juniors and seniors in HDFS and related fields with recommendation from a faculty member and instructor's permission. Prerequisite: a minimum of one course in statistics. Letter grades only. U. Bronfenbrenner. W 2:00-4:25.

This course focuses on research that illuminates processes of human development as a function of organism-environment interaction through the life course. Topics to be examined will be drawn from the following: the ecology of cognitive development, developmentally instigative characteristics of persons and environments; developmental processes in males and females; activity and work as developmental processes; intimate relationships as contexts of development; developmental processes in adulthood. The final selection will be responsive to student interests.

[HDFS 617 Adolescence

Spring. 3 credits. Not offered 1995-96. Staff.

Critical examination of seminal theoretical and empirical writings on adolescent development. Empirical research on specific questions chosen by students is considered in the light of these approaches.]

[HDFS 631 Cognitive Development

Fall. 3 credits. Letter grades only. Offered alternate years. Not offered 1995-96. Staff.

Faculty members involved in the course will present their area of specialization in cognitive development. These areas will include perception, attention, memory, language, thinking and reasoning, learning, creativity, and intelligence.]

[HDFS 640 Infancy

Fall. 3 credits. Not offered 1995-96. Next offered fall 1996. S. Robertson.

Development in infancy will be examined through a critical review of key research and theory in selected aspects of neurobehavior, perception, cognition, language, emotion, and social relationships. Theoretical issues to be considered include the role of experience in early development, sensitive periods, continuity and discontinuity in development, and the functional significance of early behavior. Some of the conditions that put infants at risk for poor development will also be considered, such as premature birth, perinatal medical complications, and exposure to environmental toxins. The course will combine perspectives from developmental psychology and psychobiology.]

[HDFS 641 Early-Childhood Development and Education

Fall. 3 credits. Not offered 1995-96. M. Potts.

Survey of major issues in the theoretical and research literature of early-childhood education.]

[HDFS 650 Contemporary Family Theory and Research

Fall. 3 credits. Not offered 1995-96. Next offered fall 1996. E. Wethington.

Sociological and social psychological theories and research in the area of the family are examined with reference to the relationship between the family and society, the processes of socialization and social control, the reproduction of gender and social class, and social group rates of deviance and psychological disorder.]

[HDFS 660 Social Development

Spring. 3 credits. S-U grades optional. Not offered 1995-96. C. Raver.

This course is designed to provide both broad and in-depth training in the areas of social and emotional development during infancy and childhood. It will cover most of the

major topic areas and theoretical orientations. Consideration will be given to basic influences on socioemotional development—biological, social, and cultural. Coverage will include normative development as well as the origins and nature of individual differences. We will explore such fundamental issues and questions as: What are emotions? What role do they play in the development and organization of personality? What are the effects of early social relationships on emotional regulation? When and how does the self-system emerge? Emphasis will be on the processes—both internal and external—that help determine the course and outcome of development.]

HDFS 670 Experimental Psychopathology

Spring. 3 credits. Prerequisite: an undergraduate course in abnormal psychology or psychopathology; a course in multivariate statistics; and substantive course work in neurobiology or related biological science. M. Lenzenweger. TBA.

Overview of current theories and empirical research on functional and organically based psychological disorders. Topic areas to be covered include autism, schizophrenia, anxiety disorders, affective disorders, and personality disorders. Focus is on the developmental and etiology of psychopathology.

Topical Seminars

Seminars offered irregularly, with changing topics and instructors. Content, hours, credit, and instructors to be announced. Seminars offer concentrated study of specific theoretical and research issues.

HDFS 618 Seminar in Adolescence and Adult Development

Topics include peer relations, parent-teen relationships, self-esteem, youth and history, work, and moral development.

HDFS 633 Seminar on Language Development

Topics include acquisition of meaning in infancy, precursors of language in early infancy, and atypical language development.

HDFS 635 Seminar in Cognitive Development

Topics include early attention, perception, memory, and communication. Assessment and intervention in relation to these processes will be considered when possible.

HDFS 645 Seminar on Infancy

Topics covered in depth include the role of emotions in early development, infant stimulation and early experience, and the assessment of infant developmental competencies.

HDFS 646 Seminar in Early-Childhood Development and Education

Topics include analysis of models and settings, design of assessment techniques, program evaluation, and early childhood in a cross-cultural context.

HDFS 655 Seminar in Family Studies and the Life Course

Topics include the sociology of marital status, the single-parent family, work-family linkages, women and work, and families and social change.

HDFS 665 Seminar in Personality and Social Development

Focuses on selected issues related to personality and social development. The issues selected vary each year according to current importance in the field and student interests.

HDFS 675 Seminar in Developmental Psychopathology

Topics include learning disabilities, therapeutic interventions in atypical development, child abuse and maltreatment, family factors in the etiology of functional disorders, and cognitive characteristics of atypical groups.

HDFS 685 Seminar in Human Development and Family Studies

Topics include development of self-concept, sex-role identity, observational methods, and interviews in developmental research.

HDFS 690 Seminar on Ecology of Human Development

Topics include the institutional setting as a determinant of behavior, the poor family, and the identification and measurement of ecological variables.

Individualized Special Instruction**HDFS 700-706 Special Studies for Graduate Students**

Fall or spring. Credits and hours to be arranged. S-U grades at discretion of instructor.

Independent advanced work by graduate students recommended by their Special Committee chair with approval of the instructor.

HDFS 700 Directed Readings

For study that predominantly involves library research and independent study.

HDFS 701 Empirical Research

For study that predominantly involves collection and analysis of research data.

HDFS 702 Practicum

For study that predominantly involves field experience in community settings.

HDFS 703 Teaching Assistantship

For students assisting faculty with instruction. Does not apply to work for which students receive financial compensation.

HDFS 704 Research Assistantship

For students assisting faculty with research. Does not apply to work for which students receive financial compensation.

HDFS 705 Extension Assistantship

For students assisting faculty with extension activities. Does not apply to work for which students receive financial compensation.

HDFS 706 Supervised Teaching

For advanced students who assume major responsibility for teaching a course. Supervision by a faculty member is required.

HDFS 899 Master's Thesis and Research

Fall or spring. Credit to be arranged. S-U grades only. Prerequisite: permission of thesis adviser.

HDFS 999 Doctoral Thesis and Research

Fall or spring. Credit to be arranged. S-U grades only. Prerequisite: permission of thesis adviser.

HUMAN SERVICE STUDIES COURSES

C. Shapiro, chair; B. L. Yerka, graduate faculty representative; D. Tobias, undergraduate advising coordinator; J. Allen, D. Barr, R. Battistella, R. Bounous, J. Ford, K. Grazier, J. Greene, A. Hahn, R. House, A. Kabcenell, J. Kuder, C. McClintock, M. Minot, B. J. Mueller, A. Parrot, K. Pryor, E. Rodriguez, L. Street, J. Tiffany, W. Trochim, R. J. Babcock, Emeritus, L. A. Noble, Emerita, J. Ziegler, Emeritus

NOTE: Class meeting times are accurate at the time of publication. If changes are necessary, the department will provide new information as soon as possible.

