

**337. Forest and Shade Tree Entomology**  
Fall. 4(3-2) Three terms of natural science.

Ecological relationships of insect/tree interactions. Taxonomy of insects and recognition of insect injury. Biological, chemical, silvicultural and integrated control methods. Insect collection required (see instructor during prior spring term).

**401. Problems**

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 12 credits. Approval of department.

Advanced individual work on a field or laboratory research problem or a study of published literature on a selected topic.

**410. Apiculture and Pollination**

Spring. 3(2-2)

Biology of the honey bee and some of the wild bees. Relationships between bees and flowering plants. Value of bees in crop pollination. Introduction to management with visits to the University apiary.

**415. Insect Behavior**

Winter of even-numbered years. 3(3-0) ENT 301, ENT 302; ZOL 413 recommended.

Mechanisms and adaptive significance of communication, orientation, food and habitat selection and behavioral rhythmicity in insects.

**418. Systematic Entomology**

Winter. 4(1-9) ENT 301, ENT 302.

General taxonomic course to acquaint the student with the various groups of insects.

**420. Aquatic Insects**

Spring. 4(3-3) ENT 301, ENT 302.

Biology, ecology and systematics of aquatic insects. Insect collection required.

**425. Agricultural Entomology**

Fall. 4(3-2) One year of biological or agricultural sciences.

Natural processes of insect populations and associated techniques that are important to agriculture.

**438. Taxonomy of Immature Insects**

Spring of even-numbered years. 4(1-9) ENT 418.

Identification of immature insects with particular emphasis on the Holometabola.

**440. External Morphology of Insects**

Fall. 4(2-6) ENT 301, ENT 302, or approval of department.

Morphological concepts of external skeletal parts of insects. Emphasis on evolutionary development of structures from the Apterygota through the Pterygota.

**444. Insect Ecology**

Fall of odd-numbered years. 3(3-0) One course in introductory entomology.

Unique characteristics and principles of insect ecology. Trophic relationships, populations, climate, co-existence, competition, behavior, communities and distributions.

**450. Insect Physiology**

Fall of even-numbered years. 5(3-4) ENT 301, ENT 302; 1 biochemistry or physiology course; 1 year of chemistry including 1 term of organic.

General and comparative physiology of insects, treating molecular, tissue and organ function. Laboratory exercises emphasizing mastery of sound experimental procedures.

**455. Toxicology of Insecticides**

Winter of odd-numbered years. 4(4-0) 1 term organic chemistry.

Properties of insecticides. Mode of action, metabolism and movement in animals. Safety and potential hazards to man and wildlife. Fates of insecticides in the environment.

**460. Medical Entomology**

Spring. 4(3-3) ENT 301, ENT 302, or approval of department.

Distribution and biology of important arthropod vectors of diseases to man, disease symptoms, life cycle of the infectious agent, reservoirs, urticating arthropods, anaphylactic reactions, myiasis, and prophylactic measures.

**470. Nematode Diseases of Economic Plants**

Winter. 4(3-3) B S 212 or BOT 205. Interdepartmental with the Department of Botany and Plant Pathology.

Major nematode diseases of economically important plants, with emphasis on diagnostic symptoms, nematode biology and principles of control.

**478. Stream Ecology**

Spring. 3(3-0) ENT 420, ZOL 389 or BOT 450 or F W 302 or approval of department.

Students may not receive credit in both F W 478 and ENT 421. Interdepartmental with the departments of Fisheries and Wildlife and Zoology. Administered by the Department of Fisheries and Wildlife.

Biological, chemical, physical, and geological processes which determine the structure and function of stream ecosystems.

**490. Topics in Entomology**

Fall, Winter, Spring, Summer. Variable credit. Majors or approval of department.

Advanced work in medical entomology, acarology, advanced forest entomology, soil arthropods, behavior and biological control.

**812. Graduate Seminar Topics**

Fall, Winter. 1(1-0) May reenroll if different topic is taken. Graduate students and approval of department.

Graduate level seminars on current research and philosophy. Student participation required.

