



**Cornell University**

## **New York State College of Human Ecology Course Descriptions**

**1973-74**

A Statutory College of the State University,  
Cornell University, Ithaca, New York



## Description of Courses\*

The courses offered in the New York State College of Human Ecology, Cornell University, are listed below by department. They are numbered according to the following system.

**100-299:** Courses primarily for undergraduates (freshmen and sophomores). They include introductory courses; 200 courses may carry prerequisites, or courses or class stipulations.

**300-499:** Courses primarily for undergraduates (juniors and seniors) and graduate students.

**600-699:** Courses primarily for graduate students.

**700-799:** Courses restricted to graduate students except with permission of the instructor.

**899:** Master's thesis and research

**999:** Doctoral thesis and research

## Interdepartmental Courses

Interdepartmental courses may count toward the 15 credits outside the major but must be in addition to work in two departments with at least 6 credits or two courses in one department.

**250 Introduction to Social Policy.** Spring term. Credit three hours. S-U grades optional. Open to upper division students. T Th 12:20-1:40. I. Lazar and L. Carter.

This course is intended to give students an appreciation of the significance of national policies as they affect social relations and levels of living. Although it will concentrate on governmental policies, the course also will consider the role of private initiatives. The course will examine questions about the distribution

\* The courses and curricula described in this publication, and the teaching personnel listed herein are subject to change at any time.

of social goods and services and the measurement of their contribution to particular objectives.

**[301 Field Study Planning.** Fall term. Credit two hours. S-U grades optional. Time to be arranged. Open to undergraduate and graduate students interested in field learning with prior experience in the Human Affairs Program or its equivalent. Permission of the instructor required. J. Knitzer. Not offered 1973-74.

A case study in the problems of implementation of educational innovation. Students will develop bibliographies, critique articles and materials related to Field Intervention in Social Problems, and participate with the Director of College Field Study in the planning of a field program for the College.]

**302 Issues Seminar: Human Ecology in the Private Sector.** Fall and spring terms. Credit two hours. W 7-9 p.m. Open to undergraduate students (except freshmen) and graduate students.

Consideration of current issues facing business in today's society; as social accountability and the profit motive, the impact of government and the consumer movement. Prerequisite for summer field experience for credit in the Private Sector. Participation in the Summer Program is not mandatory. For further information see N. Conklyn (256-3196, Room 284A MVR) or J. Knitzer (256-6579, Room 159 MVR).

**312 Decision Making in the Family.** Fall and spring terms. Credit three to four hours. S-U grades optional. T Th 1:25-3:20 and other hours to be arranged. A. Davey.

Decision making is studied in relation to goal formation and the means used to achieve goals within the economic and social context of the family. Factors that expand as well as limit alternatives are examined along with the processes of decision making. Field trips are included. The second part of the course focuses on the application of decision-making concepts in a variety of situations. The number and type of experiences determine the credit and course fee. These include: (a) a field experience in helping a family solve a problem that involves an important decision; (b) participation in a small group that lives together, making and

implementing decisions relative to some of the resources and activities associated with family living; and (c) an independent exploration of some phase of family or small group decision making to meet a particular student's needs and interests. Suggested for students preparing for positions in social work, Cooperative Extension, and other helping professions. Required of students in Option Ia, Community Service Education, and for Options I and III in Consumer Economics and Public Policy. Maximum course fee is \$36.

**325 Seasonal Workers: Problems and Programs.** Spring term. Credit six hours. By permission of instructor. T Th 8:30-5, with one additional evening to be arranged. (Other time arrangements may be arranged with the instructor, but must include Tuesday morning.) For further information, see D. Dik (256-3204, Room N-130 MVR) or J. Knitzer (256-6579, Room 159 MVR).

An intensive field experience working with seasonal workers and community representatives in Wayne County.

Areas of exploration may include an examination of existing community programs, child development and housing needs, educational planning and policy issues. Emphasis will be on exploring decision-making processes affecting migrants at the local level and assessing proposed local change strategies, local issues in relation to a national context.

**349 Participation in Selected Sections of the Human Affairs Program.** Fall and spring terms. Credit three to six hours. S-U grades optional. Time to be arranged. Prerequisite: students who have not previously registered for ID 349 need only the signature of the section leader on an add slip and the signature of a staff member in the office of Records and Scheduling.

Students repeating ID 349 must obtain the signature of the director of the Field Study Office as well as the section leader on the add slip. If the repeat is in the same section, students must fill out a petition form available in the Field Study Office. Open to sophomores, juniors, and seniors. J. Knitzer.

A collegewide course, under the supervision of a committee appointed by the dean. Not all sections of the Human Affairs Program can be accommodated under ID 349. Consult instructor for those accepted each semester. A student must be accepted into an appropriate section before completing registration.

**350 Man in Contemporary Society.** Spring term. Credit four hours. S-U grades optional. Not open to freshmen and sophomores. W 7-9 p.m. and hours to be arranged. S. Clemhout. An interdisciplinary approach to problems of man in and interacting with his physical, biological, and social environment. Analysis of the interaction of the physical, biological, and social dimensions of selected problems of man;

implications of these interactions for individuals and families in society.

**360 Field Experience in Problem Solving.** Fall and spring terms. Credits (not less than three). Time to be arranged. S-U grade optional. Limited to undergraduate, graduate students, and staff in Human Ecology approved by the Field Director.

Each section of the course will concern itself with a problem in a limited geographic setting which requires an interdisciplinary approach to specifically identify, and develop a response. Each problem must involve orderly social change in which the people involved in such change are also engaged in bringing it about.

**368 Child-Care Facilities Planning.** Spring term. Credit three hours. S-U grades optional. Prerequisite: senior majors or graduate students in HDFS, DEA, HNF, and CSE, or permission of instructor. M W 1:25. R. Bartholomew and staff from Human Ecology.

Seminar and team project focusing on a specific nursery school, day-care center, mental retardation institution, or other type of child-care facility. An actual project will provide the specific problem focus of the course. The course will cover activity-space analysis, nutrition-dietary planning, behavioral needs, community relationships, staffing requirements, licensing problems, physical planning, and solution proposal. The team project organization will enable students with a background in either design, nutrition, or child psychology to contribute in the area of their strength.

**405 Independent Field Study.** Fall and spring terms. Credit and hours to be arranged. S-U grades optional. Registration with permission of faculty sponsor and approval of Field Study Committee.

Provides opportunity for student to develop an individualized intensive off-campus field study experience.

**425 The Organization, Administration, and Delivery of Human Services.** Spring term. Credit one or two hours, enrollment limited. Times to be arranged will entail one morning meeting (9:30-12) once a month, plus other hours. J. Sugarman.

This course is designed as a seminar and will explore in depth some of the issues and dilemmas involved in planning for and providing human services. New York City and the Human Resources Administration will be used as an illustration and will be contrasted with Tompkins County and its human service organizations and delivery systems. Topics to be discussed include: the organization of human services, the delivery of human services and city-state-federal budgetary realities and relationships, strategies for social change and case studies of multiproblem families. For further information see K. Clancy-Hepburn (256-3156, Room 376 MVR) or J. Knitzer (256-6579, Room 159 MVR).



## Division of Academic Services

**300 Special Studies for Undergraduates.** Fall and spring terms. Credit and hours to be arranged. For special arrangement of course work necessitated because of nonequivalent training in a previous major or previous institution. Department faculty.

Students prepare two copies of a description of the study they wish to undertake. One, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. Students obtain forms to be used from their counselors.

**400-401-402 Special Studies for Undergraduates.** Fall and spring terms. Credit hours to be arranged. Department faculty.

For independent study by an individual student in advanced work not otherwise provided in the department; or for study, on an experimental basis, with a group of students in advanced work not otherwise provided in the department. Students prepare two copies of a description of the study they wish to undertake. Forms for this purpose are available from the Division of Academic Services. One form, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials, or within the change-of-registration period after registration. The second copy is left with the instructor. In order to ensure review before the close of the preregistration or change-in-registration period, early submission of the special studies form to the department chairman is necessary.

Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study.

**400 Directed Readings:** For study that predominantly involves library research and independent reading.

**401 Empirical Research:** For study that predominantly involves data collection and analysis or laboratory or studio projects.

**402 Supervised Fieldwork:** For study that predominantly involves participation in community or classroom settings.

**600 (500) Special Problems for Graduate Students.** Fall and spring terms. Credit and hours to be arranged. For graduate students recommended by their chairman and approved by the head of the department and the members of the staff in charge of the problem for independent, advanced work. Department faculty.

## Community Service Education

Irving Lazar, Chairman; Helen Y. Nelson, Graduate Field Representative

The Department of Community Service Education focuses on the analysis of educational and social action processes and programs, especially those designed to help people improve the quality of everyday life. Faculty and students in the department have a mutual concern for understanding the processes by which people make significant changes in their environment.

Professionals are needed who can design innovative programs for effecting change, participate in the implementation of such programs, and analyze systematically their impact on people. Preparation of these professionals is a primary function of the department.

The departmental major includes options to prepare students to teach home economics (Option Ia) and health (Option Ib), to work in human service and social action agencies (Option II), or to perform educational, planning, and program development roles in a variety of settings as diverse as a local planning and development commission or the consumer arm of a major industry (Option III).

### Professional Training Sequence

The department offers professional preparation in home economics and health education and in social work at the undergraduate level, in home economics, health, adult and informal education and in community program development and human services program evaluation at the graduate level. In conjunction with other departments and units of the University, the Department of Community Service Education helps students prepare for work in the fields of social planning and social policy. The undergraduate options have prescribed curricula; descriptions are available from the Division of Academic Services.

**In Education** these curricula prepare students for provisional certification in New York State as teachers in Home Economics (Option Ia) and as teachers of Health (Option Ib) in secondary schools. These options are frequently selected also by students preparing for work in Cooperative Extension and for educational roles in community agencies and industry.

**In Social Work** Option II is designed to meet the recommendations for undergraduate curricula of the Council on Social Work Education. (Accreditation is being sought under the auspices of this body.) Option II prepares students for entry-level employment in social work, in community organization and program development, and serves as preparation for graduate study in social work and other hu-

man services professions in which an integrated program in social science learnings, their application and supervised practice in relevant skills is valuable.

Students interested in the above areas should consult with faculty members in the department or members of the departmental council for current information about programs. Requirements for the department major are also available from the Division of Academic Services. Details of the field-experience requirements will be available before preregistration.

The graduate program in Community Service Education is a part of the Field of Education. The general M.S. and Ph.D. may be earned, as well as the professional degrees M.A.T. and Ed.D.

Students' programs emphasize concepts and methods of inquiry in those social sciences that have relevance for dealing with problems of program planning, implementation, and evaluation.

Requirements for all graduate degrees in education, and the types of majors available, are stated in the *Announcement of the Graduate School*. Applicants are required to submit scores on the aptitude test of the Graduate Record Examination; under certain circumstances, the Miller Analogies Test is an acceptable substitute for the G.R.E.

Sufficient assistantships are available in the Department of Community Service Education to provide financial support as well as relevant professional experiences for many students. College and University fellowships also are available.

Students seeking additional detailed information about the graduate programs in this department should write to: Graduate Field Representative, Department of Community Service Education, Cornell University, Ithaca, New York 14850.

The department has new and excellent facilities for teaching, research, and experimentation with educational technology. Co-operative relationships are maintained with human service agencies in local and large urban centers for observation, participation, and research.

### **101 Introduction to Community Services.**

Fall term. Credit three hours. Open only to freshmen, sophomores and new transfer students. CSE majors have priority at preregistration. T Th 11:15-12:35. K. Rhodes.

The course is designed to provide a basic understanding of the role of community services designed to assist individual growth and the development of the family as an interdependent life support system. The purpose and focus of ongoing services concerned with health, education, and welfare will be examined in relation to their function in the community. Students will observe several community services.

### **246 Ecological Determinants of Behavior.**

Fall term. Credit three hours. Prerequisite: HDFS 115. Limit 30 students. T 8:00-9:55. B. J. Mueller.

The introductory lectures are a discussion of the major determinants of human behavior—physiological, social, psychological, historical, ethological and ecological—followed by a more specific consideration of social and psychological determinants. Emphasis is given to applications in clinical practice. Three developmental theories are presented: symbolic interaction (G.H. Mead), ego psychology (E. Erikson, preceded by a brief review of Freudian psychoanalytic theory) and behavioral analysis (F. Keller, and S. Bijou and D. Baer). These theories of human development represent a diachronous approach to understanding behavior. The second half of the semester is allocated to a synchronous (or social systems) approach. Social role analysis through use of face sheet data such as (1) name, (2) address, (3) age, (4) sex, (5) ethnicity, (6) education, (7) occupation, (8) marital status, and (9) religion illustrate the application of role analysis to change-agent interventions.

**292 Research Design and Analysis.** Fall and spring terms. Credit three hours. Prerequisite: HDFS 115 or basic course in psychology. W F 10:10-11:25. S. Blackwell.

Basic concepts in research design and analysis are considered. Assignments and discussion focus on helping students to read research reports with greater understanding and to contribute more effectively to program evaluation and other research enterprises. Actual experience with segments of evaluation/research include, among others: analysis of reports, variable definition and measurement, and data analysis and interpretation.

### **300 Special Studies for Undergraduates.**

Fall and spring terms. Credit and hours to be arranged. Department faculty. For special arrangement of course work necessitated because of nonequivalent training in a previous major or previous institution.

Students prepare two copies of a description of the study they wish to undertake. One, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. Students obtain forms to be used from their counselors.

### **✓ 302 The Structure of Community Services.**

Fall and spring terms. Credit two hours. CSE majors have priority. M W 2:30-4:25 first 7 weeks. M. Altman.

This course is designed to provide a basic understanding of the nature and structure of human services on a community level. Emphasis is placed on the interactions and linkages between institutions and agencies and the impact of needs, values, goals, and constraints on the structure and delivery of services.

**303 Organizational Behavior.** Fall and spring terms. Credit two hours. M W 2:30-4:25 second seven weeks. J. Wright.

An analysis of organizational structure and behavior at the community service agency level. Content includes such topics as organizational goals and objectives, policies and practices, positions and roles, formal and informal organization, decision making and citizen/client participation. Consideration will be given to the impact of these phenomena on service delivery and on means of assessing the effectiveness of service delivery.

**304 Small Group Process.** Fall and spring terms. Credit 2 hours. CSE majors only. Limited to 20 students per section. Offered first and second 7 weeks. Section No. 1 is offered the first seven weeks of the term; Section No. 2 is offered the second seven weeks. Indicate at preregistration which section you prefer. Fall: M W 2:30-4:25. Spring: M 2:30-4:25, W 10:10-12:05. I. Imbler.

The course is an introduction to theory and research in the dynamics of small groups. In addition to becoming acquainted with the literature, students will take part in a small group laboratory in which they will have opportunity to increase their understanding of the effect of their own behavior in a small group and to increase their repertoire of skills in harnessing the dynamics of a group for productive work. The weekend preceding the start of classes should be reserved for a two-day group interaction experience.

**305 Effecting Change in Community Service.** Fall and spring terms. Credit two hours. W 8:00-9:55 second seven weeks. D. Barr.

The purpose of this course is to provide knowledge and skills in the dynamics of planned change. Students will be expected to know organizational theory principle of development and the process of planning for organizational change in areas of community services.

**306 Program Planning.** Fall and spring terms. Credit two hours. M W 8:00-9:55 first seven weeks. M. Altman.

Provides a basic understanding of the program planning and development process in various community institutions and agencies. Emphasis is placed on the objectives, principles, and concepts that facilitate or constrain the translation of philosophies and policies into program realities. The course will be organized around large group discussions and small groups by area of professional concern. Section A will be designed for program planning in the community; Section B focuses on program planning in the schools.

**325 Health-Care Services and the Consumer.** Fall term. Credit three hours. S-U grades optional. CSE majors, Options Ib and III, have priority. Maximum enrollment 40. T Th 2:30-4:10. Department faculty.

Developments in the health field that affect the availability and kinds of health services. Emphasis is placed on interrelationships between institutions and agencies, and the part each can play in prevention, diagnosis, and treatment of disease and disability. Visits to institutions and contacts with local agencies will be made.

**330 Ecology and Epidemiology of Health.**

Spring term. Credit three hours. S-U grades optional. T Th 2:30-4:10. Department faculty. Ecological and epidemiological approaches to the problems of man in achieving health in interaction with his physical, social, and mental environment. The course will introduce the student to epidemiological methods and survey the epidemiology of specific diseases.

**340 Clinical Analysis of Teaching.** Fall and spring terms. Credit one hour. Prerequisite or parallel: Education 411. CSE majors in Options Ia and Ib have priority. Th 2:30-4:30. M. Minot and B. Bradlyn.

Teaching episodes are analyzed in terms of principles of educational psychology. Emphasis is on a clinical analysis of teaching, strategies, and classroom interaction. Microteaching gives students an opportunity to develop technical skills of teaching and to develop self-evaluative ability in the analysis of teaching.

**370 Issues in Social Welfare.** Fall term. Credit three hours. CSE Option II majors have priority. Limited to 30 students. W 8:45-11:00. J. Webb.

This course is designed to provide students with a philosophical and historical introduction to social welfare services. It reviews the basic premises, societal, and social value contexts from which social programs and the profession of social work have evolved. From this background it discusses the political and ideological processes through which public policy is formed and how policies are translated into social welfare programs. The historically basic issues in welfare are discussed in the context of present program designs, public concerns, and the interrelationships and support of services in the community.

**400-401-402 Special Studies for Undergraduates.** Fall and spring terms. Credit hours to be arranged. Department faculty.

For independent study by an individual student in advanced work not otherwise provided in the department; or for study, on an experimental basis, with a group of students in advanced work not otherwise provided in the department. Students prepare two copies of a description of the study they wish to undertake. Forms for this purpose are available from the Division of Academic Services. One form, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials, or within the change-of-registration period after registration. The second copy is left with the instructor. In order

to ensure review before the close of the pre-registration or change-in-registration period, early submission of the special studies form to the department chairman is necessary. Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study.

**400 Directed Readings:** For study that predominantly involves library research and independent reading.

**401 Empirical Research:** For study that predominantly involves data collection and analysis or laboratory or studio projects.

**402 Supervised Fieldwork:** For study that predominantly involves participation in community or classroom settings.

**411 Introduction to Adult Education.** Fall term. Credit three hours. S-U grades optional. CSE majors have priority at preregistration. T Th 8:00–9:55. L. Noble.