HSS 100 Skills for Learning in the Field

Fall and spring. 3 credits. Instructor's permission required. Open to all levels, undergraduate and graduate. Limited to 30 students. R. Bounous. T R 2:30-4:25.

Students learn to be self-directed learners and to integrate theory and experience. Topics include experiential learning, participant observation, interpersonal communication, critical analysis, and empowerment. These ideas and skills are learned through participation in CLASP, an adult literacy program.

HSS 101 Human Services in Contemporary Society

Fall. 3 credits. Recommended for freshmen and first-year transfer students. D. Barr. T R 10:10-11:25.

A lecture and discussion course designed as an introduction to the community base of services. Current and historical human services are examined. Emphasis is placed on social services, education, health, and criminal justice. Barriers to service delivery are discussed, such as racism, sexism, classism, sexual preference, physical disability, and age. Contemporary issues that impact on service delivery will also be discussed with attention to the relationship between direct service and public policy.

HSS 203 Groups and Organizations

Spring. 3 credits. Enrollment limited to 125 students. L. Street. M W F 10:10-11:00.

A basic course in the social psychology of groups and human service organizations. Study of the human service organization focuses on individual, group, and organization interface in terms of such issues as the perception of roles, norms, communication, power, leadership, and other issues. Students are expected to learn about the basic concepts and propositions that provide insight into organizational issues that confront members of organizations. Exercises are used to heighten understanding of group and organizational behavior.

HSS 210 The Elements of Helping

Fall and spring. 3 credits. Limited to 60 students. Priority given to HSS majors. S-U optional. Prerequisite: Attendance at first class meeting mandatory. C. Miller. W 1:25-4:25.

An introduction to the theoretical and practical aspects of human service processes. Included is an overview of the helping relationship covering roles, characteristics, relationships, dilemmas, and career issues of helpers. The course focuses on understanding and development of helping skills. Through role playing and exercises, students deal with

basics such as attending, listening, responding, empathy, respect, genuineness, and confronting. Other topics include self-awareness, learning, communication, and conflict management. The course includes an overview of some of the major theories of helping. The theory base underlying principles taught in the course is general systems theory.

HSS 225 Education as a Human Service

Fall and spring. 3 credits. M. Minot. M W F 11:15-12:05.

An introductory course concerned with the role of the educator as a professional provider of preventive and remedial intervention through knowledge that results in intentional changes in cognitive, affective, or psychomotor skills of individuals. Educators, in collaboration with other human service professionals, facilitate human growth and development. The course includes an overview of educational programs that use human ecology content in schools and other selected human service delivery systems and settings. Emphasis is placed upon the competencies and responsibilities of professionals assuming the educative role.

HSS 246 Determinants of Behavior

Fall. 3 credits. Prerequisites: introductory sociology and introductory psychology and HDFS 115. Enrollment limited to 45. Priority given to social work majors. B. J. Mueller. M W F 2:30-3:20.

This course provides an interdisciplinary knowledge base for human service professionals. We examine social behavior in the human environment from ecological, ethological, historical, cultural, and social system perspectives. Applications are made to professional practice at the micro level (counseling with individuals and families or other small groups) and at the macro level (social planning and policy formulation for vulnerable groups in our society).

HSS 280 Racism in American Society

For description, see AS&RC 280. D. Barr.

HSS 292 Research Methods

Spring. 3 credits. W. Trochim. M W 2:30-3:55.

Students will learn the logic and methods of social science research and develop skill in transforming issues of interest to them into researchable questions. Readings, written assignments, and in-class exercises focus on stating hypotheses, designing studies and samples to test hypotheses, measuring variables, and simple statistical analysis. HSS majors should take no later than their junior year.

HSS 300 Special Studies for Undergraduates

Fall or spring. Credit to be arranged. Special arrangement for course work to establish equivalency for training in a previous major or institution. Students prepare a multicopy description of the study they want to undertake on a form available from the Student Services Office. This form, signed by both the instructor directing the study and the head of the department, should be filed at course registration during the change-of-registration period.

HSS 315 Human Sexuality

Spring. 3 credits. Limited to 500 students. Prerequisite: an introductory course in human development and family studies, psychology, or sociology (or equivalent social science course). Recommended: one course in biology. A. Parrot. T R 2:30-3:45.

The aim of this course is to provide students with an understanding of the interactions and interrelationships of human behavior that influence sexual development and behavior. The course will focus on the evolution of sexual norms, cross-cultural customs, legislation within changing sociopolitical systems, and delivery of services related to sexual issues, needs, and/or problems. Future trends in sexuality will be addressed. Biological and developmental components of human sexuality will also be addressed. An underlying issue is the influence of our social and cultural system on the development of sexual needs, standards, and values. Research and theory in human sexuality will be explored in an interdisciplinary approach drawing on human and organizational behavior, biology, history, communication arts, education, research theory, law, sociology, and psychology.

[HSS 325 Health-care Services and the Consumer]

Fall. 3 credits. Prerequisite: an introductory course in human services or health or biology. S-U grades optional. Next offered 1996-97. A. Parrot. T R 12:20-1:45.

This course is an introduction to health care services and will present developments in the health field that affect the availability and kinds of health services. Emphasis is placed on interrelationships between types of practitioners, institutions and agencies, and the part each can play in prevention, diagnosis, and treatment of disease and disability. Focus will include historical and current trends, quality health care, consumer issues, cultural concerns, ethical issues, politics and policies, and the contemporary problems of health care.]

HSS 330 Ecology and Epidemiology of Health

Spring. 3 credits. S-U grades optional. Limited to 30 students. E. Rodriguez. T R 10:10-11:25.

Ecological and epidemiological approaches to the problems of achieving human health within the physical, social, and mental environment. The course introduces epidemiological methods to the students and surveys the epidemiology of specific diseases such as AIDS, hepatitis, Legionnaires' disease, plague, cancer, herpes, and chlamydia. Application of epidemiology to health care will be discussed.

HSS 360 Introduction to Program Planning and Development

Fall and spring. 3 credits. M. Minot. M W F 9:05-9:55.

The course provides an introduction to program planning and development in the delivery of human services. Models of program planning, development, and delivery will be analyzed in relation to practice. The processes of conceptualizing a program and the context of planning and development (political, organizational, economic, and social) will be examined. Basic tools and techniques available to planners will be identified and selected skills developed.

Issues related to ethics, power/authority, confidentiality, and accountability will be included. Professional roles and competencies needed will be highlighted throughout the course. Students will apply the planning and development process to individual projects.

HSS 370 Social Welfare as a Social Institution

Fall. 3 credits. J. Allen. M W F 9:05-9:55. A philosophical and historical introduction to social welfare services. The course reviews the historical, social and political contexts within which social welfare programs and the profession of social work have evolved. It discusses the political and ideological processes through which public policy is formed and the ways in which policies are translated into social welfare programs. Basic issues in welfare are discussed through present program designs, public concerns, and the interrelationships and support of services in the community.

HSS 400-401-403 Special Studies for Undergraduates

Fall or spring. Credits to be arranged. S-U grades optional.

For independent study by an individual student in advanced work in a field of HSS not otherwise provided in the department or elsewhere at the university, or for study on an experimental basis with a group of students in advanced work not otherwise provided in the department or at the university. Students prepare a multicopy description of the study they want to undertake on a form available from Student Services. This form must be signed by the instructor directing the study and the department chair and filed at course registration or within the change-of-registration period after registration. To ensure review before the close of the course registration or change-of-registration period, early submission of the special-studies form to the chair is necessary. Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study.

HSS 400 Directed Readings

For study that predominantly involves library research and independent readings. Directed readings may incorporate experiential learning.

HSS 401 Empirical Research

For study that predominantly involves data collection and analysis or laboratory or studio projects. Independent research may incorporate experiential learning.

HSS 403 Teaching Apprenticeship

Prerequisite: Students must have taken the course (or equivalent) in which they will be assisting and have demonstrated a high level of performance. For study that includes assisting faculty with instruction.

HSS 414 Professional Internship in Human Service Studies

Fall, spring, or summer. 4-7 credits. Limited to juniors and seniors majoring in human service studies or permission of instructor. Prerequisite: HSS 100. Precourse enrollment required. D. Tobias. T 1:30-4:25.

Students intern for a minimum of 10 hours a week in a human service organization and attend a weekly seminar or office hours with a focus on integrating classroom and field-based learning. The course is structured as an

opportunity for students to learn experientially and, at the same time, provide meaningful services to human service organizations. Interns are expected to take active roles in structuring, monitoring, and assessing their learning under the guidance of a faculty instructor.

HSS 417 Power and Empowerment in Human Services

Spring. 3 credits. Limited to 20 students. D. Barr. T R 10:10-11:25.

The course will take a theoretical world view of power and the historically colonial relationship between the American ruling class and other people. The three dimensions of power will be used as the framework for analysis. The relationships among social class, race, sex, and power will be under study. In addition, the class will explore the nature of empowerment and new theories of power and empowerment.

HSS 426 Crime and Crime Policy

Fall. 3 credits. S-U grades optional. Limited to 20 juniors and seniors. L. Street. T R 10:10-12:05.

This course is for students who are interested in understanding crime and crime-control policies. The purpose of the course is to learn how to think about crime problems in terms of their social, political, and human service contexts. The following topics are among those addressed in order to realize the objectives of the course: American culture and crime policy; criminal justice agency and system operations; criminal offending and victimization; race and crime; and community crime-control programs. These topics are examined from the vantage point of criminal justice, social justice, and public health perspectives.

HSS 465 Community Decision Making

Fall. 3 credits. S-U grades optional. A. Hahn. T R 8:30-9:55.

This course provides an introduction to the local political environment of human service agencies and programs. Special attention is given to how community issues are raised, debated, and resolved. Topics include the roles of service providers, local government officials, social movement organizations, federal and state governments, the courts, and the news media. Previous or concurrent participation in community activities is desirable but not required.

HSS 471-472 Social Work Methods and Practice I and II

Introduction to concepts and methods used in a generalist model of social work practice. Examination of the values and ethics of professional practice. Students learn knowledge and skills appropriate for working with individuals, groups, families, organizations, and communities. Class content is integrated with concurrent supervised fieldwork. Placements are made in social agencies in Tompkins and surrounding counties. Students are expected to arrange and to pay for their own transportation.

HSS 471 Social Work Methods and Practice I

Fall. 9 credits. Limited to 25 social work students. Prerequisites: introductory psychology, introductory sociology, one course in human development, grades of C+ or better in HSS 246 and 370, and permission of instructor. R. Bounous. Lec M W 10:10-12:05; lab T R 9-5.

HSS 472 Social Work Methods and Practice II

Spring. 9 credits. Limited to 25 social work students. Prerequisites: grade of B- or better in HSS 471 and satisfactory performance in fieldwork. R. Bounous. Lec M W 10:10-12:05; lab T R 9-5.

HSS 473 Senior Seminar

Spring. 3 credits. Prerequisite: HSS 414 or 471-472 (472 may be taken concurrently) and permission of instructor. C. Shapiro. M 2:00-4:30.

This course integrates and expands on learning from HSS courses on environments, programs, and processes. Topics will include professional ethics, crisis intervention, human responses to loss, and lifestyle diversity. Each student will select a social problem or policy issue and demonstrate the application of skills in data collection, data assessment, development of an action plan, and program evaluation. Through this process, students will emphasize the integration of theory with issues in professional practice.

HSS 475 Social Policy

Spring. 3 credits. Prerequisite: HSS 370 or Government 111 or Sociology 141. S-U grades optional. J. Allen. M W F 9:05-9:55.

An examination of the policy-making process and the significance of national policies as they affect the distribution of social services. Frameworks for analyzing social policy are used to evaluate existing social programs and service-delivery systems. Implications for change in policies at the national, state, and local levels are discussed.

HSS 476 Housing and Feeding the Homeless

For description, see H ADM 490.

HSS 499 Honors Program

Fall, spring. S-U optional. 1-6 credits (maximum of 6 credits over 2 semesters). Prerequisites: open only to students in HSS who have been admitted as juniors to the College of Human Ecology Honors Program. When registering, use section number of chairperson.

An independent literature or field investigation. Students should spread the work over two semesters in their senior year. Human Ecology Honors Program guidelines are to be followed.

Topics Courses

Fall or spring. 2-4 credits. Prerequisites and enrollment limits vary with topic being considered in any particular term. Permission of instructor required.

Hours to be arranged. Department faculty. This series of courses provides an opportunity for advanced undergraduates to explore an issue, a theme, or research in the areas of departmental concentration. Topics vary each time the course is offered. Descriptions are available at the time of course registration. Although the courses are usually taught as seminars, a subject may occasionally lend itself to lecture, practicum, or other format.

HSS 490 Human Service Environments**HSS 491 Human Service Programs****HSS 492 Human Service Processes****The Graduate Program**

Human service studies graduate courses are open to undergraduates only with the instructor's permission.

The courses listed below will be taught regularly (annually or in alternate years).

HSS 600 Special Problems for Graduate Students

Fall or spring. Credits to be arranged. For students recommended by their chair and approved by the instructor in charge for independent advanced work. S-U grades optional. Department faculty.

HSS 603 Teaching Experience

Fall and spring. 1-3 credits. S-U only. For students assisting faculty with instruction. The aspects of teaching and the degree of involvement vary depending on the needs of the course and the experience of the student. Does not apply to work for which students receive financial compensation.

HSS 613 Seminar in Mental Health Services

Fall. 3 credits. Open to undergraduate seniors with instructor's approval. B. J. Mueller. T 4:00-6:30.

Using lectures, case examples, and class discussions, we will look from both administrative and clinical perspectives at the organization and delivery of mental health services to persons who are mentally ill, mentally infirm, or seriously emotionally and/or developmentally disabled. We will examine model programs for long-term community care and services designed to meet the special needs of ethnic/racial minorities, women, and homeless persons who are mentally impaired. State/federal partnerships will be discussed in terms of their impact on fiscal and human resources for both public and for-profit agencies.

HSS 625 Health Care Services: Consumer and Ethical Perspectives

Fall. 3-4 credits. Limited to 30 students; undergraduates with permission of instructor. 4-credit option, may be used as Biology and Society Senior Seminar option. A. Parrot. T R 10:10-11:25.