Focuses on the broad aspects of adult education, types and scope of adult education programs, philosophy and principles of adult education, and community and organizational factors affecting development of adult programs. Opportunity will be provided for field trips, for observation of adult education programs in business and industry and in community organizations and agencies.

**414 Practicum.** Fall term. Credit six hours. Open only to CSE Option III majors who have completed the prerequisites planned with their adviser. Consent of the Option III adviser required. Time for seminar to be arranged. I. Imbler and staff.

Includes field orientation and a full semester of practicum two full days a week or its equivalent and a concurrent seminar. In 1973–74 assignments will probably be in Ithaca or the surrounding area. Field assignments will be arranged by the department and supervision will be provided cooperatively by the department and the field agency or program.

**415 Practicum.** Spring term. Credit six hours. Open only to CSE Option III majors who have completed the prerequisites planned with their adviser. Consent of the Option III adviser required. Time for seminar to be arranged. I. Imbler and staff.

Includes field orientation and a full semester of practicum two full days a week or its equivalent and a concurrent seminar. In 1973–74 assignments will probably be in Ithaca or the surrounding area. Field assignments will be arranged by the department and supervision will be provided cooperatively by the department and the field agency or program.

**416 The Helping Relationship.** Spring term. Credit three hours. S-U grades optional. Enrollment by permission of the instructor before preregistration. Limited to 20 students. T 2:30–4:25, Th 10:10–12:05. I. Imbler.

Includes theory, research, and training in interpersonal skills and attitudes necessary to the helping relationship. Training includes sensitivity sessions and skill practice exercises.

**[417 Principles of Guidance and Counseling.** Credit three hours. Th 10:10–12:05. Department faculty.

A survey of the literature, practice, and principles of academic, vocational, and personal counseling for students who will be teaching in school, industrial, and informal educational settings. While not designed as a professional course for counselors, practicum experience in peer counseling may be arranged. Not offered 1973–74.]

**424 Internship in Health Education.** Fall term. Credit six hours. Hours to be arranged. C. Reed and staff.

Designed to enhance the development of Health and Drug Education Coordinators in New York State, helping them to better relate to their near environment the wide array of health services, both school and community based, within their normal field of contact.

**425 Internship in Health Education.** Spring term. Credit six hours. Hours to be arranged. C. Reed and staff.

Designed to enhance the development of Health and Drug Education Coordinators in New York State, helping them to better relate to their near environment the wide array of health services, both school and community based, within their normal field of contact.

**431 Supervision of Paraprofessionals in Human Services.** Spring term. Credit three hours. Th 9:05–12:05. B. Bradlyn and J. Wright. For persons who anticipate working with paraprofessionals in community service settings. The course will focus on the nature of professionalization; roots of paraprofessionalism; the New Careers concept; models of utilization of paraprofessionals; and team-building skills required by the professional. Attention also will be given to organizational practices that facilitate differentiated staffing.

**441–442 Practicum Experience.** (Options Ia and Ib). Permission of option advisers. Prerequisites: Ed 411, CSE 340, CSE 306. Department staff.

This sequence of courses involves observation and participation in the home economics or health programs of one or more schools in communities near Ithaca. Special scheduling is required for CSE 441 and 442. The instructional resource center is available for independent study throughout the year for all registered students.

**441 The Art of Teaching.** Fall and spring terms. Credit two hours. To be scheduled concurrently with CSE 442. This course is blocked during the first seven weeks of the term. T Th 10:10–12:05 and additional hours by arrangement. B. Bradlyn and S. Blackwell.



Consideration is given to major concerns related to evaluation, management, and philosophy of teaching at the secondary level.

**442 Teaching Practicum.** Fall and spring terms. Credit six hours. Student teaching full time for last seven weeks of term. Guided student teaching experience with students assigned to cooperating public schools. Student teachers are required to live in the school communities and work under the guidance of both local teachers and department faculty.

**443 Critical Issues in Education.** Fall and spring terms. Credit two hours. M 12:20-2:15. This course is blocked during the first seven weeks of the term. R. Babcock. An examination of current issues in education. Analysis of the historical, philosophical, social, and political factors that affect the issues.

**444 Career Environment and Individual Development.** Spring term. Credit two hours. M 12:20-2:20. R. Babcock.

An analysis of the extent to which work, jobs, and careers relate to and shape the behavior of individuals. Topics considered are theories of occupational choice, job satisfaction, structure of the labor force, manpower projection, and career planning. The course provides opportunities for students to examine their own vocational aspirations. At the same time, emphasis is placed on how the helping professional deals with his clients or students in preparing for, adjusting to, and maintaining jobs and careers.

**445 Community Field Study.** Spring term. Credit six hours. This course is blocked the first seven weeks of the semester. It can be blocked with CSE 442 and 441. As this course requires special arrangements, permission of the instructor is required at preregistration. For CSE majors in Option Ia and Ib desiring a six-credit field study prior to or connected to CSE 442. B. Bradlyn.

Field experience focused upon (1) a community study, (2) understanding of families and community services in a neighborhood, and (3) work in a school-related community service, for example, Cooperative Extension, neighborhood center, or other service area of interest. A weekly seminar will focus on an interpretation and analysis of experiences with implications for the role of a teacher.

**446 Undergraduate Seminar.** Fall and spring terms. Credit one to three hours. F 10:10-12:05. For students in CSE Option Ia and Ib. S-U grades optional. Seminar is blocked during the first seven weeks of the term. M. Minot and department faculty.

One or two major issues related to the teaching of home economics and health will be considered each term. For example: teaching disadvantaged urban youth; the middle school program; occupational education related to

home economics and health; evaluating effectiveness of different techniques of health education. May be repeated for credit with permission of the instructor.

**471-472 Social Work Practice I and II.** Fall and spring terms. Credit nine hours each semester. Enrollment limited to 20 students. Prerequisite: CSE 370. CSE 471 is a prerequisite of CSE 472. Limited to CSE Social Work majors with junior or senior standing. CSE 471 Fall W F 10:10-12:05; CSE 472 Spring M W 12:20-2:15. M. Altman and B. J. Mueller.

An introduction to social work practice through an integrated field and methods course. Comparison and contrast of concepts and skills used in casework, group work and community work. Field experience in problem-solving activities with individuals, families, groups and communities. Examination of the value base of social work practice. The class meetings are integrated with two days of field instruction each week. Supervised field placements are made in selected social agencies in Tompkins, Tioga, Chemung and Steuben counties.

**473-474 Special Problems and Fields In Social Work.** Fall and spring terms. Credit three hours. Priority to CSE Option II majors. CSE 473 Fall M 2:30-3:20 W 10:10-12:05; CSE 474 Spring W 10:10-12:05 F 10:10-11. M. Altman, B. J. Mueller, J. Webb.

These seminars are primarily designed for seniors in the Social Work curriculum. Building on the core curriculum and the social work practice courses, the seminars will attempt to integrate theoretical, research, and practical considerations in the examination, in depth, of specific problems and areas of social work. Topics for each year will be selected in consultation with students enrolled in CSE 472 during the preceding spring semester.

**600 (500) Special Problems for Graduate Students.** Fall and spring terms. Credit and hours to be arranged. S-U grades optional. For students recommended by their chairmen and approved by the instructor in charge for independent, advanced work. Department faculty.

**602 (502) The Structure of Community Services.** Fall and spring terms. Credit two hours. Graduate section of CSE 302. CSE majors have priority. M W 12:20-4:25. Observation in 302 required. M. Altman.

This course is designed to provide a basic understanding of the nature and structure of human services on a community level. Emphasis is placed on the interactions and linkages between institutions and agencies, and the impact of needs, values, goals, and constraints on the structure and delivery of services. In addition to general class sessions, graduate students attend an additional weekly seminar to study, in depth, a specific service system, an organization within that system, and a study

of the constraints within which that organization must function.

**610 (510) Seminar in Adult Education.** Fall term. Credit three hours. S-U grades optional. T 7-9:55 p.m. I. Imbler and J. Wright. Designed to deal with significant problem areas in adult education. Implications of theory and research in the problem area will be important considerations. One specific problem area will be considered each time the seminar is offered, the particular area to be announced at pre-registration time. The seminar may be repeated with permission of the instructor.

**631 (531) Seminar on Human Service Programs.** Spring term. Credit three hours. S-U grades optional. Previous experience as a professional in a human service setting required. T 7-9:55 p.m. J. Wright and C. Reed. For persons who anticipate working with para-professionals in community service setting. The course will focus on the nature of professionalization; roots of paraprofessionalism; the New Careers concept; models of utilization of para-professionals; recruitment, selection, training, and evaluation of paraprofessionals; and team-building skills required by the professional. Attention will also be given to organizational practices that facilitate differentiated staffing.

**650 (550) Comparative Studies of Family Education Services.** Fall term. Credit three hours. S-U grades optional. W 1:25-3:20. K. Rhodes. Factors related to planning educational human service programs for rural and urban families in developing countries. Methods of need assessment, program development and evaluation appropriate to rural and urban programs.

**[670 (570) Seminar in Higher Education.** Fall term. Credit three hours. S-U grades optional. K. Rhodes. Analysis of significant current topics in higher education with emphasis on problems of preparation for professional work in community services. Not offered 1973-74.]

**671-672 (571-572) The Teacher Educator in Home Economics.** For graduate students preparing for teacher education positions involving supervision of student teachers. Permission of the instructors is required. Previous experience in teaching home economics at the secondary level is required for CSE 572.

**671 (571)** Fall term. Credit three hours. Class hours, observations and practice experiences to be arranged in the field. H. Nelson. Opportunity is provided for students to develop understanding of teacher education practices by observing and participating in the undergraduate program. Participation involves teaching and individual work with students. Additional experiences include observation of student teachers and the supervisory conferences in student teaching centers.

**672 (572)** Spring term. Credit four hours. Hours to be arranged. Observation and participation first half of the semester, and weekly half-day or full-day field trips for last half of the semester. M. Minot.

Seminar is concerned with basic principles of supervision and their application to the pre-service education of home economics teachers. Opportunity is provided for observation and participation in CSE 340, CSE 441, and CSE 442, including some teaching in the courses and the supervision of a student teacher.

**679 (579) The Teaching of Home Management in College.** Spring term. Credit one to three hours. Permission of the instructor is required. Hours to be arranged. A. Davey.

**680 (580) Seminar in Community Service Education.** Fall and spring terms. Credit one hour. S-U grades only. Department faculty. T 12:20-1:15.

An informal seminar for graduate students and faculty. One or two major topics to be considered each term. May be repeated for credit with permission of instructor.

**684 (584) Bases for Instructional Program Planning.** Spring term. Credit three hours. For professionals concerned with educational programs. Students without professional experience are admitted by permission of the instructor. W F 8:25-9:55. K. Rhodes. Structural-functional analysis as a system for studying instructional programs. The concept of curriculum structure, function and process and its application to practical problems of instructional program and course development. Opportunity provided for students to work on individual or group projects related to their special interests.

**690 (590) Evaluation.** Fall term. Credit three hours. For professionals concerned with behavioral change: extension agents, social workers, educational program directors, high school and college teachers and administrators, research workers. Students without experience in any of these professional positions are admitted by permission of the instructor. T Th 11:15-12:30. H. Nelson.

Basic principles of evaluation studied in relation to specific methods of appraising progress toward objectives of behavioral change. Opportunities will be given for constructing and using evaluation instruments.

**718 (618) Designing Human Service Programs.** Fall term. Credit three hours. M 7-10 p.m. I. Lazar. Permission of the instructor is required.

This course will explore methods of translating human services research into programs for service to communities and individuals. Operational design, staffing, budget preparation, fund raising, and community auspice development, as well as evaluation, administration, and program change will be discussed. Students will

be expected to fully design a local service program.

**719 (619) Developing Systems for the Delivery of Human Services.** Spring term. Credit three hours. M 7–10 p.m. I. Lazar. Permission of the instructor is required.

This seminar will describe various attempts to build consolidated systems for delivery of human services at local, state, and federal levels. An assessment of these efforts will be followed by an examination of new system designs and the specification criteria for the measurement of system effectiveness. It will be assumed that students in this course are already familiar with the present service structure of typical communities.

**[720 (620) Strategies for Community Change.** Fall term. Credit three hours. Limited to doctoral candidates. M 7–9:55 p.m. I. Lazar. Not offered 1973–74.

The application of behavioral and social science to planned organizational change. Principles of program planning and the derivation of program objectives from policy and contextual variables in a community. Alternative strategies and their relevant application to community change.]

**[721 (621) Strategies for Community Change.** Spring term. Credit three hours. Limited to doctoral candidates. M 7–9:55 p.m. I. Lazar. Not offered 1973–74.

Case histories of community change will be utilized as a basis for understanding how strategic choices are applied. Ongoing programs of change will be examined, and students will be involved in designing concrete projects in the development and improvement of community programs. Where possible, direct participation in ongoing programs will be arranged.]

**773 (673) Internship and Field Work in Teacher Education.** Fall and spring terms. Credit two hours. S-U grades optional. Prerequisites: CSE 571 and CSE 572. Hours to be arranged. M. Minot and H. Nelson.

Involves supervision of student teachers and conferences as needed with college supervisor and cooperating teachers in the schools. Provision made for a follow-up visit to a first-year teacher.

**[775 (675) Administration and Supervision Practicum.** Spring term. Credit two hours. S-U grades optional. Permission of the instructor required. K. Rhodes.

Analysis of principles of supervision and administration in educational institutions through directed observation of the organization of state, city, and college programs concerned with aspects of community service education. (Approximate cost of field trips, \$35.) Not offered in 1973–74.]

**[790 (690) Seminar in Evaluation.** Spring term. Credit two hours. S-U grades optional.

Prerequisites: CSE 590 and Education 453 or equivalents. S. Blackwell.

Opportunity for intensive study of literature concerning selected topics in evaluation, for refinement of appraisal techniques, and for carrying out an evaluative study related to current departmental research. Not offered in 1973–74.]

**899 (599) Master's Thesis and Research.**

Fall and spring terms. Credit and hours to be arranged. S-U grades optional. Registration with permission of the chairman of the graduate committee and the instructor. Department graduate faculty.

**999 (699) Doctoral Thesis and Research.**

Fall and spring terms. Credit and hours to be arranged. S-U grades optional. Registration with permission of the chairman of the graduate committee and instructor. Department graduate faculty.

## Consumer Economics and Public Policy

Gwen J. Bymers, Chairman; Marjorie Galenson, Graduate Field Representative

The central concern of this department is the welfare of the consumer in society. Programs of study, research, and public service emphasize not only family spending for material goods and services such as housing, food, and clothing but also family and social investment in human capital. The faculty, comprised of social scientists from several disciplines, also are interested in the effects of social and economic policies on consumer behavior and human welfare at all levels of society. An expanding concern for consumer well-being on the part of both government and private industry indicates that consumer economics is a growing field.

The department offers programs leading to the bachelor, master, and doctoral degrees. At the undergraduate level, the student is offered three options: consumer economics, housing, and public policy.

**Consumer Economics** is concerned with the welfare of the consumer in the private, semi-public, and public sectors of the economy, particularly as these operate to affect the real level of living of families. Emphasis is placed on the allocation by consumers of scarce resources, including time and money.

An option in the area of consumer economics requires a strong base in those subjects that contribute to an understanding of a market economy and consumer rights and responsibilities.

Consumer economics graduates find careers in governmental agencies providing consumer services. They also work with business and industry in consumer relations divisions.



**Housing**—a major social problem—is studied through an interdisciplinary approach that includes social, economic, and political dimensions. This option focuses on the economics of housing consumption and production; the social implications of housing—preferences, mobility and neighborhoods; housing market analysis; and international housing.

Emphasis is placed on the development of social science research skills for the analysis and solution of housing policies and other problems.

Recent graduates are in housing positions at the federal, state, and local government levels.

**Public Policy** is concerned with helping students master tools and approaches useful in analyzing policy issues. The policy issues covered relate to fundamental problems affecting the household, such as education, health, environment, and urban development. The techniques of welfare economics are one means of evaluating the social implications of alternative ways of allocating resources. Attention is given to the impacts that the larger economic, social and political environments have on the development of public policy.

Students are encouraged to check the inter-departmental courses on page 3.

Students seeking additional detailed information about the graduate programs in this department should write to: Graduate Field Representative, Department of Consumer Economics and Public Policy, New York State College of Human Ecology, Cornell University, Ithaca, New York 14850.

**100 Introduction to Consumer Economics and Public Policy.** Fall term. Credit three hours. S-U grades optional. M W F 10:10–11. M. Galenson and C. Babb.

An introductory course designed to provide a basic understanding of macroeconomics with particular concern for those areas having an impact on families. The course will cover national income accounting, income distribution, prices, and monetary and fiscal policy. This will serve as a basis for the study of income redistribution programs and other areas of government action.

**147 Housing and Society.** Fall and spring terms. Credit three hours. S-U grades optional. Enrollment limited to 20 students per section, five sections. Information regarding special section hours will be available at preregistration. Lecture, fall term, T Th 10:10 and 11:15, limited to 50 students each class period; spring term, T Th 11:15. Special additional meeting times to be arranged. M. Winter and J. Wysocki.

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 implications of the problems for housing the American population, and govern-

mental actions undertaken to alleviate housing problems.

**148 Housing Perspectives.** Spring term. Credit three hours. S-U grades optional. Prerequisite: CEPP 147. Enrollment limited to 12 students per section, five sections. Information regarding special section hours will be available at preregistration. Lectures, T Th 10:10. Department faculty.

An analysis of housing and the neighborhood from various disciplinary perspectives including sociological, political, and economic approaches. Specific topics discussed under the several approaches may differ from year to year.

**230 Problems in Providing Consumer Goods.** Fall term. Credit three hours. S-U grades optional. Economics 101–102 recommended. M W F 8. G. Bymers.

The basis for a better understanding of the market economy as it is concerned with the distribution of consumer goods. Emphasis is on the joint interest of industry, consumers, and the government in an efficient distribution system. Areas covered include identification of the consumer interest, sources of consumer information and protection, and a discussion of current consumer issues. Occasional field trips may be taken in place of class meetings.

**248 Housing Regulation and Housing Programs.** Fall term. Credit three hours. S-U grades optional. Prerequisite: CEPP 147 or permission of the instructor. T Th 1:25–2:40. L. Bower.

An analysis of institutional controls governing the production, distribution, and consumption of housing with emphasis on those having impact on the availability and use of housing in local communities. Coverage includes controls deriving from property such as exercise of the police power (zoning, subdivision controls, building and housing codes), eminent domain, taxation, deed and lease restrictions, private covenants, legal aspects of home acquisition and financing, landlord-tenant relationships, as well as those resulting from the interface of legislative, judicial, and administrative control of housing and renewal programs.