The course will focus on consumer and ethical issues faced by the health care field today. Broad topics to be discussed include ethical standards and guidelines, health care costs and accessibility of services, government role in health care delivery, health care as a right or privilege, private industry role in health care, services for the medically indigent and elderly, practitioner burnout and training, ethics of transplant surgery and funding, reproductive technology, AIDS research and funding, animals in medical research, right to die, and baby and granny Doe cases.

HSS 627 Legal Aspects of Health-Services Delivery

Spring. 3 credits. Prerequisites: HSS 634 or permission of instructor. S. True. T 4:00-6:30.

This course introduces principles of the law that are specifically applicable to health-services delivery. Topics considered include the liability of hospitals and their staff and personnel for injuries to patients; medical records and disclosure of information; consent to medical and surgical procedures; responsibility for patients' personal property; collection of bills; medical staff privileges; and confidential communications.

HSS 630 Comparative Health-Care Systems: Canada, the United States, and Third World Countries

Spring. 3 credits. Open to graduate students and seniors only. J. Ford. M 7:30-10:00.

An overview of health services is given within the larger context of the social and economic development policies of several industrialized democracies and developing countries. Sociocultural, economic, and epidemiologic factors are stressed as keys to the formulation of realistic strategies. Resource allocations for health services are assessed against the backdrop of changing rates of economic growth.

HSS 631 Managed Health Delivery Systems: Primary-Ambulatory Care

Spring. 3 credits. R. Battistella. T R 2:30-3:45.

The concept of primary care is used to enhance understanding of the direction and purpose of ongoing changes in health services organization and financing. Pressures on traditional indemnity insurance and solo fee-for-service medicine are examined in the context of the transition from unmanaged to managed delivery systems. The course is divided into two parts: Part 1 examines the development of health maintenance organizations and related forms of managed care against the backdrop of larger public policy concerns. Part 2 centers on administrative-financial topics associated with the design, marketing, and operation of managed delivery systems in highly competitive markets. Considerable attention is given to the relationship between physicians and management with respect to such subjects as medical practice styles, productivity, quality assurance, and outcome measurement. The consumer health care behavior literature is reviewed in the light of marketing strategies and utilization control objectives. Many of the managerial topics are amplified by field trips and a select group of visiting speakers.

HSS 634 Health Care Organization

Fall. 3 credits. Limited to 30 students. Prerequisite: graduate standing or permission of the instructor. J. Kuder. T R 12:20-1:35.

The course will provide an introduction at the graduate level to the organization of health providers in the United States, the interrelationships of health services, and major sources and methods of paying for care. The course will describe how health services are structured in the United States and how these different services interrelate along the continuum of care. The course will describe and analyze organization, delivery, and financing issues from a variety of perspectives using specific performance criteria (e.g., equity, quality, efficiency). Innovations by the public and private sectors in the delivery and reimbursement of health care will also be presented.

HSS 635 Field Studies in Health Administration and Planning

Fall or spring. 1-4 credits. Sloan faculty. TBA.

Students interested in developing administrative and program-planning research skills are given an opportunity to evaluate an ongoing phase of health care agency activity in the light of sound administrative practice and principles of good medical care. In planning and carrying out the research, students work closely with a skilled practicing administrator and with members of the faculty.

HSS 637 Epidemiology, Clinical Medicine, and Management Interface Issues

Spring. 3 credits. E. Rodriguez.
T 3:45-6:15.

This course explores from an empirical and analytical framework the relationships between epidemiology, clinical medicine, and management. The course will review the epidemiology, policy issues, and treatment of selected diagnoses accounting for a significant percentage of utilization and cost of health care services. In addition, students will have an opportunity to explore issues of resources allocation and continuous quality improvement. The format for the class is lecture, discussion, and case analysis.

HSS 638 Quality in Health Care Organizations

Spring. 1 credit. A. Kabcenell. TBA.

The quality of health services—the extent to which the appropriate and most effective care is properly administered in the least costly manner—is a topic of paramount importance to patients. But, it is also a central concern of the providers and managers of health services and those who pay for care. It is also a cornerstone of health care reform. Through readings, lecture, discussion, and group work, this course will acquaint the student with the basic elements of managing quality in health care organizations including: defining quality from many perspectives; measuring performance and detecting poor quality care; traditional and progressive approaches to managing quality including Continuous Quality Improvement; and the politics of quality, both within and outside the organization.

HSS 640 Economics of Health and Medical Care

Fall. 3 credits. J. Kuder. T R 8:30-9:55.

The course is designed for graduate students who seek an understanding of the tools, vocabulary, and way of thinking of economics as it is applied to decision making in health services delivery, administration, and policy. The philosophy of the course approach is based upon the often-quoted credo of John M. Keynes: "The theory of economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine an apparatus of the mind, a technique of thinking which helps its possessor to draw correct conclusions." The basic methods of micro-economics will be emphasized as tools to help individuals and organizations make better decisions about health services delivery, administration, financing and policy issues.

HSS 641 Health Care Financial Management I

Spring. 3 credits. J. Kuder.
T 10:10-12:40.

The course is designed to give graduate students an intensive introduction to the issues and techniques in the financial management of health service organizations. Class lectures, readings, guest speakers, problems, case studies, and research for term paper/projects will all be used to get across the important points and reinforce them with examples and applications. The course emphasizes the internal financial management knowledge and skills necessary for financial success in complex health organizations.

HSS 642 Health Care Financial Management II: Payment Systems

Spring. 3 credits. Prerequisite: HSS 641.
K. Grazier. W 3:35-6:05.

The purpose of this course is to develop an understanding of the theories on which health care payment and reimbursement systems are based and the techniques through which they operate.

HSS 645 Information Resources Management in Health and Human Service Organizations

Spring. 3 credits. Prerequisite: HSS 641.
K. Grazier. W 12:20-2:50.

The course focuses on the nature of decision making and decision support systems, sources of information, and the strategic management of information resources in organizations.

HSS 648 Managing Health and Human Service Organizations I

Fall. 4 credits. K. Pryor. T R 12:20-2:00.

This is the first segment of an 8-credit sequence addressing the management and leadership of health and human services organizations, with a perspective that ranges from that involved in first-line supervision to that of strategy setting at the CEO level. This course begins with a study of basics of management—communications, motivation, change management, leadership, human resources, organizational design issues, and labor relations. It then turns to the development of technical skills in the areas of problem solving, decision making, productivity measurement, resource allocation and performance measurement. The course is taught with an applied focus and utilizes a case study approach.

HSS 649 Managing Health and Human Service Organizations II

Spring. 4 credits. Prerequisite: HSS 648.
K. Pryor. T R 12:20-2:00.

This is the second segment of an 8-credit sequence in the management and leadership of health and human services organizations. This course concentrates on strategy issues, marketing, organizational culture issues, development of mission, the management of professionals, and studies the importance of roles, structure, and inter- and intra-institutional relationships in these organizations. The course is taught via a case study approach.

HSS 655 Leadership in the Human Services

Spring. 3 credits. Limited to 20 students.
S-U grades optional. Open to upper-level undergraduates with instructor's permission. B. J. Mueller. T R 4:00-5:15.

Students in this seminar will study human service organizations in the context of their changing economic, political, ecological, and technological environments, and in terms of the leadership behaviors of administrators who are making successful adaptive responses to these changes. The introduction of new organizational forms and strategies for nurturing innovation and for effecting cultural change within the work environment will be discussed from the perspective of leadership roles at various organizational levels.

Readings include both new theoretical literature and practical how-to-do-it guides for administrators. The seminar format provides an opportunity for simulations so that students can enact and receive feedback on their own developing leadership skills.

HSS 658 Professional Ethics and Public Policy

Spring. 3 credits. J. Ziegler.
M W 3:35-5:30.

This course will explore current issues of ethics and public policy against a background of theories of ethical behavior. Questions of how public officials and managers of public and non-profit agencies and private enterprises act will be examined. How do standards of ethical behavior in the professions get established? How are public policy issues with ethical implications resolved? Readings will be drawn from political philosophy, contemporary social science, and imaginative writing. Class participation is essential. Open to seniors and graduate students.

HSS 660 Social Policy and Program Planning in Human Services

Spring. 3 credits. S-U grades optional.
J. Allen. M W 11:15-12:30.

An examination of the policy process with an emphasis on the ways in which this process determines the allocation and distribution of social services in the fields of health, education, income security, employment, criminal justice, and housing. The relationship of the policy process to the political economy, to intergovernmental relations, and to social change at the national, regional, state, and local levels will be analyzed. To this end history, theory, cultural values and beliefs, and the structure of society will also be investigated. The role of evaluation in policy planning and implementation will be underscored. Current issues in policy, such as the role of the private and voluntary sectors, interest group politics, barriers and constraints to the development of effective policies, and the respective roles of consumers, clients, and human service professionals in the policy process will also be addressed.

[HSS 664 The Intergovernmental System

Fall. 3 credits. Open to seniors who have had a course in American government and to graduate students. Next offered 1997-98. A. Hahn. T R 2:30-4:00.

This course provides a general introduction to the art and science of public administration with special reference to the intergovernmental system, critical issues of public policy and human service administration. Particular attention is given to national and state policy objectives, the national and state budgetary process, and local roles in implementing and influencing national and state programs. Issues of health, education, social welfare, the environment, housing and the like are discussed.]

HSS 685 Health and Welfare Policy

Fall. 3 credits. R. Battistella.
T R 2:30-3:45.

Health and welfare issues are seen as reflecting alternate solutions to the broader institutional problems of allocation (economics), control (politics), and normative behavior (morality). A basic tenet is that health and welfare policy is deeply rooted in social values and the availability of economic resources. Health policy is interpreted from a multidisciplinary perspective in which change emanates from structural dynamics accompanying socioeconomic development such as the evaluation of the economy from the entrepreneurial to the managerial to the post-industrial stages, together with shifts in social and political ideology—libertarianism, welfare statism, and secular humanism.

HSS 688 Long-Term Care and the Aged: Alternative Health and Social Service Delivery Systems

Spring. 3 credits. R. Battistella.
T R 9:00–10:15.

Alternatives for the organization and delivery of long-term care services are examined within the context of public-financing constraints. Progressive long-term care is viewed as a continuum encompassing medical and social services positioned to optimize independent living. Relevant experience from other highly developed countries is presented. Visiting speakers from the public and private sectors are featured. Field trips provide additional insights into the many challenges and opportunities in long-term care policy and management.

HSS 689 Introduction to Program Evaluation

Fall. 1 credit. J. Greene. M 9:05–9:55.

This course provides a conceptual introduction to the theory and practice of social program evaluation. It is designed particularly but not exclusively for students planning a major or minor in HSS program evaluation and planning. The course emphasizes two major dimensions of evaluation: 1) its practical, real-world, political dimension and 2) its theoretical, methodological dimension. At the intersection of these two dimensions lie issues of evaluation's purpose and role, which are also addressed in the course.

HSS 690 Measurement for Program Evaluation and Research

Fall. 3 credits. E. Rodriguez.
M W 10:10–11:25.

The course reviews measurement theory and its application to the evaluation of human service programs. Topics include validity; reliability; scaling methods; basic principles of instrument design; and varied methods of data collection with an emphasis on structured questionnaires and interviews. Student work is focused around an applied course project. Attention is also given to ethical and managerial issues that arise in applied measurement settings.

HSS 691 Program Evaluation and Research Design

Spring. 3 credits. W. Trochim.
M W 10:10–11:25.

This course reviews research design and its application to the evaluation of human service programs. Major topics include experimental, quasi-experimental, and nonexperimental research designs; basic sampling and measurement theory; and the theory of validity in research. Attention is given to issues that arise in the application of research designs to the evaluation of programs, including problems of randomization, causal inference, replication, and utilization of results. The central role of the general linear model in the statistical analysis of outcome evaluation is presented through case examples and computer simulation. Students will encounter examples of outcome evaluations from a wide range of disciplines including health, mental health, social welfare, criminal justice, social policy, and education.

HSS 692–693 Program Evaluation in Theory and Practice

692, fall; 693, spring. 4 credits each semester. Prerequisites for HSS 692: 690 and 691 or 696, or permission of instructor. Prerequisite for HSS 693: 692. Students must register for both semesters.
J. Greene/W. Trochim. M W 2:30–3:45.

This course is a practicum in which the class designs and conducts an evaluation of a human service program. Students are involved in all phases of the evaluation from design through the production and dissemination of a final report. Emphasis is on research methods in the social sciences. Application of knowledge developed in prerequisite courses is stressed (for example, planning and managing an evaluation, ethics, methods of data collection, data processing, and strategies for analysis and feedback of results).

[HSS 695 Strategies for Policy and Program Evaluation]

Fall. 3 credits. Prerequisites: HSS 690 and 691 or 696, or equivalent. Offered alternate years. Next offered 1996–97.
J. Greene. T R 10:10–11:25.

This course examines a wide range of approaches to the evaluation of policies and programs in the human services. The approaches are examined with respect to their purposes, key audiences, and methodologies, as well as their philosophical, political, and value frameworks. Analysis of commonalities and differences across evaluation approaches are used to judge the appropriateness of a given strategy for a particular context.]

HSS 696 Qualitative Methods for Program Evaluation

Spring. 3 credits. Prerequisites: HSS 690 and 691 or equivalent. J. Greene.
T R 10:10–11:25.

This course presents a qualitative approach to applied research and the evaluation of human service programs. Topics include the epistemological assumptions underlying this approach, questions of entry into setting, methods for data collection and data analysis, reporting, confidentiality of participants, and the ethics of qualitative inquiry. The course aims to help students understand how, when, and why a qualitative approach to social inquiry can be used appropriately, effectively, and defensibly.

HSS 704–705 Internship in Human Service Studies

Fall, spring, or summer. 1–15 credits.
S-U grades optional. Graduate faculty.

Internship placement in human services is determined by availability and students' academic and professional goals. Opportunities are available in public and private human service organizations at the national, state, and local levels in positions consistent with students' needs and desires. The duration of an internship is negotiated between the student and the agency, while course credit and residence units are arranged between the student and the Special Committee.

[HSS 790 Advanced Seminar in Program Evaluation]

Fall, spring. 1–3 credits. S-U grades optional. Prerequisite: permission of instructor. Next offered 1996–97.
J. Greene/W. Trochim. T R 2:30–3:45.