**300 Special Studies for Undergraduates.** Fall and spring terms. Credit and hours to be arranged. Department faculty. For special arrangement of course work necessitated because of nonequivalent training in a previous major or previous institution.

Students prepare two copies of a description of the study they wish to undertake. One, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. Students obtain forms to be used from their counselors.

**320 Economics of Consumption.** Fall term. Credit three hours. S-U grades optional. Prerequisite: Economics 101-102 or equivalent. M W F 10:10. W. Gauger.

This survey of the economics of consumption includes the following major topics: history of empirical studies of consumer behavior, economic theory of consumer behavior, the work-leisure choice and its relation to plans for income maintenance, influences and constraints affecting the rationality of consumer choice, past trends and present levels of income and consumption in the United States, intercountry comparisons of consumption, the development of standard budgets and their use, and predicted future patterns of consumption.

**330 Management in Relation to Personal Finances.** Spring term. Credit three hours. S-U grades optional. Enrollment limited to 75 students, preference given to juniors and seniors. M W F 9:05. Department faculty.

The study of personal financial management at various income levels and during different stages of the family life cycle. Topics covered will include the use of budgets and record keeping in achieving family economic goals; the role of credit and the need for financial counseling; economic risks and available protection; and alternative forms of saving and investment.

**333 Principles of Marketing.** Spring term. Credit three hours. S-U grades optional. Prerequisite: microeconomics. M W F 8. N. Conklyn.

A study of marketing functions, institutions, policies, and practices with emphasis on their role in creating consumer satisfaction. Current problems are identified for in-depth study. A field trip to New York City to study selected marketing operations is arranged when feasible.

**341 Fundamentals of Housing Economics.** Fall term. Credit three hours. S-U grades optional. Prerequisite: Economics 101-102 or equivalent. M W F 9:05-9:55. C. Daniels.

Designed to give the student a basic understanding of the structure and operation of the housing market. The economic determinants of housing supply and demand are related to (1) levels of housing consumption and housing standards, (2) the composition of the housing inventory, and (3) levels of and fluctuations in housing production. The influence on the housing market of institutional forces, including building codes, zoning, finance, and taxation, is also examined.

**349 Provision of Housing in the United States.** Spring term. Credit three hours. S-U grades optional. Prerequisite: CEPP 147 or permission of instructor before preregistration. T 11:15-12:05, Th 11:15-1:10. L. Bower.

An analysis of the impact of social and technological change upon the structure, opera-

tions, and performance of various housing submarkets and their productive mechanisms. Particular attention will be given to governmental programs designed to alter performance in furthering current and emergent societal goals.

**355 Economic Conditions in Relation to the Welfare of Families.** Fall term. Credit three hours. S-U grades optional for nonmajors. Open to sophomores, juniors, and seniors. Graduate students may elect to audit and write a research paper for one to two credits under CEPP 500. Prerequisite: Economics 101-102 or equivalent. T Th 11:15-12:30. E. Vatter.

Examination of contemporary economic problems that affect the welfare of families in the United States. Examples are affluence and poverty; monetary and fiscal policies as these affect families; efficacy of the delivery of public services in the area of health, education, subsidized housing, etc. Where relevant, the historical origin of these problems will be studied.

**400-401-402 Special Studies for Undergraduates.** Fall and spring terms. Credit hours to be arranged. Department faculty.

For independent study by an individual student in advanced work not otherwise provided in the department; or for study, on an experimental basis, with a group of students in advanced work not otherwise provided in the department. Students prepare two copies of a description of the study they wish to undertake. Forms for this purpose are available from the Division of Academic Services. One form, signed by both the instructor directing the study and the head of the department, must be filed with pre-registration materials, or within the change-of-registration period after registration. The second copy is left with the instructor. In order to ensure review before the close of the pre-registration or change-in-registration period, early submission of the special studies form to the department chairman is necessary.

Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study.

**400 Directed Readings:** For study that predominantly involves library research and independent reading.

**401 Empirical Research:** For study that predominantly involves data collection and analysis or laboratory or studio projects.

**402 Supervised Fieldwork:** For study that predominantly involves participation in community or classroom settings.

**411 Time-Use Decisions in Families.** Fall term. Credit three hours. S-U grades optional. Prerequisite: one course in sociology and one in microeconomics or consent of instructor. T 8-9:55, Th 9:05-9:55. K. Walker.

Time as a human resource in a consumer-oriented society with emphasis on its alterna-

tive uses in households. The meaning of time and implications of its use to society and to families. Critical review of research in use of time. Individual projects applied to special professional interests of students.

**413 Exceptional Families: An Ecological Approach to Their Resource Management.** Spring term. Credit two to four hours, depending on students background and special field experience. S-U grades optional. Consult instructor before registering. T 9:05–9:55, Th 9:05–11. K. Walker.

Examination of special managerial problems faced by families with exceptional imbalances in different resources. Analysis of techniques of compensating for resource limitations in families in poverty, with health handicaps, with young mothers in the labor force, one-parent families, student couples, and retired couples. Students are expected to work independently in assembling and evaluating materials relevant to resource management. Case studies. Field trips.

Suggested for students preparing to work with families in health and rehabilitation programs, social work, geriatrics, adult education programs, and financial counseling. Field experiences build on student's specialization within Human Ecology.

**425 Economics of Recreation and Leisure.** Spring term. Credit three hours. S-U grades optional. Prerequisite: microeconomics; a course in sociology also recommended. W F 2:30–3:45. W. Gauger.

This course focuses on the recreational use of leisure time. The framework of analysis employs a view of recreational activity as a consumer good resulting from an economic decision by the individual or household as to allocation of scarce resources—time and money. The contributions of other social sciences will also be examined for additional insights. Empirical studies are reviewed in terms of alternative recreation theories.

**443 The Social Effects of the Housing Environment.** Spring term. Credit three hours. S-U grades optional. Prerequisite: CEPP 147 or CEPP 148. M W F 11:15. M. Winter.

A seminar dealing with the extent to which social ends may be accomplished through manipulation of the housing environment. Physical and social deterministic viewpoints will be considered. The approach will be based on critical analysis of research in the field.

**465 Consumer and the Law.** Spring term. Credit three hours. S-U grades optional. Prerequisite: CEPP 230 or permission of the instructor before preregistration. T Th 11:15–12:30. M. Galenson.

The emphasis will be on the work of the federal agencies and on court decisions as these affect consumers in the market. Topics covered will include liability for injury from consumer prod-

ucts; laws covering safety of drugs, labeling, and advertising; and the consumer problems arising from ignorance and poverty.

**472 Community Decision Making.** Fall term. Credit three hours. S-U grades optional. Prerequisite: junior standing. M 1:25–4. A. Hahn. Course designed primarily for students interested in the political aspects of public policy questions at the local community level. The course will concentrate on the investigation of relationships between individuals and the political system. It will consider political participation, decision-making processes and structure, community conflict, and community change. Concurrent participation in community activities is desirable but not required.

**480 Welfare Economics.** Fall term. Credit three or four hours. S-U grades optional. Prerequisite: consent of the instructor before preregistration. M W 11:15–12:30. S. Clemhout. A study of the social desirability of alternative allocation of resources. Topics include Pareto optimality, external effects in production and consumption with applications to problems of environmental quality, public expenditure decisions, measurement of welfare, and evaluation of relevant public policy issues.

**485 Public and Private Decision Making.** Spring term. Credit three hours. Prerequisite: an intermediate economics course or the equivalent. T Th F 1:25–2:15. C. Babb.

A study of formal models dealing with the operations of coalitions within bureaucracies and electorates. Consideration will be given to the effects which organizational structure and voting strategies have upon the decision-making process. The topics to be covered will be complementary to the subjects dealt with in courses in welfare economics.

**498 Senior Thesis, Part I, for the Housing Option.** Fall term. Credit two hours. S-U grades optional. Prerequisites: CEPP 147, a minimum of six additional credit hours of housing courses and permission of instructor. Time to be arranged. Department housing faculty. Consideration and discussion of current research in housing. Student will develop a senior thesis topic. Students wishing to substitute six semester hours of CEPP housing courses approved by the department for the CEPP 498–499 sequence may do so.

**499 Senior Thesis, Part II, for the Housing Option.** Spring term. Credit three hours. Prerequisites: CEPP 498 and the consent of adviser before preregistration. Hours to be arranged. Department housing faculty. Student will prepare an undergraduate senior thesis. Students wishing to substitute six semester hours of CEPP housing courses approved by the department for the CEPP 498–499 sequence may do so.

**600 (500) Special Problems for Graduate Students.** Fall and spring terms. Credit and

hours to be arranged. S-U grades optional. For graduate students recommended by their chairman and approved by the head of the Department and the instructor in charge for independent, advanced work. Department faculty.

**[601 (501) Research Design and Analysis in the Social Sciences.** Spring term. Credit two hours. S-U grades optional. Prerequisites: introductory statistics course and permission of the instructor. W 2:30-4:25. E. Vatter. Not taught in 1973-74.

The course is a general introduction to the design and analysis of research. The emphasis will be on research methods for social and economic studies. The meaning of science, patterns of scientific investigation in the social sciences, and their applicability to selected concepts in the departmental area. The course is designed for first- or second-year graduate students. Its purpose is to help students achieve the ability to make critical evaluation of pertinent research findings and to design sound studies of their own.]

**619 (519) Seminar in Family Decision Making.** Fall term. Credit three hours. S-U grades optional. Consult instructor before registering. T Th 10:10. A. Davey.

Decision-making processes in relation to family goals and goal implementation are studied. The situational factors that restrict alternatives and resources that expand alternatives are investigated as well as the criteria used in selection of alternatives. Emphasis is placed on the total decision event.

**620 (520) Consumption Theory.** Fall term. Credit three hours. S-U grades optional. Prerequisite: intermediate economic theory or permission of instructor. W F 2:30-3:45. W. Gauger and M. Galenson.

This course presents the major developments in the micro- and macroeconomic theory of consumption. Topics include the theory of utility and preference, substitution and income effects, permanent and relative income hypotheses, aggregate consumption, and the consumption implications of alternate growth models.

**621 (521) Explorations in Consumer Economics.** Spring term. Credit three hours. S-U grades optional. Prerequisite: intermediate economic theory or permission of instructor. M 2:30-4. W. Gauger.

Students with guidance from instructor will undertake an independent investigation in a broad area of consumer economics such as: income maintenance, consumer protection, intercountry consumption indices, income distribution, theoretical advances in consumption theory. Effort will be oriented toward and evaluation based on student's final presentation, which may take one of the following modes: departmental seminar, learning module, guest

lecture in undergraduate course, article for publication, paper delivered at Cooperative Extension Conference or professional meeting.

**630 (530) Family Financial Management.** Spring term. Credit three hours. S-U grades optional. Prerequisite: CEPP 330 or equivalent. F 11:15-1:10. E. Wiegand.

Family financial management is studied with emphasis on the role of the financial consultant. Each student is expected to work on an individual basis with one or more families. The course is designed to increase students' awareness and knowledge of the characteristics of persons who have serious financial difficulties, of the complexity of factors affecting such persons' situations, of the desirable relationship between helper and helped, and of community agencies and organizations that have appropriate resources.

**640 (540) Fundamentals of Housing.** Fall term. Credit two hours. S-U grades optional. T 3:35-5:15. L. Bower.

An introductory survey of housing as a field of graduate study. Consideration of the spatial context and institutional setting of housing: the structure, operations, and performance of the housing market and the house-building industry; housing finance; the nature, operations, impact, and policy of government housing programs; contemporary housing problems and issues.

**642 (542) Housing Market Analysis.** Fall term. Credit three hours. S-U grades optional. Permission of the instructor is required. Th 2:30-4:25. C. Babb.

Designed to give the student a basic understanding of local housing market operations and mechanisms, including demand determinants, such as demographic, economic, and institutional characteristics; supply determinants, such as the quality, nature, and expected changes of the inventory; and market indicators, such as price, vacancies, and real estate transactions. The first part of the course describes the traditional approach to housing market analysis. The second part is devoted to the description and evaluation of mathematical models in spatially locating required residential activities. Land use and transportation models are used as examples. A field problem is included in the course.

**645 (545) International Low-Cost Housing.** Spring term. Credit three hours. S-U grades optional. T 2:30-3:30, Th 2:30-4. C. Daniels. The major objectives of this course are to present aspects of low-cost housing involving engineering technology, architecture, physical planning, economics, and sociology. Students from these fields, and related fields, will meet for common lectures and discussion periods led by a multidisciplinary faculty group. Group coverage of the topics will be broad in the



hope that all students will understand all the topics. Special effort will be made to present the various topics so that engineers, architects, economists, and sociologists may understand each other's problems and be able to communicate and work together.

Emphasis will be placed on developing, non-industrial countries, although modern principles will be included, since they may apply to all countries. The course should be of primary interest to students from developing countries, as well as to other students interested in basic housing problems.

**[648 (548) The Social Demography of Housing.** Spring term. Credit three hours. S-U grades optional. Th 2:30-4:25. Not offered 1973-74.

The purpose of the course is to develop skills in social and demographic analysis of housing. The dynamic relationships between the size and composition of the population of households and the amount and quality of the housing stock are analyzed in the light of social norms and values relative to housing.]

**649 (549) Production of Housing.** Spring term. Credit two hours. S-U grades optional. Prerequisite: CEPP 540 or permission of instructor. T 3:35-5:15. L. Bower.

An examination of the system of producing shelter in the United States, its structure, and major processes. Focus will be on decision making within existing institutional constraints. Description and evaluation of major subsystems including contractual and speculative home building, the prefabrication industry, mobile home manufacturing, and production of rental housing. Some attention will be devoted to building of "new towns" and production of housing in conjunction with a number of special-purpose governmental programs.

**671 (571) Intergovernmental Relations and Local Community Change.** Spring term. Credit three hours. S-U grades optional. Prerequisite: CEPP 472, equivalent course in local government and politics, or permission of instructor. M 1:25-4. A. Hahn.

Description and analysis of the intergovernmental system with special attention to public problem solving and community change at the local level. What impact do local political systems have on the effectiveness of state and federal programs? In what ways, if any, do state and federal programs alter local political systems?

**680 (580) Applied Welfare Economics—Policy Issues.** Spring term. Credit three hours. S-U grades optional. Consent of the instructor. M W 11:15-12:30. S. Clemhout.

Topics vary from year to year. The objective of the course is to evaluate the economic impact of various policies in conjunction with

the efficiency of existing institutions. Policy issues covered relate to education (effects of automation, etc.), health, and environmental problems (urban development, transportation, i.e.). Attention is given to the interrelationship of policy and planning within the larger economic-sociopolitical framework.

**697 (597) Seminar.** Fall and spring terms. Noncredit course. M 4-5. Department faculty. Planned to orient students to graduate work in the field, to keep students and faculty abreast of new developments and research findings, to acquaint them with subject matter in related areas, and to provide opportunity to examine and discuss problems of the field.

**720 (620) Economics of Consumption.** Spring term. Credit three hours. S-U grades optional. Consult instructor before registering. T 2:30-4:25. M. Galenson.

A review of theories of the consumption function and of the recent literature on family consumption, including demand elasticities; family saving and investment, including investment in human capital; and the economic determinants of the participation of women in the labor force. Particular attention will be paid to the analytical techniques used on empirical data and the problems involved in research in this field.

**740 (640) Seminar in Current Housing Issues.** Spring term. Credit three hours. S-U grades optional. Permission of the instructor required. F 9:05-11. C. Daniels.

Focuses on a selected group of national issues related to housing. The issues evaluated vary from year to year based on current importance and student interest. When possible, this course presents studies in the context of present or recent research, with emphasis on both subject content and methodology.

**743 (643) Readings in Housing.** Spring term. Credit two hours. S-U grades optional. Registration with permission of the instructor. Hours for discussion of readings to be arranged. Department housing faculty.

**758 (658) Seminar for Doctoral Candidates.** Fall term. Credit two hours. S-U grades optional. Department staff.

Review of critical issues and thought in consumer economics and public policy questions.

**899 (599) Master's Thesis and Research.** Fall and spring terms. S-U grades optional. Registration with permission of the instructor and chairman of graduate committee. Department graduate faculty.

**999 (699) Doctoral Thesis and Research.** Fall and spring terms. S-U grades optional. Registration with permission of the instructor and chairman of graduate committee. Department graduate staff.

# Design and Environmental Analysis

Joseph A. Carreiro, Chairman; Mary E. Purchase, Graduate Field Representative

The Department of Design and Environmental Analysis is concerned with the creation, change, and quality control of the physical aspects of our near environment. Beginning with the individual and extending "from the skin to the walls and beyond," the near environment encompasses the space we occupy as we move about in our work and leisure activities, at home and away from home. Our study focuses on people in their surroundings: the needs of individuals and families as affected by space, objects, and materials.

A unique strength of this department arises from the multidisciplinary nature of its faculty, who are trained in the three distinct areas of physical science, social science, and humanities. When faculty members representing such disciplines as chemistry, physics, psychology, sociology, economics, architecture, fine arts, and design are housed in a single department, the inevitable result is diversity and an exciting potential for interaction.

The department offers considerable flexibility to its majors. All students are introduced to basic subject matter in the three areas of design, physical science, and social science—design concepts; the chemical, physical, and structural properties of such materials as textiles, metals, wood, clay, and plastics; psychological, sociological, and managerial analyses of our relationship to our physical environment—and all acquire some ability to apply this knowledge to the design solutions of human problems. From this exposure students elect to specialize in one of the areas and explore it systematically in some depth. At the same time they are encouraged to reach across into the other two areas for advanced knowledge as they find it appropriate.

By the sophomore year each student should select one of the following major options:

**The Design Option** serves students interested in the design of objects, their relationships, and the spaces in which objects are used. Students learn to seek and to apply new knowledge about materials and human needs to the design of the man-made environment. Careers are open in the professional areas of consumer product or industrial design, apparel design, interior space planning, and various aspects of housing design and technology.

**The Materials-Textiles Option** permits students to explore the chemical and physical properties of textiles and an increasing range of other materials and to consider the functional and aesthetic requirements for the use of these materials in the near environment. Professional careers include consumer information pro-

grams, retailing, scientific research, interpreting data for manufacturers, and formal or informal teaching.

**The Human and Social Factors Option** permits students to analyze existing or proposed environments, thus studying the interaction between physical, sociological, and psychological elements in order to learn how we shape the man-made aspects of our near environment and are in turn shaped by them. Professional careers include serving as consultant to designers, architects, interior space planners, and government agencies; working as a team member in rehabilitation of the physically handicapped and the culturally deprived or in creation of environments for children, the ill, or the elderly; acting as liaison between consumer and producer; and filling one of the many creative new positions, such as communication or teaching, that are rapidly emerging in the field of environmental analysis.