This course is intended for students with at least three courses in evaluation (HSS 690 series or equivalent) and statistics through multiple regression. The seminar focuses on analysis and appraisal of current literature on program evaluation and evaluative research, with emphasis on the links between program evaluation and program planning and administration. The seminar is topical, addressing current issues of importance in the field.]

HSS 799 MPS Problem Solving Project

Fall or spring. Credits to be arranged. For students recommended by their chair and approved by the instructor in charge for independent advanced work. S-U grades optional.

HSS 899 Master's Thesis and Research

Fall and spring. Credit to be arranged. Prerequisite: permission of the chair of the graduate committee and the instructor. S-U grades optional.

HSS 999 Doctoral Thesis and Research

Fall and spring. Credit to be arranged. Prerequisite: permission of the chair of the graduate committee and the instructor. S-U grades optional.

Topics Courses

Fall or spring. 2–4 credits. Prerequisites and enrollment limits vary with topic being considered in any particular term. Permission of instructor required.

Hours to be arranged. Department faculty. This series of courses provides an opportunity for graduates to explore an issue, a theme, or research in the areas of departmental concentration. Topics vary each time the course is offered. Descriptions are available at the time of course registration. Although the courses are usually taught as seminars, a subject may occasionally lend itself to lecture, practicum, or other format.

HSS 610 Human Service Administration**HSS 611 Program Evaluation and Planning****HSS 612 Health Administration****Topical Seminars and Practica**

Seminars and practica, offered periodically and reflecting faculty and student interest, with changing topics and instructors. Content, time, credits, and instructors to be announced. Seminars and practica offer concentrated study in a specific human service area or in the education, planning, or evaluation processes within human services.

HSS 669 Seminar in Program Planning and Development

Fall. Variable credit. A. Hahn.
T R 12:20–1:35.

Topics include microlevel program planning, third-sector organizations, and intergovernmental influences on program planning, policy formation, program implementation, and mainstreaming. Two or more human services are examined.

HSS 697 Seminar in Program Evaluation and Evaluative Research

Fall and spring. 1 credit. J. Greene/
W. Trochim. W 12:20–1:10.

This ongoing seminar is topically organized according to student and faculty projects. Focuses on professional issues in evaluation practice, including consulting, ethics and standards, preparation of conference and publication materials, and various methodological issues.

TEXTILES AND APPAREL COURSES

A. Lemley, chair, A. Netravali, graduate faculty representative; P. Schwartz, undergraduate advising coordinator; S. Ashdown, C. C. Chu, C. Coffman, M. Govindaraj, C. Jirousek, S. K. Obendorf, A. Racine, S. Watkins

NOTE: Class meeting times are accurate at the time of publication. If changes are necessary, the department will provide new information as soon as possible.

TXA 114 Introduction to Computer-aided Design

Fall and spring. 3 credits. Limit 12 per lab section. Priority given to TXA and DEA students. S-U grades optional. A. Racine. A studio course that focuses on using the microcomputer as a design tool. The command-driven AutoCAD software program is the medium of expression for creating, modifying, and plotting visual images. Students will develop two-dimensional surface designs based on historical and cultural sources. Approximate cost of supplies is \$80.00; lab fee \$10.

TXA 125 Art, Design, and Visual Thinking

Fall. 3 credits. S-U grades optional. C. Jirousek. Lecs M W F 12:20-1:10. An introduction to the visual arts and design that explores aesthetic and cross-cultural dimensions of visual experience. Augmented by slide presentations and films, lectures emphasize relationships between visual forms and technology and social, political, and cultural interpretations that distinguish works of art from other man-made objects.

TXA 145 Apparel Design I

Spring. 4 credits. Limited to 44 students with 22 students per lab section; priority given to TXA majors or students transferring into TXA. Apparel design majors should take course during the first year. Minimum cost of materials, \$125; lab fee, \$10. A. Racine. Lec T 1:25-4:25 and lab F 12:20 or lec R 1:25-4:25 and lab F 1:25. Intensive study of principles and processes of flat-pattern design with emphasis on creative expression in children's apparel. Students develop a thorough understanding of principles and techniques needed to produce apparel.

TXA 217 Drawing the Clothed Figure

Spring. 3 credits. Enrollment limited to 18 students. Prerequisite: a basic drawing course. Priority given to apparel design students. S-U grades optional. Minimum cost of supplies \$100.00. S. Watkins. T R 9:05-12:05.

To improve the student's ability to illustrate two-dimensionally the interaction of draped fabric and the human form and to develop awareness of clothing as a design medium. Emphasis is on development of techniques and skills in selected media necessary for the communication of design ideas.

TXA 235 Fibers, Fabrics, and Finishes

Fall. 3 credits. S-U grades optional. P. Schwartz. Lecs M W F 9:05-9:55. An introduction to fibers, fibrous materials, and dyes and finishes. Special emphasis is given to the use of fibrous materials in apparel, residential and contract interiors, and industrial applications. Topics covered include fiber properties, fabric structure, coloration of fibrous materials, dimensional stability, flammability, product specifications, and performance standards.

TXA 246 Clothing: The Portable Environment

Fall. 3 credits. Average cost of materials, \$30. S. Watkins.

An introduction to the design of clothing for a variety of occupations and climates for individuals of varying ages, for sports and recreation, and for hazardous environments such as under water or outer space.

TXA 264 Apparel Design II

Fall. 4 credits. Limited to 20 students. Prerequisite: TXA 145. Recommended: TXA 125 and one art or drawing course. Apparel design majors should take TXA 264 and 367 in the same academic year, preferably during the sophomore year. Minimum cost of materials, \$125; lab fee, \$10. S. Ashdown. M W 1:25-4:25.

This studio course examines the process of creating a three-dimensional garment from the two-dimensional fabric. Through exercises, principles and processes of draping, advanced flat pattern making, and fitting are studied. Assigned problems require the students to make judgments regarding the design process, the nature of materials, body structure, function, and fashion.

TXA 300 Special Studies for Undergraduates

Fall or spring. Credit to be arranged. Staff.

Special arrangement for course work to establish equivalency for courses not transferred from a previous major or institution. Students prepare a multicopy description of the study they want to undertake on a form available from the Student Services Office. The form, signed by both the instructor directing the study and the department chair, is filed at course registration or during the change-of-registration period.

TXA 301 Investigative Research on the Social Impact of Science (also Biology and Society 300 and Science and Technology Studies 402)

Spring. 4 credits. Letter grade only. Prerequisite: one year of science and permission of instructor. Limited to 20 students. Not offered after spring 1996. P. Taylor.

TXA 331 Apparel Production Technology

Fall. 3 credits. Prerequisites: Economics 101 and 102 or CEH 110 and 111 and an upper-division course in either apparel or textiles. M. Govindaraj.

Introduction to technical and economic aspects of textile and apparel production. Emphasis is on design and functioning of apparel manufacturing systems and their components. Analysis of efficient manufacturing methods such as Quick Response (QR), Just-in-Time (JIT) as applicable to apparel production, and use of computer technology in production and quality control will be included.