Courses in the department are planned to develop creative abilities, artistic judgment, analytical thinking, and problem-solving techniques. Students learn to balance aesthetic, functional, and economic considerations as they confront problems such as: how to design within the restrictions posed by limited space; what materials to choose in clothing, furnishings, or equipment; how to maintain clean, comfortable, and appropriately quiet conditions for work or recreation; how to prevent household soils; how to determine the optimal relationships between color, light, texture, space, and differing emotional and functional requirements. Field study, involving actual experience in the community, is an important aspect of the department's program.

Courses in other departments of the College of Human Ecology and in other colleges of the University may supplement work in design and environmental analysis. Appropriate areas include architecture, city planning, landscape architecture, engineering, sculpture, painting, history of art, theatre, communication arts, hotel administration, marketing, statistics, mathematics, physics, chemistry, anatomy, physiology, psychology, anthropology, sociology, and education.

**An Honors Program** is offered by the department, leading to the Bachelor of Science degree with Honors in Design and Environmental Analysis. Students may apply for admission to the Honors program in the spring semester of the sophomore year. Details of special work beyond that normally required for a major in the department are available through the department chairman.

Graduate study in the Field of Design and Environmental Analysis offers a multidisciplinary program of study individually tailored to the background and interests of the student and leading to a Master of Arts or Master of Science degree. Candidates for the Ph.D.

degree in other fields may minor in either design or environmental analysis. Graduate study may be directed toward empirical problem solving or toward theoretical research into a facet of a problem. Current areas of research include such person-environment-space relations as gerontology, child environment, corridor and lobby functions, modular housing; design of consumer products, apparel and spaces; consumer and marketing studies of household equipment, textile flammability, and textile care, wear, and labeling. Financial aid is provided by teaching and research assistantships for about two-thirds of the graduate students; others may compete for available University and College fellowships (see *Announcement of the Graduate School*).

Students seeking additional detailed information about the graduate programs in this department should write to: Graduate Field Representative, Department of Design and Environmental Analysis, New York State College of Human Ecology, Cornell University, Ithaca, New York 14850.

Unusually fine facilities for study and research include specially equipped textile laboratories; household equipment laboratories; studios for woodwork, ceramics, textile printing, and weaving; a laboratory for studying human and social factors; two nursery schools; and two Design and Environmental Analysis galleries that display professional and student work.

In addition, the department maintains the extensive Cornell Costume Collection, a unique interdisciplinary educational resource that provides design stimulus and historical evidence of the effects of cultural change on the development of apparel arts and crafts.

A graduate in Design and Environmental Analysis can make important contributions to society by providing critical information and creative ideas to individuals and organizations whose final decisions control the quality and characteristics of our near environment.

#### *Design Area*

- 110 Design I: Fundamentals of Design. Fall and spring terms.
- 111 Introduction to Design. Fall term.
- 115 Drawing I. Fall and spring terms.
- 116 Drawing II. Fall and spring terms.
- 117 Drawing the Clothed Figure. Fall and spring terms.
- 144 Workshop in Elementary Clothing Construction. Fall and spring terms.
- 145 Apparel Design I. Fall and spring terms.
- 210 Design II: Composition and Color. Fall and spring terms.
- 251 Historic Design I: Furniture and Interior Design. Fall term.
- 252 Historic Design II: Furniture and Interior Design. Spring term.
- 261 Fundamentals of Interior Design for Non-majors. Fall term.

262 Design III: Form, Structure, and Space. Fall and spring terms.

263 Apparel Design II: Problems in Apparel Design. Fall term.

342 Design: Weaving. Fall and spring terms.

343 Design: Introductory Textile Printing. Spring term.

344 Intermediate Textile Design: Silk-screen Printing. Fall term.

346 Advanced Textile Design: Silk-screen Printing. Spring term.

349 Graphic Design. Fall and spring terms.

353 Historic Design III: Contemporary Design. Spring term.

360 Design IV: Design Procedures. Fall and spring terms.

361 Residential Design. Fall term.

365 Interior Space Planning I. Spring term.

366 Apparel Design III: Design Approaches. Spring term.

440 Form Study: Clay. Fall and spring term.

445 Apparel Design IV: Experimental Processes. Fall term.

463 Product Design I. Fall term.

464 Product Design II. Spring term.

465 Apparel Design V: Product Development and Presentation. Spring term.

466 Interior Space Planning II. Fall term.

467 Interior Space Planning III. Spring term.

#### *Environmental Analysis Area*

135 Textile Materials. Fall and spring terms.

137 Materials. Spring term.

150 Environmental Analysis: Human and Social Factors. Spring term.

219 Design Methods: Planning Strategies. Fall term.

230 Science for Consumers. Fall term.

235 Textile Materials: Characterization and Evaluation. Fall and spring terms.

250 Environmental Psychology: Perspectives and Methods. Fall term.

319 The Child-Oriented Environment. Fall term.

330 Household Equipment Principles. Spring term.

335 Textile Materials: Fiber Structures and Properties. Spring term.

350 Environmental Analysis: Person, Activity, Space. Fall term.

375 Residential Environments: The Behavioral Basis for Design Decisions. Spring term.

430 The Textile and Apparel Industries. Fall term and intersession.

436 Textile Chemistry. Fall term.

455 Psychology of the Near Environment. Fall term.

520 Instrumental Analysis. Fall term.

530 Physical Science in the Home. Fall term.

535 Textile Materials: Characterization and Evaluation. Spring term.

536 Advanced Textile Chemistry. Spring term.

538 Textiles in the Near Environment. Spring term.

550 Person-Activity-Environment Relationships. Spring term.



- 551 Environmental Awareness. Spring term.  
 555 Social Psychology of the Near Environment. Spring term.

*Design or Environmental Analysis Areas*

- 300 Special Studies for Undergraduates. Fall and spring terms.  
 378 Junior Honors Seminar. Spring term.  
 400 Special Studies for Undergraduates. Fall and spring terms.  
 438 Textiles in Fashion and Function. Fall term.  
 451 History of Costume. Fall term.  
 452 History of Costume. Spring term.  
 479 Honors Research Practicum. Fall and spring terms.  
 500 Special Problems for Graduate Students. Fall and spring terms.  
 599 Master's Thesis and Research. Fall and spring terms.

**044 Workshop in Elementary Clothing Construction.** Fall and spring terms. No credit. S-U grades only. (This S-U grade will not be counted as one of the four courses a student may take for S-U.) Enrollment limited to 16 students per section. Th 7-9 p.m. The first laboratory will be held the second full week of classes. S. Watkins.

A series of laboratories intended to teach the basic sewing skills that are needed to execute design ideas in apparel design courses. Topics include: using the sewing machine; using a commercial pattern; layout and cutting of fabric; sewing darts, seams, and gathers; inserting a zipper; facing a neckline; setting in a sleeve; and hemming. A blouse or shift dress will be constructed. Approximate cost of materials and supplies, \$15.

**110 Design I: Fundamentals of Design.** Fall and spring terms. Credit three hours. Each section limited to 20 students. M W or T Th 1:25-4:25. M. Boyd, A. Bushnell, J. Koncelik, S. Mensch, C. Straight.

A studio course introducing the fundamental vocabulary and principles of design and involving experimentation with the development of form through problem-solving approaches. Average cost of materials, \$25.

**111 Introduction to Design.** Fall term. Credit three hours. Recommended to precede or parallel DEA 110, DEA 115, and DEA 116. Required for majors in DEA, taken preferably in the first year. M W F 12:20. J. Carreiro.

Intended to provide the student in any academic area with a general background in the field of design. The course reviews the spectrum of design activities with an emphasis on the designer's role in a technological society. Differences in philosophical premises among designers, their differing social and functional roles, as well as various movements in the visual arts are investigated. Efforts are made to explore human responses to the man-made environment, particularly as they are affected

by the interaction of people, design, and materials. Lectures and visual material are presented by members of the department and by visiting designers and other professional specialists.

**115 Drawing I.** Fall and spring terms. Credit three hours. Each section limited to 20 students. M W 8-11 a.m., T Th 1:25-4:25, M W or T Th 7-10 p.m. J. Hanna, S. Mensch, M. Rubin.

Drawing I and Drawing II are regarded as one two-semester course. The combined courses are intended to help the student to comprehend visual experience and to provide him with drawing skills for developing and presenting design ideas. The course develops from "soft" to "hard" (freehand to mechanical) techniques. Units of study include sketching from life and from the imagination, perspective, isometry, orthography, and basic drafting. Minimum cost of materials, \$15.

**116 Drawing II.** Fall and spring terms. Credit three hours. Each section limited to 20 students. Prerequisite or parallel: DEA 110 and DEA 115 or permission of the instructor. Fall M W 9:05-12:05; spring T Th 1:25-4:25 or 7-10 p.m. J. Hanna, S. Mensch.

See Drawing I above for description.

**117 Drawing the Clothed Figure.** Fall and spring terms. Credit three hours. S-U grades optional. Enrollment limited to 20 students. Prerequisite: DEA 115 or equivalent. M W 7-10 p.m.

Drawing studies of clothing on the human figure. Intended to improve students' ability to visualize two-dimensionally the interaction of draped fabric with the human form, and to develop aesthetic awareness of clothing as a design medium. Emphasis is on development of techniques and skills in selected media necessary for professional communication of design ideas.

**135 Textile Materials.** Fall and spring terms. Credit three hours. Each laboratory section limited to 20 students. May parallel Chemistry 103-104 or 107-108. Lecture, T Th 11:15, laboratory, T or Th 8-9:55 or M or T 2:30-4:25. An introduction to the basic properties of textile materials, both natural and manmade, with consideration of their consumer uses and economic importance. Behavior of textile materials is observed in relation to environmental conditions that influence aesthetics, comfort, and performance.

**137 Materials.** Spring term. Credit three hours. Limit 16 students. Lecture, M W 10:10, Laboratory, W 8-10 a.m. M. Purchase. Study of materials such as wood, metals, plastics, with consideration of their properties related to the function, design, and fabrication of consumer products in which the materials are used. Laboratory work will emphasize characteristic properties of classes of materials.

**145 Apparel Design I.** Fall and spring terms. Credit four hours. Each laboratory section limited to 25 students. Recommended: DEA 144 or equivalent personal experience. Lecture T Th 10:10; Laboratory T Th 11:15-1:05 or T Th 1:25-3:20.

A study of the fundamental principles and processes of flat pattern design, fitting, and clothing construction. Laboratory experiences include the development of a master pattern for an individual from a basic commercial pattern. Students are expected, as a result of the discovery and understanding of relevant concepts, to relate flat pattern and construction techniques to apparel design problems. Basic sewing skills will not be taught in this course. Students who have relatively little skill in clothing construction should register for DEA 044, preferably the semester before enrolling in DEA 145. Students who have had formal course work in flat pattern design and clothing construction may elect to take an exemption examination by contacting the instructor (E-425 MVR) on the first day of registration each semester. Cost of sewing supplies and materials, approximately \$30 plus fabric for final project.

**150 Environmental Analysis: Human and Social Factors.** Spring term. Credit three hours. M W F 11:15. E. Ostrander.

Introduction to the study of the relations between the physical environment and the behavior of individuals and groups. Perception of space and effects of spatial arrangements on interactions between persons (social geography). Significance of human capabilities and limitations as factors to be considered when designing person-environment systems. Guidelines for analyzing environmental conditions.

**210 Design II: Composition and Color.** Fall and spring terms. Credit three hours. Each section limited to 15 students. Prerequisite: DEA 110. M W or T Th 9:05-12:05. A. Bushnell, C. Straight.

Study of compositional problems generated from the two-dimensional surface. Color and its perceptual properties will be explored as related to visual problems. Emphasis on the development of visual sensitivity, imagination, and problem structuring, utilizing such simple materials as paper, cardboard, wire to produce abstract solutions. Approximate cost of materials, \$25.

**219 Design Methods: Planning Strategies.** Fall term. Credit three hours. Enrollment limited to 20 students. Prerequisites: DEA 111 and DEA 159. Recommended: previous studio design courses. T Th 1:25-4:25. G. Coates.

An examination of the methods, tools, and techniques of the design process; the process of "thinking before acting"; analysis of the situation wherein lies the problem; synthesis of possible solutions; and evaluation of which solution is most acceptable for implementation. Issues to be considered include: creativity and

the design process, decision making (including problems of forecasting, coordinating expert opinions, organizing a group statistical decision, information theory, and game theory), techniques of systems analysis and operations research (optimization), performance prediction (simulation models), information retrieval systems (research), and procedural systems. To provide an individual program of learning, the following learning options will be employed: lectures, field experience, research experience, team teaching, and self-taught student groups. It is intended that the problem context be in the "real world" and that the activities of the group move in the direction of demonstration projects.

**230 Science for Consumers.** Fall term. Credit three hours. S-U grades optional. Limited to 20 students per section. Prerequisite: high school or college chemistry or physics. Lecture, T Th 10:10; Laboratory, W 12:20-2:15, W 2:30-4:25. M. Purchase.

Principles of science applied to household equipment and supplies. Topics include the chemistry of cleaning agents, chemical characteristics of surfaces to be cleaned, electricity in dwellings, heat transfer, control of environmental conditions in dwellings, and mechanics of equipment. This course is particularly valuable to environmental designers and analysts and for students planning to work with consumers including teachers, extension workers, home service personnel, consumer consultants, and social workers.

**235 Textile Materials: Characterization and Evaluation.** Fall and spring terms. Credit three hours. Limited to 16 students. Prerequisites: DEA 135 and either Chemistry 103-104 or Chemistry 107-108. W F 12:20-2:15 plus two unscheduled hours of independent laboratory work weekly. E. Stout.

A series of cooperative class problems involving a wide range of textile products, testing procedures, and laboratory instruments. These problems are used in defining properties important to satisfaction and serviceability in terms of selection, utilization, and care. Laboratory work includes the solving of problems by the application of different testing instruments and the standard and tentative evaluative methods of both the American Society for Testing and Materials and the American Association of Textile Chemists and Colorists. Other experimental methods are developed with and for the class. Minimum requirements for textile end-use performance for apparel and home furnishing fabrics are considered wherever pertinent. Research and consumer methods of analyzing and interpreting data and presenting reports.

**250 Environmental Psychology: Perspectives and Methods.** Fall term. Credit three hours. S-U grades optional. Enrollment limited to 25 students. Prerequisite: DEA 150 or permission of instructor. M W F 10:10. F. Becker.

Course focuses on issues central to study of person-environment relationships, such as the role of experts; values, data, and decision-making; and the uses of evaluation research in the design process. Methods, including systematic field observation and experiment, interviews, and questionnaires, are explored as means of analyzing behavior in physical-social systems. A term project utilizing systematic data collection is required to clarify some of the above issues and to provide some basic research experience. Joint projects with design classes are being developed and encouraged. The class is intended to offer students a more specific and in-depth understanding of person-environment relationships than DEA 150.

**251 Historic Design I:** Furniture and Interior Design. Fall term. Credit three hours. Prerequisite: DEA 110. Recommended sequence: DEA 251, DEA 252, and DEA 353. M W F 8. G. C. Millican.

A study of the patterns of historical development and change in furniture and interiors from man's earliest expressions through the eighteenth century, as they reflect the changing cultural framework of Western civilization, excluding America.

**252 Historic Design II:** Furniture and Interior Design. Spring term. Credit three hours. Prerequisite: DEA 251. Recommended sequence: DEA 251, DEA 252, and DEA 353. M W F 8. G. C. Millican.

A study of the patterns of historical development and change as revealed through American furniture and interiors, 1650-1885. Design forms are considered individually, collectively, and in their overall historical context as they express the efforts, values, and ideals of American civilization.

**261 Fundamentals of Interior Design for Non-majors.** Fall term. Credit three hours. Enrollment limited to 20 students. Prerequisite: DEA 110. (Not to be taken by students specializing in interior design.) T Th 1:25-4:25. G. C. Millican.

A studio course that emphasizes the fundamental principles of design as applied to the planning of residential interiors and coordinated with an understanding of family and individual needs. Studio problems explore choices of materials, space planning, selection and arrangement of furniture, lighting, and color. Illustrated lectures, readings, and introductory drafting and rendering techniques are presented as background information and tools for solving interior design problems. Minimum cost of materials, \$20.

**262 Design III: Form, Structure, and Space.** Fall and spring terms. Credit three hours. Limited to 21 students. Prerequisites: Fall 1972 — DEA 110, DEA 115, DEA 116. Recommended: DEA 137, DEA 210. Fall 1974 — DEA 110, DEA 115, DEA 116, DEA 137. Recommended: DEA 210. T Th 1:25-4:25. J. Hanna, S. Mensch. An exploration of three-dimensional design

emphasizing the use of nonpaper materials and shop equipment in developing design concepts. Through manipulation and application, the course will build on the foundation of materials theory in DEA 137. The course is intended to serve as an introduction to functional problems in interior, housing, furniture, and industrial design. Minimum cost of materials, \$30.

**263 Apparel Design II: Problems in Apparel Design.** Fall term. Credit three hours. Limited to 20 students. Prerequisites: DEA 110, DEA 111, DEA 135, DEA 145. Recommended: DEA 115. T Th 1:25-4:25. C. Johnson.

Studio problems at the intermediate level are designed to involve students in creative experiences that will increase understanding of concepts and principles related to apparel and human needs. Problem solving requires exploration of sources of apparel design ideas, experimentation with materials and techniques, and innovation. In considering interrelationships of such factors as function, materials, and technical processes, the aid of specialists whose knowledge bears on the solution of design problems will be incorporated through lectures, studio critiques, and field trips. Approximate cost of materials, \$20.

**300 Special Studies for Undergraduates.**

Fall and spring terms. Credit and hours to be arranged. Department faculty. For special arrangement of course work necessitated because of nonequivalent training in a previous major or previous institution. Students prepare two copies of a description of the study they wish to undertake. One, signed both by the instructor directing the study and the chairman of the department, must be filed with preregistration materials. The second copy is left with the instructor. Students obtain forms to be used from Academic Services.

**319 The Child-Oriented Environment.** Fall term. Credit three hours. Enrollment limited to 15 students (seminar). Prerequisites: DEA 250, DEA 219, HDFS 115, and permission of the Instructor. M W F 9:05. G. Coates.

An application of user feedback methodologies to the analysis of a broad range of environments designed for children, incorporating both user response techniques and observational techniques. In order to facilitate the goals of providing direct experience in research design and field applications, student-directed research projects will be emphasized. Consequently, lecture time will be kept to a minimum and it is expected that students will operate on an independent studies basis, using faculty (including faculty from other departments) as consultants when needed.

**330 Household Equipment Principles.** Spring term. Credit three hours. S-U grades optional. Prerequisites: either HNF 115 and HNF 146; or DEA 135; or DEA 230. M W 2:30-4:25. M. Purchase.

Principles of operation of appliances for food preparation and preservation, and maintenance of apparel and furnishings. Characteristics of materials used in household equipment. Evaluation of features in relation to the functions they are designed to serve and to their cost. Selection, use, and care of household equipment. Individual problems related to the student's background and interests.

**335 Textile Materials: Fiber Structures and Properties.** Spring term. Credit four hours. Limited to 12 students. Prerequisites: DEA 235; and either Chem. 353 and Chem. 355 or co-registration in Chem. 358. T Th 1:25; Laboratory, M 1:25-4:25. M. V. White.

Fiber structure as it determines fiber properties and thus influences the utility and aesthetic appeal of textile materials. Experimentation to illustrate interrelationships between fiber structure and properties and between fiber properties and behavior of textiles in use.

**342 Design: Weaving.** Fall and spring terms. Credit three hours. Limited to 16 students. Prerequisite: DEA 110. Recommended: DEA 115, DEA 116, DEA 135. Fall: T Th 9-12; spring: M W 9-12.

A studio course encompassing the basics of weaving, the workings of a loom, and the possibilities inherent in the loom's functions. Students investigate pattern analysis, pattern design, large-scale design and its relationship to woven objects, using a variety of fibers, yarns, and other materials. The relationships between color, technique, yarns, and function will be carefully considered in weaving of a number of experimental samples as well as several more involved woven projects. Minimum cost of materials, \$45.

**343 Design: Introductory Textile Printing.** Spring term. Credit three hours. Each section limited to 15 students. Prerequisites: DEA 110 and at least one other studio design course. T Th 9:05-12:05 or 1:25-4:25. E. Rothenberg, C. Straight.

A studio course exploring the print as a design form. Emphasis is on work done with the silk screen, but opportunities are provided for exploring other processes. Minimum cost of materials, \$30.

**344 Intermediate Textile Design: Silk-Screen Printing.** Fall term. Credit three hours. Enrollment limited to 12 students. Prerequisite: DEA 343 or equivalent course in silkscreen and permission of instructor. T Th 9-12. E. Rothenberg.

A studio course emphasizing the development of professional printing skills and techniques. Students will be working on a larger scale and are expected to develop a more individual and sophisticated approach to their designs. Approximate cost of materials, \$40.

**346 Advanced Textile Design: Silk-Screen Printing.** Spring term. Credit variable depending on the amount of work done. Minimum of

three credit hours. Enrollment limited to 12 students. Prerequisite: DEA 344 and/or permission of instructor. T Th 1:30-4:30. E. Rothenberg.

Advanced design problems in textile printing are posed. Emphasis is placed on professional practice in both their solutions and presentations. Approximate cost of materials, \$40.

**349 Graphic Design.** Fall and spring terms. Credit three hours. Enrollment limited to 15 students. Prerequisite: DEA 360 or permission of instructor. T Th 7-10 p.m. M. Boyd.

The fundamentals of lettering, typography, layout, and presentation techniques. Printing processes and the use of photography and illustration are also covered. Consideration is given to graphics in product and interior design applications, and to packaging, exhibit design, and informational systems.

**350 Environmental Analysis: Person, Activity, Space.** Fall term. Credit three hours. Prerequisite: Introductory Psychology. Recommended: DEA 150 and a course in human physiology. T Th 10:10-12:05. R. Steidl.

Study of ways in which the physical aspects of the near environment affect a person's effort and characteristics of activities. Various sources of ergonomic or human-factors data are used. Measures of human costs of work (effort, energy, time, cognitions, preferences) are considered as guides for reducing amount of adaptation to man-made objects and environments. Implications are included for design and organization of products, interior spaces, and activities, and choice of products in the market for efficient, safe, and comfortable human use. Field trips. Planned for students wanting to specialize in product design, interior space planning, activity area planning, management of the near environment, and those aspects of consumer information programs concerned with choice of products in relation to optimal level of effort and selected characteristics of activities.

**353 Historic Design III: Contemporary Design.** Spring term. Credit three hours. Recommended sequence: DEA 251, DEA 252, and DEA 353. Lecture, T 1:25; Th 1:25-3:20. G. C. Millican.

A historical study of the emergence and development of contemporary design, 1885 to present. An examination of the social, economic, technical, and style forces that shape the design forms of the present. Also a critical analysis of selected works of furniture, fabrics, and interiors.

**360 Design IV: Design Procedures.** Fall and spring terms. Credit three hours. Limited to 20 students per section. Prerequisites: DEA 110, DEA 111, DEA 115, DEA 116, DEA 210, DEA 262. M W 8-11. A. Bushnell, J. Hanna.

An introductory study of the fundamental principles and procedures linking the professional design fields. Exposure through problems is given to the interior, industrial, apparel, and



graphic design professions. In each subject area conceptualization skills are reinforced and the designs are realized in final two- or three-dimensional form. The course is intended to provide sufficient foundation for further study in one or all of the design fields. Minimum cost of materials, \$25.

**361 Residential Design.** Fall term. Credit three hours. Prerequisite: DEA 260 or DEA 360. Recommended: DEA 235 and DEA 350. T Th 9:05–12:05. G. C. Millican.

An introduction to residential architectural design. Through the design solution for specific occupant needs, the student is involved with site, orientation, climate, and materials. Drafting room work consists of plans, elevations, perspectives, and studies in the presentation of solutions. Lectures, discussions, and required readings.

**365 Interior Space Planning I.** Spring term. Credit three hours. Limited to 20 students. Prerequisite: DEA 361 or permission of instructor. T Th 9:05–12:05. R. Bartholomew.

The planning of interior architecture with an emphasis on the fundamentals of structure, lighting, circulation requirements, equipment selection, color, and particularly user-need determination.

**366 Apparel Design III: Design Approaches.** Spring term. Credit three hours. Prerequisites: DEA 115, DEA 263. M W 1:25–4:25. C. Johnson.

The course is intended to give the student an understanding of the interrelationships of two techniques for designing apparel: draping and flat pattern. Advanced flat pattern techniques will be studied. Problems will require the student to make judgments regarding the design process, nature of the materials, body structure, and function. If a dress form padded to the student's measurements is desired, it should be made in a two-week noncredit workshop at the beginning of the semester.

**375 Residential Environments: The Behavioral Basis for Design Decisions.** Spring term. Credit three hours. Enrollment limited to 15 students. Prerequisites: either DEA 219, DEA 250, or DEA 319, and CEPP 147 or CEPP 148. In addition to the prerequisites, a background that includes design, social psychology, sociology, or anthropology is considered an advantage but is not required. T Th 1:25–3:20. G. Coates.

The objective of the course is twofold: to become familiar with the major trends in housing research, putting particular emphasis on investigations focusing on user-evaluation of architectural effectiveness; and to explore techniques for translating knowledge of user needs and environmental preferences into an operational architectural vocabulary to serve as a guide for making physical design decisions. Coverage includes a review of the behavioral orientation to environmental design, cultural

differences in perception and cognition, associative and dissociative environments, territoriality in residential environments, site planning and social behavior, community and privacy, family needs, life-style and dwelling unit design, user needs, and design and research methods in environmental design.

**378 Junior Honors Seminar.** Spring term. Credit one hour. Limited to juniors in the departmental Honors program. W 4:40. C. Johnson.

Readings, reports, and discussion of selected topics.

**400–401–402 Special Studies for Undergraduates.** Fall and spring terms. Credit hours to be arranged. Department faculty.

For independent study by an individual student in advanced work not otherwise provided in the department; or for study, on an experimental basis, with a group of students in advanced work not otherwise provided in the department.

Students prepare two copies of a description of the study they wish to undertake. Forms for this purpose are available from the Division of Academic Services. One form, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials, or within the change-of-registration period after registration. The second copy is left with the instructor. In order to ensure review before the close of the preregistration or change-in-registration period, early submission of the special studies form to the department chairman is necessary. Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study.

**400 Directed Readings:** For study that predominantly involves library research and independent reading.

**401 Empirical Research:** For study that predominantly involves data collection and analysis or laboratory or studio projects.

**402 Supervised Fieldwork:** For study that predominantly involves participation in community or classroom settings.

**430 The Textile and Apparel Industries.** Fall term and intersession. Credit three hours. S-U optional. Prerequisites: CEPP 333, DEA 135, or permission of instructor. Hours to be arranged. N. Conklyn.

A critical review of the structure of the textile and apparel industries; trends in production and marketing and factors affecting output, price, and location (for example, the role of unions), and the effects of international trade, trade barriers, integration, and automation. A field experience in the textile regions of the south and/or New York City is planned for January intersession. Students are responsible for field experience expenses, except transportation.

**436 Textile Chemistry.** Fall term. Credit four hours. Prerequisite: DEA 335 or permission of instructor. Lecture, T Th 9:05, laboratory, T Th 10:10-12:05. B. Lewis.

An introduction to the chemistry of the major classes of natural and man-made fibers, including their structure, properties, and reactions. Laboratory work will include a study of the chemical properties and the qualitative and quantitative identification of textile fibers.

**438 Textiles in Fashion and Function.** Fall term. Credit two hours. S-U grades optional. Enrollment limited to seniors majoring in DEA and graduate students. Permission of instructor required before preregistration. M 1:25-3:20. M. V. White.

A critical review of innovation in consumer textiles from standpoints of researcher, designer, producer, retailer, government, and consumer. Consideration of complex interrelationships of pollution control, product safety, and consumer satisfaction. Specifications, labels, and other means of communication among groups and individuals concerned.

**440 Form Study: Clay.** Fall and spring terms. Credit three hours. S-U option. Prerequisite: DEA 210. T Th 8-11, T Th 1:25-4:25. M. Rubin.

An introduction to working with basic plastic forms utilizing the possibilities of clay and various processes of forming clay. Minimum cost of materials, \$25.

**445 Apparel Design IV: Experimental Processes.** Fall term. Credit three hours. Prerequisites: DEA 235, DEA 366. (DEA 235 may be taken parallel to DEA 345.) Recommended: DEA 115. T Th 9:05-12:05. S. Watkins.

A studio course emphasizing the functional aspects of clothing. Laboratory problems are intended to relate three inputs to apparel design: the needs and function of the human body, the structural properties of materials, and flat pattern forms. Information gained by the testing of textiles and pattern designs is applied to the problems of movement, warmth, impact protection in active sports equipment, and other selected topics relating to comfort in clothing.

**451 History of Costume.** Fall term. Credit three hours. Recommended: courses in history of art or in cultural history. M W 2:30-4:25.

A comparative study of dress of selected cultures from ancient times to the end of the fifteenth century, stressing (1) the relationship of social, economic, and political factors affecting dress, and the mores as expressed through dress, and (2) the contribution of ancient cultures to the apparel arts of the Western world. Illustrated lectures, readings, term problems, and direct study of the basic forms of dress as exemplified in the Costume Collection. A two-day trip to New York to study museum collection is arranged when feasible. Students are responsible for field trip expenses.

**452 History of Costume.** Spring term. Credit three hours. Recommended: courses in history of art or in cultural history. M W 2:30-4:25.

A comparative study of dress of selected cultures from the sixteenth century through the first half of the twentieth century. Emphasis is placed on the development of the apparel arts of Western civilization and the factors that brought about change and development. Illustrated lectures, readings, and term problems designed to bring students into direct contact with the Costume Collection and other primary sources such as the Regional History Collection.

**455 Psychology of the Near Environment.** Fall term. Credit three hours. Prerequisites: DEA 150, Psych. 101, and either Psych. 102, HDPS 115, or an equivalent second course. Recommended: a statistics course. M W F 11:15. E. Ostrander.

An exploration of the interaction of human beings and the immediate nonsocial environment. This interaction will be considered in terms of basic psychological processes, including perception, learning, and motivation. Applications of psychological principles will be made to consumer products such as clothing and appliances and the settings in which we live, work, and play.

**463 Product Design I.** Fall term. Credit three hours. Prerequisite: DEA 360. T Th 8-11. J. Hanna, J. Koncelik.

The development and analysis of a series of products for use in either homes or institutional settings. The emphasis of the course is on design related to materials and production methods.

**464 Product Design II.** Spring term. Credit three hours. Prerequisite: DEA 360. Recommended: a course in consumer economics. M W 8-11. J. Hanna, J. Koncelik.

The analysis and development of either a single product or an interrelated series of products chosen by the student with the approval of the instructor. The project should be developed fully from sketch stage to operating prototype.

**465 Apparel Design V: Product Development and Presentation.** Spring term. Credit three hours. Prerequisites: DEA 117, DEA 210, and DEA 366; a course in marketing strongly recommended. T Th 1:25-3:20. A. Grzelak and C. Johnson.

The design problems undertaken will require an advanced level of expertise in the development of products ultimately appropriate for mass production. Ideas will be developed to various stages of completion. Illustrating and displaying the products will be included in the course experiences. Lectures, discussions, field trips. Students are responsible for field trip expenses.

**466 Interior Space Planning II.** Fall term. Credit three hours. Prerequisite: DEA 365 or

permission of instructor. T Th 9:05–12:05. R. Bartholomew.  
Designing of public interior-environments with an emphasis on spatial organization, acoustical control, material specifications, and budget constraints.

**467 Interior Space Planning III.** Spring term. Credit three hours. Prerequisite: DEA 466 or permission of instructor. Hours to be arranged. R. Bartholomew.  
Advanced exploration of a specific complex interior-environment project.

**479 Honors Research Practicum in Design and Environmental Analysis.** Fall and spring terms. Credit two to four hours. Limited to seniors in the department Honors program. Registration by permission of instructor before preregistration. Department faculty.  
An independent literary, laboratory, or field study.

**600 (500) Special Problems for Graduate Students.** Fall and spring terms. Credit and hours to be arranged. For graduate students recommended by their chairmen and approved by the chairman of the department and instructor in charge for independent, advanced work. Department faculty.

**620 (520) Instrumental Analysis.** Fall term. Credit two hours. Prerequisite: organic chemistry. Th 1:25–4:25. B. Lewis.  
An introduction to the theoretical and practical aspects of instrumentation including spectroscopy, chromatography, electrophoresis, and other selected techniques.

**630 (530) Physical Science in the Home.** Fall term. Credit two or three hours. S-U grades optional. Prerequisite: college chemistry. Three credits require attending laboratory. Consult instructor before registering. Lecture, T Th 10:10; laboratory, W 2:30–4:25. M. Purchase.  
Selected principles from mechanics, electricity, heat, sound, and light applied to household equipment. Chemical characteristics of soil, of surfaces to be cleaned, and of supplies used for cleaning and protecting surfaces; the laundry process and supplies. Course presents background information in physical science for professionals working with equipment in teaching, extension, or home service; also information essential to the environmental analyst and the technically informed designer.

**635 (535) Textile Materials: Characterization and Evaluation.** Spring term. Credit three hours. Prerequisite: DEA 235. Recommended: Statistics and DEA 335 or DEA 436. M W 9:05–11 plus two additional unscheduled hours of independent laboratory work weekly. E. Stout.  
Special consideration given to the interrelatedness of the various visual, physical, and chemical aspects of problems involving advanced physical testing of fibers and fabrics. Related to end use, satisfaction, and serviceability of textile materials.

**636 (536) Advanced Textile Chemistry.** Spring term. Credit four hours. Prerequisites: DEA 235 and either DEA 335 or DEA 436. Lecture, T Th 9:05; Laboratory, T Th 10:10–12:05. B. A. Lewis.  
A study of new developments in textile chemistry including new polymers, finishes and dyes, biodegradability and environmental effects on textile materials. Laboratory will include physicochemical instrumentation and techniques.

**638 (538) Textiles in the Near Environment.** Spring term. Credit two hours. S-U grades optional. Prerequisites: DEA 335 and Physics 101–102. Hours to be arranged. Consult the instructor before registering. M. V. White.  
Consideration of environmental agencies influencing the behavior of textile materials. Topics will include the effects of mechanical wear, soiling, heat, radiation, weathering, and aging.

**650 (550) Person-Activity-Environment Relationships.** Spring term. Credit three or four hours. Recommended: DEA 350 and DEA 455. Consult instructor before registering. T Th 12:20. R. Steidl.  
Human requirements, capabilities, and limitations are studied with reference to design and organization of consumer products, interior spaces, and work. Literature concerns ergonomic or human-factors data and the description and measurement of work and other activities. Students plan an independent project to permit further study or application of basic course material to their special interests. The number of credits is determined by the size of this project. Appropriate for students specializing in consumer product design, interior space planning, activity area planning, management of the near environment, and those aspects of consumer information programs concerned with choice of products in relation to optimal level of effort and selected characteristics of activities.

**651 (551) Environmental Awareness.** Spring term. Credit three hours. S-U option. Prerequisites: DEA 150 and either DEA 219, DEA 250, DEA 350, DEA 455, or consent of instructor. M W 9–10:30. F. Becker.  
Designed for upper level and graduate students interested in the study of person-environment relations. The course focuses on the interaction between social science and design, and explores the role of the individual (or group) and science (research) as problem-solving agents within an ecological framework. Because an ecological perspective assumes that all parts are interconnected and interdependent, discussion includes the following topics: for a given problem situation, methods for identifying different perspectives and their points of conflict; the possibilities and limitations of research as a persuasive tool; strategies for conflict resolution and implementation of change. To ground the discussion of these



kinds of issues in experience, a term project dealing with an actual problem-situation is required. Arrangements for joint projects with students in design classes have been made and will be encouraged.

**655 (555) Social Psychology of the Near Environment.** Spring term. Credit three hours. Prerequisites: elementary psychology; and DEA 219 or DEA 250 or DEA 350 or DEA 455; or permission of instructor. M W 1:25-3. E. Ostrander.

The impact of the near environment on our behavior as social animals. The ways our environment facilitates or hinders effective functioning individually or in groups will be considered in terms of social psychological theory. Frameworks will be developed for analyzing our social behavior in varied settings in which we function. Methodological problems will be considered.

**899 (599) Master's Thesis and Research.** Fall and spring terms. Credit and hours to be arranged. S-U grades optional. Registration with permission of the instructor. Graduate faculty.