TXA 336 Fundamentals of Color and Dyeing

Fall. 3-4 credits. Prerequisite: College Natural Science Requirements. Fiber science students are required to take the lab. Lab fee, \$15. C. C. Chu. Lecs M W F 10:10-11:00; lab M 1:25-4:25.

Color is an extremely important and useful factor in daily life. This course will emphasize theories and scientific principles of color, providing a framework for the use of colors in design, marketing, or research. How

colorants are used to dye fabrics will be addressed. Although fabrics are chiefly used to illustrate color in the class, much of the information and knowledge will be useful to non-textile majors. Guest lecturers from industry will provide the practical aspects of color in business.

TXA 337 Formation and Structure of Textile Fabrics

Spring. 3 credits. Prerequisite: TXA 235. Recommended: college algebra.

P. Schwartz. Lecs M W F 9:05-9:55.

This course covers the elements of technical fabric design with an emphasis on woven and knitted fabrics. Topics include structure of woven and knitted fabrics, openness, manufacturability, equivalence, and color effects.

TXA 367 Apparel Design III

Spring. 3 credits. Prerequisite: TXA 114, TXA 125, and TXA 264. Recommended: two art or drawing courses. Apparel design majors should take TXA 264 and 367 in the same academic year, preferably during the sophomore year. Minimum cost of materials, \$175; lab fee, \$10.

A. Racine. M W F 10:10-12:05.

Intermediate apparel students prepared to challenge and refine their design skills will be presented with a variety of complex studio problems including computer-aided apparel design. The Cornell Costume Collection is used for illustration and inspiration.

TXA 375 Color and Surface Design of Textiles

Fall. 3 credits. Minimum cost of other materials, \$100; lab fee, \$60. Limited to 15 students. C. Jirousek. T R 1:25-4:25.

Studio experience in the surface design of textiles combined with exercises in color theory. Textile projects will utilize techniques such as block printing, shibori, batik, silk painting, silk screen, and stitchery to produce a portfolio of textile designs. Studio work will be augmented by lectures on pattern and color theory illustrated by slides and textile examples.

TXA 400-401-402-403 Special Independent Studies for Undergraduates

Fall or spring. Credits to be arranged. S-U grades optional. Staff.

For advanced independent study by an individual student or for study on an experimental basis with a group of students in a field of TXA not otherwise provided through course work in the department or elsewhere at the university. Students prepare a multicopy description of the study they want to undertake on a form available from the Student Services office. This form must be signed by the instructor directing the study and the department chair and filed at course registration or within the change-of-registration period after registration. To ensure review before the close of the course registration or change-of-registration period, early submission of the special-studies form to the department chair is necessary. Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study.

TXA 400 Directed Readings

For study that predominantly involves library research and independent reading.

TXA 401 Empirical Research

For study that predominantly involves data collection and analysis, or laboratory or studio projects.

TXA 402 Supervised Fieldwork

For study that involves both responsible participation in a community setting and reflection on that experience through discussion, reading, and writing. Academic credit is awarded for this integration of theory and practice.

TXA 403 Teaching Apprenticeships

Fall or spring. 2-4 credits. Prerequisites: student must have upperclass standing, have demonstrated a high level of performance in the subject to be taught and in the overall academic program, and have permission of the instructor and the department chair. S-U grades optional. Staff.

Apprenticeship includes both a study of teaching methods in the field and assisting the faculty with instruction.

TXA 432 Product Quality Assessment

Spring. 3 credits. Prerequisites: TXA 235 and Statistics. Lab fee, \$15.
S. K. Obendorf. Lecs M W F 1:25; lab M 2:30-4:25.

This course covers evaluation of fibers, yarns, fabrics, and garments, with emphases on the meaning of standards, testing philosophy, quality control, and statistical analysis. Day-to-day tests done in textile and apparel industry will be discussed. Laboratory sections will introduce students to various test methods, data generation for analysis, and evaluation.

TXA 436 Fiber Chemistry

Spring. 3 credits. S-U grade optional. Senior and first-year graduate students. C. C. Chu. Lecs M W F 10:10-11:00.

The chemical and physical structure of several commercially important fibers, such as cotton, wool, silk, polyesters, nylons, acrylics, polyolefins and spandex and their polymerization process are discussed. The general chemical and physical properties of each will be given. Degradation reactions for certain fibers such as polyolefins and acrylics will be discussed.

TXA 439 Biomedical Materials and Devices for Human Body Repair

Spring. 3 credits. S-U grades optional. Prerequisites: College Natural Science Requirement. Juniors and seniors preferred. (Chem. 103-104, or Biol. 101-103). C. C. Chu. T 1:25-4:25.

Survey of materials and devices for repair of injured, diseased, or aged human tissues/organs. It includes properties of synthetic and biological materials, wound healing processes, medical devices for repair of wounds, blood vessels, hearts, joints, bones, nerves, male impotence, vision/hearing/voice, and drug control/release.

TXA 446 Apparel Design: Intermediate Functional Clothing Design

Spring. 3 credits. Prerequisites: TXA 246 and TXA 264 or permission of instructor. Minimum cost of materials, \$125; lab fee, \$15. Next offered 1996-97. S. Watkins.

Complex problems in functional apparel design will be studied with an emphasis on totally encapsulating clothing. Students will work in groups and individually to set design criteria and develop innovative solutions for current problems in protective apparel.]

TXA 465 Apparel Design: Product Development and Presentation

Fall. 3 credits. Prerequisites: minimum of three drawing or art courses and TXA 367 or permission of instructor. Minimum cost of materials, \$250; lab fee, \$10. S. Ashdown.

Through studio problems in apparel design, students examine the influence of manufacturing technology and cost on apparel products. Garments are developed to various stages from sketches to finished samples. Some portfolio development included.

TXA 600 Special Problems for Graduate Students

Fall or spring. Credit to be arranged. S-U grades optional. Staff.

Independent advanced work by graduate students recommended by their chair and approved by the department chair and instructor.

TXA 620 Physical Properties of Fiber-Forming Polymers and Fibers

Spring. 3 credits. Prerequisite: permission of instructor. Next offered 1996-97. A. Netravali.

Formation and properties of fiber-forming polymers, rubbery, glassy, and crystalline states and their interconnection. Fiber structure, relationship between chemical structure and physical properties of manufactured and natural fibers. Mechanical, thermal, and viscoelastic properties of fibers and testing methods will be discussed.]

TXA 626 The Chemistry of Textile Finishes and Dyeing

Spring. 3 credits. S-U optional. Prerequisites: TXA 336 or equivalent and organic chemistry, or permission of instructor. Next offered 1996-97. C. C. Chu.

Chemical aspects of textiles with emphasis on finishes and dyeing are discussed. Industrially important textile chemicals used for dyeing and enhancing fiber and fabric properties, such as durable press, anti-soiling, water repellency will be studied. The emphasis is on the correlation of the observed effect with chemical structure, end-use influences, interaction with fabric and fibers, sources and synthetic routes. The environmental impact of these textile chemicals and current federal regulation will be briefly discussed.]

TXA 635 Special Topics in Textiles and Apparel

Fall and spring. 1-3 credits. Prerequisite: permission of instructor. Next offered 1996-97. Staff.]