## Human Development and Family Studies

Henry N. Ricciuti, Chairman; Edward C. Devereux, Graduate Field Representative

The Department of Human Development and Family Studies provides majors with a strong theoretical and substantive background along with practical experience in the study of human behavior and development and of the family as a social system. It also provides opportunities for students to prepare for various career choices within these fields. While some careers need further education at the graduate level (for example, university teaching and research, social work, clinical psychology), for HDFS majors with a bachelor's degree, some job opportunities available are research technicians, mental health assistants, youth counselors. Majors interested in preschool teaching may apply for enrollment in our Nursery-Kindergarten program. *The Department does not offer preparation for elementary teaching.*

The Department recently revised its major for students matriculating in the fall of 1972 and thereafter. It is designed to provide students with an introduction to, the three major areas represented by the department: Personality-Social Development, Cognitive Development, and Family and Society, and includes systematic observation and participation experience in human development. There is a choice of several courses to fulfill the requirements within each of the three substantive areas. Additional electives permit the students to develop a program suiting their particular

interests. HDFS majors work out useful combinations of courses in other areas of the College to meet personal vocational objectives, particularly in nutrition, community service education, and design. Many courses in psychology, education, anthropology, sociology, and biology are of particular interest to students in the department.

The Department is in the process of working out specializations within the major in areas such as adolescence, exceptional children, and family and community. These programs are in various stages of development, making it imperative that students interested in one of the specific areas see a faculty adviser within the department for help with course planning after the freshman year. Specific requirements of the departmental major and information concerning career opportunities are available from the Division of Academic Services.

There are opportunities to observe and work with children from two months old through adolescence in our laboratories and various field settings, including nearby nursery and elementary schools, play groups in homes, and other organized groups in the community. Arrangements may also be made for observing or working with various kinds of families.

The Nursery School-Kindergarten Certification Program offers provisional certification for a limited number of students who enter the program in their sophomore year.

Transfer students with appropriate background may apply for admission in the fall of the junior year. Students in this program are expected to meet the general requirements of the College and to complete the departmental major. In addition they take a series of courses and practica that are specifically designed to meet state requirements and prepare them for careers as nursery school and kindergarten teachers.

The Honors program offered by the department leads to the Bachelor of Science degree with Honors in Human Development and Family Studies. Students may apply for admission to the Honors program in the spring semester of their sophomore year. The program involves participation in a research practicum and Honors seminar in the junior year and completion of an Honors research thesis in the senior year. A more detailed description of the program may be obtained from the Department or the Division of Academic Services.

The Department of Human Development and Family Studies offers a number of graduate programs leading to both master's and doctoral degrees. The principal areas of specialization within the Department are the following: (1) early childhood education, (2) child development, (3) cognitive development, (4) personality and social development, (5) child and family psychopathology, including a special program in pediatric psychology, and (6)

family relationships. Students seeking additional detailed information about the graduate programs in this Department should write to: Graduate Field Representative, Department of Human Development and Family Studies, N. Y. State College of Human Ecology, Cornell University, Ithaca, New York 14850.

- ✓ **111 Observation of Children.** Fall term. Credit three hours. Enrollment limited to 100 students. M W F 12:20. B. Koslowski.

The aim of the course will be to discuss and to have experience with observational techniques. Topics will include both the advantages and shortcomings of observational (as opposed to experimental) data; observations as a source of hypotheses; the difference between description and explanation; the problem of dividing behavior into units; and whether any observation can be atheoretical. Students will have experience recording descriptions of behavior and transforming them into organized observations that will aid in the formulation of general principles of development.

**115 The Development of Human Behavior.** Fall term. Credit three hours. Graduate students are advised to take this course for a letter grade as HDFS 615. M W F 11:15. Bailey Hall. U. Bronfenbrenner.

Provides a systematic analysis of the forces affecting human development from infancy to adulthood. Attention is focused on the interplay of biological factors, interpersonal relationships, social structure, and cultural values in changing behavior and shaping the individual. Special emphasis is given to the social implications of existing knowledge.

**141 Introduction to Expressive Materials.** Spring term. Credit three hours. Enrollment limited to 24 freshmen and sophomore students. T Th 2:30-4:25. W. Brittain.

Designed to explore the means and materials suitable for creative expression for children of different ages, as well as for adults. Students are expected to acquire competence in evaluating and utilizing various media and in understanding the creative process. Experimentation in paint, clay, chalk, crayon, paper, wire, plaster, wood, and other materials.

**162 Marriage, Family, and Kinship.** Spring term. Credit three hours. S-U grades optional. M W F 11:15. N. Tavuchis.

Intended as a basic introduction to the sociological and anthropological approaches to marriage and family patterns. Although contemporary American forms and trends are examined throughout the course, the readings and lectures draw heavily on cross-cultural and historical materials that attempt to place such patterns in broader perspective. Specific areas that will be examined include bisocial foundations, mate selection, sex, internal family processes, disorganization, social change, and future prospects.

✓ **205 Personality and Patterns of Adjustment.**

Fall term. Credit three hours. Prerequisite: HDFS 115, Psych. 101, or Ed. 110. M W F 10:10. A. McIntyre.

Provides an introduction to psychodynamics through the study of models of conflict, anxiety, and adjustment. Focus on adaptive and maladaptive implications of adjustment mechanisms as they are used to resolve growth hurdles from childhood through early adulthood. Compares different theoretical approaches. Examples drawn from case-history material. Term paper project: an analysis of the adjustment mechanisms of a particular character drawn from literature or history. It is recommended that interested students take this course in their sophomore year. Course is not open to graduate students.

- ✓ **212 Early Childhood: Behavior and Learning.** Spring term. Credit four hours. Prerequisite: HDFS 115. Open only to students provisionally accepted for the Nursery-Kinder-garten Certification Program. W 9:05-10:35. M. Priefert.

One and one-half hours of lecture and discussion plus two mornings or afternoons of participation in nursery school or kindergarten and occasional field experiences in the community. The course provides a basic introduction to contemporary influences in early childhood education and includes emphasis on day care and current legislation concerning the young child.

**222 Intellectual Development and Education.**

Spring term. Credit three hours. S-U grades optional. Prerequisite: HDFS 115, Psych. 101, or Educ. 110. M W 1:25-3:15. H. Ginsburg.

This course provides an introduction to the psychology of intellectual development as it applies to children's education. Topics covered are: reading, writing, mathematics, testing, learning, "deprived" children, innovative classrooms.

**230 Participation in Groups of Young Children.**

Fall and Spring terms. Credit three hours. Enrollment limited to 50 students. Prerequisite: HDFS 111 or permission of the instructor. Lecture, T 1:25-3:30, also one morning a week for field work. J. Strout.

Application of the principles of child development and behavior in educational settings. Practical experience in both early and middle childhood.

**300 Special Studies for Undergraduates.**

Fall and spring terms. Credit and hours to be arranged. Department faculty. For special arrangement of course work necessitated because of nonequivalent training in a previous major or previous institution. Students prepare two copies of a description of the study they wish to undertake. One, signed both by the instructor directing the study and the head of the department, must be filed with preregistration materials. The second copy is left with

the instructor. Students obtain form to be used from their counselors.

**302 Family and Community Health.** Fall and spring terms. Credit three hours. Enrollment limited to 60 students. T Th 9:05–11:00. M. Taietz.

Health concepts focused on a broad perspective from world concern to individual and community responsibility for healthful living and prevention of disease. Attention will be given to the substantive knowledge in the following areas: foundations of health science, mental and emotional functioning, clinical alteration of behavior, family health, personal health care, health and disease, health care in America, and world health problems. Laboratory sections will be devoted to the practical application of caring for the physical needs of the infant and preschool child. The American National Red Cross First Aid to the Injured Course is included.

✓ **313 Development of Preschool Methods and Materials.** Fall term. Credit five hours. Open only to students provisionally accepted for the Nursery-Kindergarten Certification Program. Prerequisite: HDFS 212. Th 1:25–3:25. Students are provided with a variety of skills and techniques for facilitating the development of the preschool child. Demonstrations, discussions, and workshop experiences focus on theories of instruction, on diverse methods and materials, and on parent and community involvement. Laboratory work at the nursery and kindergarten levels for two half-days per week is correlated with class experience.

✓ **314 Curriculum Design and Early Education.** Spring term. Credit four hours. Open only to students accepted as permanent members of the Nursery-Kindergarten Certification Program. Prerequisites: HDFS 212, 313. Th 1:25–3:25.

Students design assessment techniques, learning experiences, and a variety of curricula for preschool children. The child development literature is reviewed in this context to derive implications for early education. Based on what is known of development and learning, students are guided to begin creating new types of programs. Laboratory experiences include microteaching situations that focus on particular learning and teaching processes; students then observe their own work with children on videotape.

**317 Adolescent Development in Modern Society.** Fall and spring terms. Credit four hours. Not open to freshmen and first-term sophomores. Enrollment limited to 100. Prerequisite: HDFS 115 or Psych. 101 or equivalent. M 1:25–3:15 and F 1:25, plus a block of three or four hours available for field work each week. E. Macklin.

General introduction to the adolescent phase of human development with concern for the biological, cultural, social, and psychological

influences on adolescent behavior. Special attention will be given to the problems of youth in modern society. Will provide a background in depth for students interested in further study of or work with the adolescent.

**318 Social Policies and the Problems of Youth.** Spring term. Credit four hours. Enrollment limited to 30 students. Prerequisite: HDFS 317 or permission of instructor. T 1:25–3:15 and Th 1:25. D. Roy.

An analysis of the factors that contribute to delinquency, drug abuse, unemployment of young people and the social policies of programs designed to deal with these problems. Particular emphasis will be given to (1) the law and the organization of the juvenile justice system, (2) the policies, practices and performances of the institutions that deal with the problems of young people, (3) the use of theory and research in planning and evaluation, and (4) strategies for implementing programs and policies.

Students will do field research and prepare a report on a selected issue.

**319 Practicum in Working with Adolescents in Trouble.** Spring term. Credit five hours. Enrollment limited to 25 students. Prerequisites: HDFS 317 and permission of instructor; HDFS 318 is strongly recommended. T Th 10:25–12 plus eight hours available each week for fieldwork and related meetings. E. Macklin and D. Roy.

Provides an advanced fieldwork opportunity for students who want experience working with adolescents whose behavior has brought them to the attention of local legal and treatment facilities. Students are expected to attend a series of weekly workshops dealing with the etiology of delinquent behavior, the juvenile justice system, probation work, and theories and methods of treatment. Field placement will be in one of the local agencies that work with young people.

✓ **[321 The Development of Social Behavior.** Spring term. Credit three hours. Enrollment limited to 100 students. Prerequisites: HDFS 115 or Psych. 102. M W F 10:10. J. Condry. Not offered 1973–74.

Man's adaptation to his social environment serves as a focal point of the course. Issues in the development of social behavior are viewed from the perspective of both theory and research. An attempt is made to apply our understanding of social behavior to practical problems in areas such as education, childrearing, and group behavior. Topics likely to be covered include: bases of social behavior in early childhood, the role of peers, the development of aggressive behavior, the development and functioning of attitude and value systems, conformity and deviation, and the function and limits of experimental research in the study of social development.]

✓ **323 Cognitive Processes.** Fall term. Credit

three hours. Prerequisite: HDFS 115 or equivalent. M W F 9:05. G. Suci.  
A survey of theories and problems in the development of selected cognitive processes: attention, perception, mediation processes, and language.

**324 Piaget's Theory of Cognitive Development.** Spring term. Credit three hours. S-U grades optional. Prerequisite: HDFS 115, Psych. 101, or Educ. 110. M W F 12:20. T. Hertz.  
An introduction to the theories and research of Piaget as well as other investigators concerned with the explanation of cognitive development from infancy to adolescence.

**325 Exceptional Children.** Fall term. Credit three hours. Enrollment limited to 60 students. Prerequisites: HDFS 115 or Psych. 101 and a course in personality development, e.g., HDFS 205, HDFS 360, or Psych. 385. There will be two lectures and one discussion group each week. M W F 12:20. C. Baldwin.  
Lectures and readings will deal with the psychological development of children with emotional, physical, and educational handicaps. Symptoms, possible etiologies, and current educational and therapeutic treatments will be considered.

**329 Human Sexuality and Interpersonal Relationships.** Spring term. Credit three hours. Prerequisite: HDFS 115 or Psych. 101 or 102. Priority in enrollment will be granted to health education majors and HDFS majors. Lecture F 2:30-4:20; Section 1, W 2:30-3:20; Section 2, M 2:30; Section 3, W 3:35; and Section 4, M 3:35. Enrollment limited to 80 students with 20 in each section. G. Miller.  
A primary aim of this course is to provide students preparing for teaching in health education with a substantial and appropriate background in the area of human sexuality within a framework of interpersonal relationships. The course has the additional aim of meeting the needs of HDFS majors for greater understanding of the role of human sexuality in child development and family relationships. Material presented in the course will be drawn from the biological, medical, and behavioral disciplines supplemented by a consideration of pertinent social, historical, and ethical factors in human sexuality as they relate to the problems of physical and mental health.

**334 Advanced Participation in Community Groups.** Fall and spring terms. Credit five hours. S-U grades optional. Enrollment limited to 15 students. Prerequisites: HDFS 230 or equivalent. W 2:30-4:25 plus approximately 10 hours a week of field participation. J. Harding.  
In 1973-74 field placements will be in an Ithaca elementary school with an innovative program. Each student will work under the supervision of a classroom teacher. Students will have responsibility for developing projects with groups of children, and for some remedial work with individual children.

**336 Special Problems in Relation to Exceptional Children.** Spring term. Credit three hours. Enrollment limited to 10 students. Prerequisites: HDFS 205, HDFS 230 and HDFS 325. Th 2:30-4:15 plus one morning or one afternoon free for participation with group of exceptional children or an individual child. Permission of the instructor required. C. Baldwin.  
Students will be expected to prepare a case study, library research paper, or research proposal relating to the children with whom they are working.

**342 The Development of Creative Thinking.** Fall term. Credit three hours. Prerequisite: HDFS 115, Psych. 101, or Educ. 110. Not to be taken concurrently with HDFS 141. T Th 8:30-9:55. W. Brittain.  
A study of various theories of creativity and a review of the research on creative behavior. Emphasis is placed on the conditions and antecedents of creative thinking.

**[343 Creative Expression and Child Growth.** Fall term. Credit three hours. No enrollment limit. T Th 8:30-9:55. W. Brittain. Will not be offered 1973-74.

Aimed at an appreciation and understanding of the creative process as seen in art, music, dance, and drama in relation to the development of children. Essentially a lecture course, leaning heavily on selected readings, videotape and other audio-visual materials. Will be a prerequisite for later participation experiences involving children's artistic and expressive activities.]

**350 Case Studies of Intrafamily Interaction.** Spring term. Credit three hours. Enrollment limited to 15 students. Prerequisites: HDFS 115, HDFS 162, and one advanced course in family studies. Th 2:30-4:25 and a half day of field work per week. H. Feldman.

Emphasis will be placed on the understanding of human interactions derived from an intensive view of the lives of others. The influence of personal life experiences with significant others, social setting variables and social support systems will be examined as they influence the interpersonal relationships of family members. The case methods used will be structured and unstructured observations and interviews as a means for understanding the particular person. Cases will be drawn from a variety of sources such as unmarried welfare clients, upper-income families, commune members, happily married couples, divorced couples, and homosexuals. Ethical problems inherent in the case study will be discussed. Implications for changes in the legal system and the delivery of social services will be drawn.

**352 Contemporary Family Forms in the United States.** Fall term. Credit three hours. Enrollment limited to 40 students. T Th 2:35-3:45. H. Feldman.  
Variations in family formation, organization, and functioning will be investigated with an emphasis



✓ 352 cont.

✓ sis on research findings about each of the family types. Family forms will range from the rural extended family to the more contemporary. The functions of each family form will be considered as they are germane to the individual, the family, and to the society. Research findings, when applicable, will be considered.

✓ **355 The Family Through Literature.** Fall term. Credit three hours. Limited to 30 students. Preference given to Human Ecology students. Prerequisites: HDFS 162, Soc. 343, or permission of the instructor. T Th 10:10-11:40. N. Tavuchis.

An exploration of how various philosophers, thinkers, and writers, e.g., Plato, Gandhi, Christ, Dostovsky, Kafka, Durrell, and others have critically encountered and interpreted marriage and the family. Specific attention will be paid to such universal and primordial themes as the marital tie, filial relations, sibling bonds, reproduction, sexuality, children, and disorganization. Students will focus upon a particular thinker, period, or culture in depth.

**358 Theories of the Marital Dyad.** Spring term. Credit three hours. S-U grades optional. W 2:30-4:15. H. Feldman.

Selective theories of the basic disciplines in social psychology, sociology, and psychology will be reviewed and their pertinence to understanding of the marital dyad examined. Students will generate hypotheses about these theories and test one of them either through a library or empirical paper. A notebook-journal will be kept to interrelate the concepts and to suggest practical applications.

✓ **360 Personality Development in Childhood.**

Spring term. Credit three hours. There will be two class groups, limited to 20 students each. Prerequisites: HDFS 115 or Psych. 101, plus one other course in HDFS or Psychology. T 9:05-11:00 or T 1:25-3:30. L. Lee.

This course is structured as an independent discussion course. Students read printed lectures independently and take an open-book exam on the lectures before meeting for discussion in class each week. Study of relevant theoretical approaches and empirical findings regarding the development of the child's personality. The influence of parents and other environmental factors on the child will be examined. Topics to be covered will be attachment, autonomy, identification, moral development, and social behavior.

✓ **362 Family, Society and the Individual.** Fall term. Credit three hours. S-U grades optional.

Prerequisites: HDFS 115, Psych. 101, or Educ. 110 and HDFS 162, Soc. 101 or R.S. 100, or equivalents. M W F 10:10. E. Devereux.

The sociological study of the family, with particular reference to the relationships between the family and society and between the family and its individual members. Special emphasis is placed on the role of the family in child development. Extensive use will be

made of cross-cultural and comparative materials.

**[374 Behavior and Development in Infancy.** Spring term. Credit three hours. Prerequisite: HDFS 115 or equivalent. M W F 10:10-11:15. H. Ricciuti. Not offered 1973-74.

An examination of the nature and determinants of major developmental changes in infant behavior from birth to approximately two years. Special attention will be directed to the role of major environmental influences on perceptual-cognitive and social-emotional development and to recent attempts to modify the infant's experience in the interest of facilitating optimal psychological development. The course will lean heavily on selective readings, laboratory observations, and television tapes of infant behavior.]

**397 Experimental Child Psychology.** Fall term. Credit four hours. Prerequisites: one course in statistics and permission of the instructor. T Th 10:10-11:40 plus additional hours for laboratory work. L. Lee.

Students will carry out empirical research projects with class discussion devoted to techniques and problems arising in the projects. The focus will be on experimental studies of children. Intended primarily for students interested in entering graduate programs involving further research training.

**398 Junior Honors Seminar.** Spring term. Credit three hours. Permission of the departmental Honors committee is required for registration. Enrollment limited to juniors in the Honors program. Hours to be arranged. H. Ginsburg.

The seminar will be devoted to readings, reports, and discussion of selected major issues in human development and family studies.

**400-401-402 Special Studies for Undergraduates.** Fall and spring terms. Credit hours to be arranged. Department faculty.

For independent study by an individual student in advanced work not otherwise provided in the department; or for study, on an experimental basis, with a group of students in advanced work not otherwise provided in the department. Students prepare two copies of a description of the study they wish to undertake. Forms for this purpose are available from the Division of Academic Services. One form, signed by both the instructor directing the study and the head of the department, must be filed with pre-registration materials, or within the change-of-registration period after registration. The second copy is left with the instructor. In order to ensure review before the close of the pre-registration or change-in-registration period, early submission of the special studies form to the department chairman is necessary.

Students, in consultation with their supervisor, should register for one of the following subdivisions of independent study.

**400 Directed Readings:** For study that predominantly involves library research and independent reading.

**401 Empirical Research:** For study that predominantly involves data collection and analysis or laboratory or studio projects.

**402 Supervised Fieldwork:** For study that predominantly involves participation in community or classroom settings.

**405 Theories of Child Development.** Fall term. Credit three hours. Open to seniors and graduate students; open to juniors by permission of the instructor before preregistration. W F 2:30-4:30. J. Harding.

A survey of four major theories of child development and the development of personality. Includes discussion of the major empirical findings on which these theoretical positions are based. Social learning theory, psychoanalytic theory, and the view of Jean Piaget will be studied in detail; the theory of Kurt Lewin will be reviewed more briefly.

✓**415 Internship in Preschool Teaching.** Fall and spring terms. Credit ten hours. To be scheduled concurrently with Professional Seminar (HDFS 416). Open only to students accepted for the Nursery-Kindergarten Certification Program. Prerequisites: HDFS 212, HDFS 313, and HDFS 314. Teaching experience full time for one semester.

Clinical internship under the guidance of University faculty and cooperating centers. Placements at the nursery and kindergarten levels: in public schools, day-care centers, experimental programs, and community schools. To get opportunity to assess approaches to early education, students will intern in two diverse situations, working one-half semester in each.

✓**416 Professional Seminar.** Fall and spring terms. Credit two hours. Open only to students accepted for the Nursery-Kindergarten Certification Program. To be scheduled concurrently with HDFS 415.

Seminar in analysis of comparative approaches to early education, with focus on the diverse programs experienced in the Internship. Programs are looked at in the total contexts of political problems of schools and communities, parent involvement, training and supervision of staff, and administration of educational centers for young children.

**420 Advanced Field Study in Adolescence.** Spring and fall terms. Credit twelve to fifteen hours. Prerequisites: HDFS 319 and permission of the instructor. Number of students limited. E. Macklin and D. Roy.

Intended to serve as the final course in a proposed adolescent field study option. Provides opportunity for a full-time placement at an agency or institution concerned with the welfare of youth. Interested students should contact instructor for more information.

**444 Workshop in Children's Creative Expression.** Spring term. Credit two hours. Enrollment limited to 20 students. Prerequisite: HDFS 343 or permission of the instructor. S 9:00-12:00 plus one additional hour to be arranged. W. Brittain.

Experience in working with children in a workshop for creative expression. Students will be responsible for planning and working with children each Saturday morning throughout the spring semester.

**464 Selected Problems in Emotional and Intellectual Deviations in Children.** Fall term. Credit three hours. Enrollment limited to 14 students. Prerequisites: HDFS 225 or HDFS 325 or equivalent and permission of the instructor. M 1:25-3:15 and additional hours to be arranged. G. Gold.

The course will be a seminar dealing primarily with research strategies and evaluation techniques with exceptional children. Research on selected problems in the etiology, diagnoses, and treatment of emotional behavioral and intellectual disturbances in children will be considered.

✓**465 Innovative Programs of Parent Intervention and Community Action.** Spring term. Credit three hours. Permission of instructor required before preregistration. Enrollment limited to 10 students. T 2:30-4. Additional laboratory and field experience to be individually arranged. H. Bayer.

Consideration of the theoretical bases and the empirical consequences of programs intended to change styles of parental behavior, whether by manipulation of individual action or of societal alternatives: parent education, parent intervention, social action.

**474 Practicum in Understanding Family Day Care.** Fall term. Credit three hours. Enrollment limited to 10 students. Prerequisite: Permission of the instructor. T 12:20-2:15 plus one-half day field work. R. Bookman.

An examination of the increasing importance of family day care in America today. Students will work in a family day care home one-half day a week. Special attention will be placed on student's ability to work with a family day care mother to identify problem areas and provide resources that would help alleviate those problems. Course work will include selected readings, films, role play and student's interpretation of his or her experience in the assigned family day care home.

**499 Senior Honors Thesis.** Fall and spring terms. Credit hours to be arranged. S-U grades only. Registration with permission of thesis adviser. Department faculty.

**600 (500) Special Problems for Graduate Students.** Fall and spring terms. Credit and hours to be arranged. For graduate students recommended by their chairmen and the in-

structor in charge for independent, advanced work. Department faculty.

**608 (508) Seminar on Theories of Intelligence.** Spring term. Credit three hours. Open to all graduate students and selected undergraduates with permission of instructor. T 2:30–4:30. J. Doris.

The seminar will be devoted to the study and discussion of the historical development of various concepts of intelligence and to the theoretical and research literature relevant to those concepts. All students will have some exposure to the original literature of such figures as Galton, Binet, Spearman, Terman, Burt, Thurstone, Guilford, Cattell, and Piaget. Each student will select one theorist to study in depth and will prepare a term paper on the work of that theorist.

**614 (514) Clinical Deviations in Intellectual and Sensory Motor Development.** Spring term. Credit three hours. Th 1:25–4:25. J. Doris. Designed to acquaint students with the clinical and research literature on mental retardation, cerebral palsy, and sensory defects. Attention will be focused upon research problems in the etiology, diagnosis, and treatment of these disorders.

**620 (520) Issues in Developmental Psychology.** Fall term. Credit three hours. Admission by permission of instructor. Hours to be arranged. L. Lee.

This seminar focuses on selected issues related to developmental psychology. The issues selected vary each year according to current importance in the field and student interests.

**621 (521) Seminar in Piaget.** Fall term. Credit three hours. S-U grades optional. Prerequisite: HDFS 324 or equivalent. Limited to 15 students. W 2:30. H. Ginsburg.

**622 (522) Seminar on Cognitive Development.** Spring term. Credit three hours. S-U grades optional. Hours to be arranged. H. Ginsburg. The seminar will focus on a current topic in cognitive development.

The seminar, which is intended for students already familiar with Piaget's theories, focuses on selected topics for intensive examination. The student will review and critically evaluate some aspect of the literature. He will make his report to the seminar and to the students enrolled in HDFS 323.

**[624 (524) Seminar in Freud and Erikson.** Spring term. Credit three hours. Open to seniors and graduate students by permission of the instructor. W 1:25–4. J. Harding. Not offered 1973–74.

The major work of the seminar will be the study of the development of psychoanalytic concepts and theories from 1885 to 1960 by Sigmund Freud, Anna Freud, and Erik Erikson. Each student will prepare and present a paper dealing with the current state of psychoanalytic knowledge on some particular topic.]

**625 (525) Seminar on Symbolic Representation in the Child.** Spring term. Credit three hours. S-U grades optional. Permission of the instructor required. W 2:30–5. T. Hertz.

The seminar is intended for students who have some familiarity with cognitive psychology and intellectual development, and will deal with the nature of thought in the child. It will concentrate on theories and research related to the emergence and development of symbolic abilities. Emphasis will be placed on a comparison of verbal and nonverbal systems of representation and on the role of imagery in learning, memory, and language.

**626 (526) Learning Issues in Development.** Fall term. Credit three hours. S-U grades optional. Permission of instructor required. Hours to be arranged. T. Hertz.

This seminar will involve a review of selected areas of the literature on children's learning. Theoretical and empirical aspects of topics such as infant learning, verbal mediation, discrimination learning, paired-associate learning, and developmental changes in memory will be discussed in length.

**660 (560) Seminar in Psychopathology.** Fall term. Credit three hours. Prerequisites: Graduate student status or permission of the instructor (selected seniors may be admitted as space permits). Th 10:10–12:40. A. McIntyre.

Primary emphasis will be on theory and empirical findings in respect to the psychodynamics of neurotic and psychotic reactions. Focus will be on disorders in children and family units.

**662 (562) The Family, Society, and the Individual.** Fall term. Credit four hours. S-U grades optional. M W F 10:10, plus additional weekly meeting to be arranged. E. Devereux.

Students in this course will attend the lectures and discussions of HDFS 362 and in addition will meet in a weekly seminar session with the instructor to discuss more advanced issues of theory and research and to develop individual term paper projects. Intended to provide a general introduction for graduate students for the uses of sociological theory and research in the study of the family, with particular reference to the relationships between the family and society, and between the family and its individual members. A special emphasis will be placed on the consequences of these relationships for patterns of child rearing and child development. Extensive utilization will be made of cross-cultural and comparative approaches.

**664 (564) Family and Kinship.** Fall term. Credit four hours. Prerequisites: graduate student standing and a course on the family or consent of the instructor. Hours to be arranged. N. Tavuchis.

The seminar will focus on various special topics in the general area of family and kinship, which may vary somewhat from year to year.



**[674 (574) Seminar on Infant Behavior and Development.** Fall term. Credit three hours. Admission by permission of the instructor. Hours to be arranged. H. Ricciuti. Not offered 1973-74.

Will deal with selected topics of current importance as research issues in the field of infant behavior and development. While principal emphasis will be on studies of human infancy, relevant ethological and comparative literature will also be considered. The work of the seminar will be oriented primarily toward formulation of empirical research questions and strategies.]

**680 (580) Seminar on Adolescent Behavior.** Spring term. Credit three hours. S-U grades optional. Permission of instructor required. Hours to be arranged. J. Hill.

The seminar will focus on the development of proposals for research on substantive problems of high priority for dealing more effectively with issues concerning youth in contemporary society.

**[695 (595) A Process Approach to Early Education.** Fall term. Credit three hours. Permission of instructor required. W 10:10-12:10. M. Potts. Not offered 1973-74.

The seminar deals with hierarchies and interrelationships of processes in preschool children. Assessment techniques and learning experiences are designed to facilitate development of cognitive and social processes. Adaptation of a process approach to the total learning environment is explored. Laboratory experiences with children provide opportunity for testing out environments, strategies, and materials developed.]

**709 (609) Seminar on Projective Techniques.** Spring term. Credit three hours. Prerequisite: Graduate student status and permission of the instructor. T 9:15-11:30, plus supervised practicum hours to be arranged. A. McIntyre.

Survey of the use of projective techniques in research and individual assessment. Primary emphasis will be on the Rorschach, the Thematic Apperception Test, and the Children's Apperception Test. For students in the four credit hour option, this course includes extensive supervised experience in administering, scoring, and interpreting projectives with children, adolescents, and young adults. Students in the three credit hour option will focus primarily on projectives as a research instrument and will complete a small scale research project in conjunction with the course.

**711 (611) Evaluation Practicum: Study of the Individual Personality: Deviant and Normal.**

Spring term. Credit three hours. Prerequisites: HDFS 613 and HDFS 560 or equivalent and permission of the instructor. M 10:10-12:05 plus additional hours. G. Gold.

Provides experience in the description and evaluation of the psychological function of

individual children, both deviant and normal, in the context of relevant social and familial factors. Involves selection and utilization of a variety of testing, interviewing, and observational techniques for obtaining most relevant data; evaluation and interpretation of such data in order to arrive at a fuller understanding of the child's behavior, and, in the case of deviant children, to identify and appraise the nature of the clinical problem.

**713 (613) Individual Intelligence Test Procedures.** Fall term. Credit four hours. Admission by permission of the instructor. Th 1:25-4:25. Additional hours for testing and supervision to be arranged. J. Doris.

The primary purpose is to prepare a student for participation in HDFS 611, and it is a prerequisite for that practicum. The student is introduced to the literature on intelligence testing dealing with the construction, reliability, and validity of individual test instruments and with the historical development of the concept of intelligence as this relates to techniques and problems of measurement. Problems of test administration and interpretation in the clinical use of test instruments are emphasized, and the student is required to administer both the Stanford-Binet Test and the Wechsler Intelligence Scale for Children to a number of children.

**[721 (621) Seminar in the Development Study of Social Behavior.** Credit four hours. Time to be arranged. J. Condry. Not offered 1973-74. An in-depth analysis of selected issues in the development of social behavior. Emphasis is placed on experimental research and analysis.]

**[722 (622) The Nature of Subjective Reality.** Fall term. Credit three hours. Prerequisite: HDFS 321 or HDFS 621 or Psych. 102 or permission of the instructor. Hours to be arranged. J. Condry. Not offered 1973-74.

The seminar will focus on how notions about reality develop in the child and are expressed in the adult. Overview of the literature will focus on the developmental epistemology of Piaget and the notions of Helder, Lewin, Asch, and Kelley, with respect to social reality. The intent of the course, after reviewing available literature, will be to concentrate on development of research ideas in this area.]

**723 (623) Seminar in the Development of Language.** Spring term. Credit three hours. Enrollment limited to 15. Admission by permission of the instructor. W 10:10-12:05. G. Suci.

The theories and facts of language development and verbal behavior in childhood will be reviewed.

**762 (662) Seminar: Socialization in Sociological and Ecological Perspective.** Spring term. Credit three hours. Permission of the instructor. Th 10:10-12:40. E. Devereux. This seminar will focus on sociological and

ecological approaches to the study of socialization. It will be concerned with the entire range of elements in family, community, and society that forms the contexts for socialization with their various antecedents and correlates, and with their consequences for socialization processes and outcomes throughout the life cycle. Members of the seminar will participate in a review of some of the relevant theory and research in this domain and then will undertake individual or team research projects in this area.

**899 (599) Master's Thesis and Research.** Fall and spring terms. Credit hours to be arranged. S-U grades only. Registration with permission of thesis adviser. Graduate faculty in the Field of Human Development and Family Studies.

**999 Doctor's Thesis and Research.** Fall and spring terms. Credit hours to be arranged. S-U grades only. Registration with permission of thesis adviser. Graduate faculty in the Field of Human Development and Family Studies.

## Human Nutrition and Food

E. Elizabeth Hester, Chairman; Katherine Newman, Graduate Field Representative; Jerry Rivers, Department Honors Representative

The department's major areas of concern are: (1) human nutrition, with emphasis on the interrelationship of nutrition and health of individuals at various stages of the life cycle and under varying physiological and environmental conditions; (2) food science, encompassing those aspects of selection, treatment in preparation or preservation, and storage conditions that affect the quality, acceptability, and utilization of food for humans; (3) administrative dietetics, with emphasis on the application of knowledge in nutritional science, food science, and management to group feeding and institutional operations.

The problems of undernutrition and overnutrition in our society are of more general concern than ever before, not only in government but also in society at large. Students majoring in this department should be able to make significant contributions toward formulating, implementing, and evaluating food and nutrition programs created to improve the health and well-being of individuals from all age groups and socioeconomic levels.

Many professional opportunities are available to students who major in this department. These opportunities include work in various aspects of food-related concerns of individuals, families, communities, and industry, such as: (1) providing information and help to people who have food or nutrition problems, through Cooperative Extension or other public service agencies; (2) becoming a junior member of a laboratory team to de-

velop or test products, to provide consumer service, or to do research in government agencies, universities, and hospitals; (3) helping to guide the management of food service in various types of group feeding operations; (4) undertaking graduate work in order to qualify for professional positions at a higher level.

Qualifications for dietetic internship programs leading to membership in the American Dietetic Association may be attained by appropriate selection of courses. The major also may be combined with other majors offered in the College; for example, health teaching option in Community Service Education.

The department offers programs leading to the bachelor's, master's, and doctoral degrees. Research or teaching assistantships, United States Public Health Traineeships, and fellowships are available to qualified graduate students.

**Programs for students who wish to major in the department.** The minimum basic program for the undergraduate major is designed to assure instruction in nutritional science and food science, in certain appropriate disciplines from the physical and biological sciences that are basic to food and nutrition, and in those social sciences considered basic to the application of such professional knowledge to problems concerned with food for people. Four specific courses in the department (or their equivalent in other institutions) are required: Human Nutrition and Food 115, 146, 231, and 246. In addition a minimum of nine credit hours must be elected from other offerings in the Department of Human Nutrition and Food. Some choice is possible among the basic sciences required. Details of the requirements for various options may be obtained from the department office or from the Division of Academic Services. Students are advised to consult with a member of the department faculty about options and selection of courses suitable for their particular professional interests. Those with an interest in research, graduate study, administrative dietetics, or field nutrition programs may need more work in the sciences or in department courses than the minimum listed for a major.

**An Honors Program** is offered by the department leading to a Bachelor of Science degree with Honors in Human Nutrition and Food. It is designed for students with a high scholastic standing who desire an opportunity for more independent study in completing the major in Human Nutrition and Food. A description of the program can be obtained from the department office or from the department Honors representative. Students who are interested in this program should discuss their plans during the sophomore year with the department's Honors representative or the department chairman. A written application for admission to the program should be submitted to the Honors representative before registra-

tion for the junior year. Later applications, particularly for transfer students, also will be considered.

**Courses Recommended for Nonmajors.** Human Nutrition and Food 115 (or the equivalent) is prerequisite to all other courses in this department. Human Nutrition and Food 146, 202, 222, or 325A are suitable second-level courses in different aspects of departmental focus. Students with general Chemistry and Biological Science 101-101L also may elect Human Nutrition and Food 231. Graduate students in other fields who desire some basic work in human nutrition are directed to Human Nutrition and Food 515.

**115 Ecology of Human Nutrition and Food.** Fall and spring terms. Credit three hours. S-U grades optional. Concurrent registration in 146 is recommended. M W F 1:25. M. Devine. An introduction to the field of human nutrition and food focused on the mutual relationships between man and his biological and physical environment. Includes study of human nutritional needs; problems encountered in providing food to meet nutritional needs; relationships among man's physiological needs, his social-cultural system, his food, and the significance of these relationships to the attainment of health.