TXA 637 Research Seminars in Apparel Design

Fall and spring. 1 credit; S-U optional; repeat of course each semester is encouraged for all apparel design graduate students. Available to advanced undergraduate students with permission of individual instructor. Apparel Design faculty.

TXA 639 Mechanics of Fibrous Assemblies

Fall. 3 credits. Prerequisite: permission of instructor. Next offered 1996-97. P. Schwartz.

A study of the mechanics of fiber assemblies: idealized yarn and fabric models; statistical bundle theories; deformation of yarns and fabrics in tensile, shear, and compression stress; bending and buckling; and the mechanical behavior of nonwoven textile materials.]

TXA 664 Human Factors: Anthropometrics and Apparel

Spring (even-numbered years). 3 credits. S-U grade optional. Limit 15. Prerequisite: permission of instructor. Open to advanced undergraduates. S. Ashdown.

Seminar course focusing on the human form and its relationship to clothing. Includes discussion of quantification of body sizes and human variation; historical, cultural, and aesthetic concepts of fit; apparel fitting techniques; national and international sizing systems and standards; impact of sizing systems on various populations (elderly, handicapped, etc.).

TXA 675 Aesthetics and Meaning in World Dress

Spring. 3 credits; S-U optional. Prerequisites: TXA 125 or course in history of art, costume history, or other history. Offered alternate years. C. Jirousek.

An examination of the aesthetic and social psychological relationship between body and clothing in the context of various cultures. Students will develop a research topic to be presented orally and in a term paper and will participate in the development of an exhibition.

TXA 899 Master's Thesis and Research

Fall or spring. Credits to be arranged. Prerequisite: permission of the chair of the graduate committee and the instructor. S-U grades optional. Staff.

TXA 999 Doctoral Thesis and Research

Fall or spring. Credit to be arranged. Prerequisite: permission of the chair of the graduate committee and the instructor. S-U grades optional. Staff.

FACULTY ROSTER

- Allen, Josephine A., Ph.D., U. of Michigan. Assoc. Prof., Human Service Studies
Anderson, Carol L., Ph.D., Iowa State U. Assoc. Prof., Human Development and Family Studies, Assistant Dean
Ashdown, Susan, Ph.D., U. of Minnesota. Asst. Prof., Textiles and Apparel
Avery, Robert B., Ph.D., U. of Wisconsin. Prof., Consumer Economics and Housing
Avery, Rosemary J., Ph.D., Ohio State U. Assoc. Prof., Consumer Economics and Housing
Barr, Donald J., Ph.D., Indiana U. Prof., Human Service Studies
Battistella, Roger M., Ph.D., U. of Michigan. Prof., Human Service Studies
Becker, Franklin D., Ph.D., U. of California at Davis. Prof., Design and Environmental Analysis
Boyd, D. Michael, B.A., U. of North Iowa. Prof., Design and Environmental Analysis
Brumberg, Joan J., Ph.D., U. of Virginia. Prof., Human Development and Family Studies
Bryant, W. Keith, Ph.D., Michigan State U. Prof. and Chair, Consumer Economics and Housing
Canfield, Rick, Ph.D., U. of Denver. Asst. Prof., Human Development and Family Studies
Ceci, Stephen J., Ph.D., U. of Exeter (England). Prof., Human Development and Family Studies
Chi, Peter S., Ph.D., Brown U. Prof., Consumer Economics and Housing
Chu, Chih-Chang, Ph.D., Florida State U. Prof., Textiles and Apparel
Cochran, Moncrieff, Ph.D., U. of Michigan.

- Prof., Human Development and Family Studies
- Cornelius, Steven W., Ph.D., Pennsylvania State U. Assoc. Prof., Human Development and Family Studies
- Danko, Sheila, M.I.D., Rhode Island School of Design. Assoc. Prof., Design and Environmental Analysis
- Depue, Richard, Ph.D., U. of Oklahoma. Prof., Human Development and Family Studies
- Eckenrode, John J., Ph.D., Tufts U. Assoc. Prof., Human Development and Family Studies
- Eshelman, Paul E., M.F.A., U. of Illinois. Assoc. Prof., Design and Environmental Analysis
- Evans, Gary, Ph.D., U. of Massachusetts at Amherst. Prof., Design and Environmental Analysis
- Firebaugh, Francille M., Ph.D., Cornell U. Prof., Consumer Economics and Housing, Dean
- Ford, John L., Ph.D., U. of Michigan. Prof., Human Service Studies
- Garbarino, James, Ph.D., Cornell U. Prof. and Director, Family Life Development Center
- Garner, Clark E., M.F.A., U. of Kansas. Prof. Emer., Design and Environmental Analysis
- Gerner, Jennifer L., Ph.D., U. of Wisconsin. Prof., Consumer Economics and Housing, Assistant Dean
- Gibson, Kathleen J., M.A., Ohio State U. Asst. Prof., Design and Environmental Analysis
- Govindaraj, Muthu, C.Sc., C. of Mechanical and Textile Engineering (Czechoslovakia). Asst. Prof., Textiles and Apparel
- Grazier, Kyle, Ph.D., U. of California at Berkeley. Assoc. Prof., Human Service Studies
- Greene, Jennifer C., Ph.D., Stanford U. Assoc. Prof., Human Service Studies
- Hahn, Alan J., Ph.D., Indiana U. Prof., Human Service Studies
- Hamilton, Stephen F., Ed.D., Harvard U. Prof. and Chair, Human Development and Family Studies
- Haugaard, Jeffrey, Ph.D., U. of Virginia. Asst. Prof., Human Development and Family Studies
- Hazan, Cindy, Ph.D., U. of Denver. Assoc. Prof., Human Development and Family Studies
- Heck, Ramona K.Z., Ph.D., Purdue U. Assoc. Prof., Consumer Economics and Housing
- Hedge, Alan, Ph.D., U. of Sheffield (England). Assoc. Prof., Design and Environmental Analysis
- Hogarth, Jeanne M., Ph.D., Ohio State U. Assoc. Prof., Consumer Economics and Housing
- Jennings, Jan, M.S. Oklahoma State U. Assoc. Prof., Design and Environmental Analysis
- Jirousek, Charlotte, Ph.D., U. of Minnesota. Asst. Prof., Textiles and Apparel
- Koslowski, Barbara, Ed.D., Harvard U. Assoc. Prof., Human Development and Family Studies
- Kuder, John, Ph.D., U. of Michigan. Assoc. Prof., Human Service Studies
- Kutty, Nandinee K., Ph.D., Syracuse U. Asst. Prof., Consumer Economics and Housing
- Lacy, William, Ph.D., U. of Michigan. Prof., Associate Dean
- Laquatra, Joseph Jr., Ph.D., Cornell U. Assoc. Prof., Design and Environmental Analysis
- Lee, Lee C., Ph.D., The Ohio State U. Prof., Human Development and Family Studies
- Lemley, Ann T., Ph.D., Cornell U. Prof. and Chair, Textiles and Apparel
- Lenzenweger, Mark F., Ph.D., Yeshiva U. Assoc. Prof., Human Development and Family Studies
- Lillard, Dean R., Ph.D., U. of Chicago. Asst. Prof., Consumer Economics and Housing
- Lust, Barbara C., Ph.D., City U. of New York. Prof., Human Development and Family Studies
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