**146 Introductory Foods.** Fall and spring terms. Credit three hours. S-U grades optional. Prerequisite or concurrent registration in HNF 115. Lecture, M 10:10. Laboratories, W F 10:10-12:05, T Th 10:10-12:05 (two sections) or 2:30-4:25. M. Pimentel.

Criteria for evaluating man's practice of the science of food and nutrition. Laboratory includes an introduction to the physiochemical properties of food and the relationship of these properties to preparation techniques and food quality. Some meal preparation, focused on satisfying man's nutritional needs and the management of money and time, is included.

**222 Maternal and Child Nutrition.** Fall and spring terms. Credit three hours. S-U grades optional. Prerequisite: HNF 115. HNF majors electing this course must do so before taking HNF 231. M W F 1:25. K. Newman. Nutritional needs during human growth and reproduction; relationship between nutrition and maternal and child health; meeting the dietary needs of women during the reproductive period; and the needs of infants and children.

**231 Physiological Bases of Human Nutrition.** Spring term. Credit four hours. S-U grades optional. Enrollment limited to 36 for each laboratory section. Prerequisites: HNF 115, Chem. 103-104 or equivalent, and BS 101-101L. Lecture, M W F 9:05; Laboratory, T or Th 2:30-4:25. K. Newman, M. Devine, and other department faculty.

**246 Introduction to Physiochemical Aspects of Food.** Spring term. Credit four hours. S-U

grades optional. Enrollment limited to 34 in double sections. Prerequisites: HNF 146 and a college course in organic chemistry or biochemistry. Lecture, T Th 9:05. Laboratory, T Th 10:10-12:35 (two sections) or M W 2:00-4:25 (two sections). G. Armbruster and E. Hester.

A study of (a) the colligative properties of solutions; (b) colloidal systems—sols, gels, foams, and emulsions; (c) physical and chemical properties of the major groups of foods, the effect of basic methods of food preparation and preservation on these properties, and their relation to food quality (especially color, flavor, and texture). Laboratory experience in comparative cookery provides an introduction to the experimental study of food and illustrates the functions of ingredients and effect of treatment on food quality.

**300 Special Studies for Undergraduates.** Fall and spring terms. Department faculty. Credit and hours to be arranged. For special arrangement of course work necessitated because of nonequivalent training in a previous major or previous institution. Students prepare two copies of a description of the study they wish to undertake. One, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. Students obtain forms to be used from their counselors.

Human nutrition with emphasis on the physiological processes involved in the maintenance of a constant internal environment. Study of specific nutrients and nutrient groups, and their utilization as affected by nutrient-host-environment interrelationships.

**302 Orientation of Field Study in Extension.** Fall term. Credit two hours. S-U grades only. Enrollment limited to 5. Prerequisites HNF 231 and 246 and permission of the instructor. Time to be arranged. R. Klippstein.

An opportunity is offered to a limited number of upperclassmen to work directly with an Extension-Public Service faculty member preparing subject matter for use in field programs. Experiences will include field visits necessary to understand the target audience and the setting of the project. The major focus will be the planning of the project, collection of information, and preparation of the teaching outline and material necessary to initiate a program. Current programs of Cooperative Extension will be chosen for implementation. Materials will be designed and prepared in the fall and the program initiated in the spring under HNF 400-C, Special Studies. Students may select the fall and spring sequence of HNF 302 alone. Enrollment for Special Studies is limited to students who participated in HNF 302.

**325 A Sociocultural Approach to Food and Nutrition.** Spring term. Credit three hours.

S-U grades optional. Prerequisites: HNF 115 and a college course in anthropology or sociology. Spring, M W F 2:30. D. Sanjur.

A study of sociological and cultural variables influencing human behavior in relation to food. Emphasis on recent national and international food habits research, and the implications of this knowledge in designing and implementing effective nutrition action programs.

**368 Organization and Management in Food Service Systems.** Fall term. Credit three hours. S-U grades optional. Prerequisite: HNF 246. T 11:15–1:10 and Th 12:20. H. Ingerson. The functions and techniques of organization and management in dietary departments. Management's function in those operations involved in production, distribution, and service in quantity food services systems including layout and equipment. Field trips. Estimated cost \$5. Elected field trips may be arranged at additional cost.

**378 Quantity Food Cost Control.** Spring term. Credit three hours. S-U grades optional. Prerequisite: HNF 368. T 1:25 and Th 1:25–3:20. H. Ingerson.

A study of the activities of management in the control of food cost in food service systems. Emphasis on purchase, storage, budget, and system of records. Field trips. Estimated cost \$5.

**390 Honors Seminar.** Fall term. Credit one hour. Open only to students admitted to the Human Nutrition and Food Honors program. F 12:20. M. Morrison and department faculty.

**395 Honors in Food and Nutrition.** Spring term. Credit one hour. Open only to students in the Human Nutrition and Food Honors program. Concurrent registration in HNF 325 required. Time to be arranged.

**400–401–402 (400A, 400B, 400C) Special Studies for Undergraduates.** Fall and spring terms. Credit hours to be arranged. Department faculty.

For independent study by an individual student in advanced work not otherwise provided in the department; or for study, on an experimental basis, with a group of students in advanced work not otherwise provided in the department.

Students prepare two copies of a description of the study they wish to undertake. Forms for this purpose are available from the Division of Academic Services. One form, signed by both the instructor directing the study and the head of the department, must be filed with preregistration materials, or within the change-of-registration period after registration. The second copy is left with the instructor. In order to ensure review before the close of the preregistration or change-in-registration period, early submission of the special studies form to the department chairman is necessary. Students, in consultation with their supervisor,

should register for one of the following subdivisions of independent study.

**400 (400A) Directed Readings:** For study that predominantly involves library research and independent reading.

**401 (400B) Empirical Research:** For study that predominantly involves data collection and analysis or laboratory or studio projects.

**402 (400C) Supervised Fieldwork:** For study that predominantly involves participation in community or classroom settings.

**431 Human Nutrition.** Spring term. Credit three hours. S-U grades optional. Prerequisites: HNF 231, BS 431 or equivalent. M W F 12:20. J. Bowering.

The biochemistry of human nutrition will be covered in the context of physiological systems. Emphasis will be on interrelationships among nutrients in metabolism, effect of diet on biochemical and physiological processes, and environmental factors that may alter nutrient requirements.

**441 Nutrition and Disease.** Fall term. Credit three hours. S-U grades optional. Prerequisites: HNF 431 and GSN 570 or BS 410 or BS 414. M W F 12:20. J. Rivers.

Study of the physiological and biochemical anomalies in certain diseases and the principles underlying nutritional therapy. Independent survey of the technical literature in this field.

**444 (445A) Community Nutrition and Health.** Fall term. Credit three hours. S-U grades optional. Prerequisites: HNF 231 and 246; beginning course in sociology recommended. Lecture, W F 11:15. Discussion, M 1:25–4:25 or field trips to be arranged on several Monday or Wednesday afternoons. Students may not receive credit for both 445A and 445B. K. Clancy-Hepburn.

Study of environmental and political dimensions of human nutrition and health problems in contemporary society; application of basic concepts of food and nutrition to the improvement of man's health; and evaluation of federal, state, and community programs focused on improving man's nutrition. Estimated cost of field trips \$5.

**445 (445B) Community Nutrition and Health.** Fall term. Credit three hours. S-U grades optional. Prerequisites: HNF 246 and 431; beginning course in sociology recommended. Lecture, W F 11:15. Discussion W 1:25–4:25 or field trips to be arranged on several Monday or Wednesday afternoons. Students may not receive credit for both 445A and 445B. K. Clancy-Hepburn.

Study of biochemical, environmental, and political dimensions of human nutritional and health problems in contemporary society; application of more advanced concepts of food and nutrition to the improvement of man's health; and evaluation of federal, state, and



community programs focused on improving man's nutrition. Estimated cost of field trips \$5.

**446 (446A) Physiochemical Aspects of Food.**

Fall term. Credit three hours. S-U grades optional. Prerequisite: HNF 246 and a college course in biochemistry which may be taken concurrently. M W F 10:10. E. Hester and G. Armbruster.

The relation to food quality of (a) rheological properties of food systems, (b) oxidation and reduction reactions, (c) enzymatic and non-enzymatic browning. Physical and chemical factors accounting for the color, flavor, and texture of natural and processed foods.

**447 (446B) Physiochemical Aspects of Food, Laboratory.**

Fall term. Credit one hour. S-U grades optional. Enrollment limited to 16. Prerequisite or concurrent: HNF 446A. Laboratory, T 1:25-4:25. G. Armbruster.

Laboratory experiments designed to illustrate the effect of varying ingredients and treatment on the quality characteristics of food products. Objective testing methods are used to determine food quality characteristics.

**448 (446C) Physiochemical Aspects of Food, Laboratory.**

Fall term. Credit one hour. S-U grades optional. Enrollment limited to 16 in each section. Prerequisite or concurrent: HNF 446A. Laboratory, Th 1:25-4:25. G. Armbruster. Laboratory experiments designed to illustrate (a) the physiochemical behavior of colloidal systems; (b) chemical reactions of some food components; (c) effects of temperature, pH, moisture, inorganic salts, and enzymes on physiochemical changes in natural foods, food components, and food mixtures.

**456 Experimental Food Methods.**

Spring term. Credit three hours. Enrollment limited to 16. Prerequisite: HNF 446A. A course in statistics and HNF 446C are desirable but not required. Laboratory, T Th 1:25-4:25. G. Armbruster.

Application of the scientific method in the design and performance of experimental food problems and in the interpretation and evaluation of results. Evaluation of the use of instruments, chemical and sensory methods in the measurement of food properties. Independent laboratory problems.

**478 Volume Food Production.**

Fall term. Credit three hours. S-U grades optional. Prerequisites: HNF 231 and HNF 378 and BS 290A, T 10:10 and Th 10:10-12:05. B. Hopkins. Techniques for processing and production scheduling in quantity food production. Principles of sanitary food handling and holding of ingredients and menu items. Menu evaluation relative to production capacity costs and nutritive value. Field trips. Estimated cost \$5. Elected field trips may be arranged at additional cost.

**488 Volume Food Production Practice.** Fall and spring terms. Credit two hours. S-U grades

optional. Prerequisite or concurrent: HNF 478 and permission of instructor before preregistration. Time to be arranged. Practice assignments in food production requiring approximately five hours. Conference hours to be arranged. Students should reserve one five-hour block of time, preferably 8:00-1:00. Practice experiences will be arranged in one of the food service units on campus, in health care facilities, and other community facilities for students to become familiar with quantity production and food service in an operating situation.

**492 Honors Seminar.**

Spring term. Credit one hour. Open only to students admitted to the Human Nutrition and Food Honors program. Concurrent registration in HNF 431 required. Time to be arranged.

**493 Honors in Nutrition.**

Fall term. Credit one hour. Concurrent registration in HNF 441 required. Open only to students in the Human Nutrition and Food Honors program. Time to be arranged.

**496 Honors in Food.**

Fall term. Credit one hour. Concurrent registration in HNF 446A required. Open only to students in the Human Nutrition and Food Honors program. Time to be arranged.

**499 Senior Honors Problem.**

Fall and spring terms. Credit two to six hours. Open only to seniors in the Human Nutrition and Food Honors program. Hours to be arranged. Department faculty.

An independent literature, laboratory, or field investigation. The work should be spread over two semesters.

**600 (500) Special Problems for Graduate Students.**

Fall and spring terms. Credit and hours to be arranged. For graduate students recommended by their chairmen and approved by the instructor in charge for independent, advanced work. Experience in research laboratories in the department may be arranged. Department faculty.

**601-604 (501-504) Advanced Nutrition Series.**

A series of nutrition courses offered jointly by the Department of Human Nutrition and Food, College of Human Ecology; the Departments of Animal and of Poultry Science, College of Agriculture and Life Sciences; and the Graduate School of Nutrition. Prerequisites: courses in nutrition, physiology, and biochemistry to include intermediary metabolism, or with permission of instructor.

**601 (501) Proteins and Amino Acids.**

Fall term. Credit two hours. Register in Human Nutrition and Food 501. W F 10:10. M. Morrison.

**602 (502) Lipids and Carbohydrates.**

Fall term. Credit two hours. Register in Poultry Science 502. T Th 11:15. A. Bensadoun.

**603 (503) Nutritional Energetics.**

Spring



term. Credit two hours. Register in Animal Science 503. M W 10:10. J. T. Reid.

**604 (504) Minerals and Vitamins.** Spring term. Credit two hours. Register in Poultry Science 504. T Th 11:15. M. Scott.

**606 (506) Carbohydrate Chemistry.** Spring term. Credit two hours. S-U grades optional. Registration with permission of instructor. W F 11:15. B. Lewis.

The chemistry and physiochemical properties of carbohydrates, including sugars, polysaccharides, and their complexes with lipids, proteins, and other food components. The functional role of the carbohydrates in food systems and their nutritional implications will be discussed as well as applications of carbohydrates in food processing.

**610 (510) Special Topics in Nutrition.** Fall term. Credit one hour. Enrollment limited to 15. Registration with permission of instructor. T 1:20 or time may be arranged. K. Clancy-Hepburn.

For Fall 1973 the course deals with readings and discussion of various areas pertinent to community nutrition including ecology, social psychology, and political science. The course may be repeated for credit with permission of the instructor.

**612 (512) Nutrition and Growth.** Fall term. Credit two hours. Prerequisite: HNF 231 or permission of instructor. T Th 9:05. K. Newman.

Aspects of human physical and chemical growth of particular interest to nutritionists. Survey of methodology; comparison of individual growth patterns of selected body dimensions with group patterns; consideration of some of the variables, including diet, that influence growth.

**[614 (514) Readings in Nutrition.** Fall term. Credit three hours. Prerequisite: HNF 431 or permission of instructor. T Th 11:15 and an additional hour to be arranged. Not offered 1973-74.

Critical review of literature on selected topics in the field of nutrition. Emphasis on human nutrition. May be repeated for credit with permission of the instructor.]

**615 (515) Seminar in Ecology of Human Nutrition and Food.** Spring term. Credit three hours. S-U grades optional. M W F 1:25 with an additional discussion period to be arranged. M. Devine.

An introduction to food and nutrition for graduate students who have had limited or no work in this area. The seminar utilizes the lecture and discussion of HNF 115 as a basis for supplementary readings and critical review of research on selected nutritional problems.

**616 (516) Readings in Food.** Fall term. Credit two hours. Prerequisite: HNF 446A or permission of instructor. F 7:30-9:30 p.m. or time may be arranged. N. Mondy.

Critical review of selected topics in the current literature. Emphasis on experimental data and basic scientific principles underlying modern theory and practice relative to food quality. May be repeated for credit with permission of instructor.

**624 (524) Research Methods in Human Metabolic Studies.** Spring term. Credit three hours. Prerequisites: HNF 431 or equivalent, laboratory experience in biochemistry or quantitative analysis, and permission of instructor. Lecture and laboratory, T Th 9:05-12:05. R. Schwartz and department faculty.

Principles of human metabolic research; experimental design of human studies; dietary considerations; methods of collecting and analyzing biological material; and evaluation. Laboratory will include planning and management of a metabolic study, collection and the appropriate analyses of blood, urine, and feces.

**625 (525) Seminar in a Sociocultural Approach to Food and Nutrition.** Spring term. Credit 3 hours. S-U grades optional. Enrollment limited to graduate students. M W F 2:30 and additional discussion to be arranged. D. Sanjur.

The seminar utilizes the lectures of HNF 325 as a basis for critical review of selected topics in the current literature. Emphasis will be given to the development of a research proposal utilizing sociological conceptual frameworks and methods and techniques as applied to nutritional data.

**626 (526A) Special Topics in Food.** Spring term. Credit one hour. F 1:25 or time may be arranged. B. Lewis and G. Armbruster. For Spring 1973 the topic is a study of packaging materials used for food; their mechanical, thermal, and chemical properties; their application for specific food requirements. May be repeated for credit with permission of instructor.

**627 (526B) Special Topics in Food.** Spring term. Credit one hour. Time to be arranged. N. Mondy. For Spring 1974 the topic is enzymes and enzymatic changes in foods. May be repeated for credit with permission of instructor.

**645 (545) Food Supply and Human Nutrition.** Spring term. Credit two hours. S-U grades optional. Time to be arranged. Department faculty.

Compilation of the scientific literature on selected topics dealing with the nutritional implications of changes in man's foods. Evaluation of the literature relative to answering practical questions raised by the lay public and the research needed to answer such questions.

**668 (568) Special Topics in Dietetics.** Fall term. Credit two hours. Registration with permission of instructor. May be repeated for credit with permission of instructor. T 11:15-1:10. B. Hopkins.

For Fall 1973 the topic is dietary management in health care facilities. Field trips. Estimated cost \$10.00.

**[678 (578) Data Processing Applied to Dietary Department Administration.** Fall term. Credit two hours. Prerequisite: HNF 478 or permission of instructor. Th 11:15-1:10. Not offered 1973-74.

Includes an introduction to the fundamental elements and functions of data processing equipment; basic concepts of programming, development of programs for the procurement and issuing of food commodities, the processing of ingredients, and the scheduling of departmental resources as related to automatic data processing.]

**[688 (588) Advanced Layout and Equipment Selection for Dietary Departments.** Spring term. Credit two hours. Prerequisite: HNF 388 or permission of instructor. Th 2:30-4:25. Not offered 1973-74.

Current trends in facilities and systems in

dietary departments with projections for future development. Field trip. Estimated cost \$5.]

**705 (605) Seminar in Human Nutrition and Food.** Fall and spring terms. S-U grades optional. Credit one hour. T 4:30. G. Armbruster and J. Bowering.

**899 (599) Master's Thesis and Research.** Fall and spring terms. Credit and hours to be arranged. S-U grades optional. Enrollment with permission of the instructor. G. Armbruster, J. Bowering, E. Hester, N. Mondy, M. Morrison, K. Newman, J. Rivers, R. Schwartz, and C. Young; M. Devine, D. Roe, D. Sanjur, and K. Visnyei; and M. Latham.

**999 (699) Doctor's Thesis and Research.** Fall and spring terms. Credit and hours to be arranged. S-U grades optional. Enrollment with permission of the instructor. G. Armbruster, J. Bowering, E. Hester, N. Mondy, M. Morrison, K. Newman, J. Rivers, R. Schwartz, and C. Young; M. Devine, D. Roe, and D. Sanjur; and M. Latham.