**815. Biological Control**

Spring of even-numbered years. 3(2-3) Approval of department.

Properties of entomophagous species; relationships to population ecology and systematics; foreign exploration, colonization, manipulation, and evaluation; interactions with pesticides, analysis of successful programs, and future trends. Collection for taxonomic lab to be made the summer before.

**820. Applied Insect Ecology**

Winter of odd-numbered years. 3(2-3) Approval of department.

Ecological factors in an insect's ecosystem that can be manipulated for the purpose of pest management. Critical evaluation of current and classical literature presented by students in both oral and written reports.

**838. Principles of Taxonomy**

Spring of odd-numbered years. 3(3-0) Twenty credits in zoology and/or entomology, or approval of department.

Methods and principles of systematic zoology and entomology, including a historical survey of the pre-Linnaean and post-Linnaean systems of classification. International rules of zoological nomenclature and their emendations.

**871. Biology of Nematodes**

Spring. 4(2-6) ENT 470 or approval of department. Interdepartmental with the Department of Botany and Plant Pathology.

Ontogeny, taxonomy, morphology, pathology and ecology of nematodes, with special reference to plant-parasitic and phytopathogenic species.

**881. Biology of the Arthropoda**

Winter. 5(3-6) ZOL 481 or approval of department. Interdepartmental with and administered by the Department of Zoology.

Ecology, life cycles, morphology, taxonomy, and distribution of arthropods other than insects.

**890. Problems**

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 12 credits. Majors or approval of department.

Advanced individual work in: apiculture, aquatic insects, insect biochemistry, biosystematics, economic insects, insect ecology, forest insects, morphology, nematology, insect physiology, plant disease transmission, insect toxicology, araneida, acarina, medical entomology, chemistry of insecticides, insect biology, extension entomology, systems.

**899. Master's Thesis Research**

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

**940. Analytical Techniques for Biological Compounds I**

Winter of odd-numbered years. 4(2-6) Organic chemistry, approval of department.

Application, extraction, cleanup and purification techniques employed in analysis of biologically active compounds. Stresses use of radioisotopes, and column, paper, thin-layer, and molecular sieve chromatography.

**941. Analytical Techniques for Biological Compounds II**

Winter of even-numbered years. 4(2-6) ENT 940.

Analytical techniques used for identification and quantification of biologically active compounds. Emphasis on spectroscopy and gas-liquid chromatography.

**999. Doctoral Dissertation Research**

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

**FAMILY AND CHILD  
ECOLOGY**

**FCE**

(Name changed effective July 1, 1980. Formerly the departments of Family and Child Sciences, and Family Ecology.)

**College of Human Ecology**

**118. Family Resources**

(F E 118.) Fall. 3(2-2)

Skill development in identification, description and classification of human and non-human family resources on a historical and cross-cultural basis.

**Descriptions – Family and Child Ecology  
of  
Courses**

**145. The Individual, Marriage and the Family**  
(FCS 145.) Fall, Winter, Spring. 4(4-0)  
Students may not receive credit in both FCE 145 and S W 228.

Individual as young adult. Alternative living patterns. Marriage as social institution. Courtship and marriage patterns. Adjustments in marriage. Attitudes and roles in family living. Crises situations. Family planning.

**200. Ecological Approach to Family and Health**  
(F E 200.) Fall, Winter. 2(2-0) Sophomores. Not open to HEC majors.

Use of the human ecosystem perspective to study people and their various environments with focus on family and health support systems.

**221. The Role of the Helping Professions and Organizations in Community Services**  
(IDC 221., UMS 221.) Fall, Winter, Spring. 4(3-3)

Analysis of human and community needs: roles of professionals and volunteers in providing community and human services. Participation in community agency required.

**238. Personal Finance**  
(F E 238.) Fall, Winter, Spring. 3(3-0)  
Strategies, techniques and resources useful in the management of personal finance.

**255. Family and Individual Development: Life Cycle**  
(FCS 255.) Winter, Spring. 3(3-0)  
Three terms of natural science; sophomores.

Overview of family development. Predictable individual developmental changes over the life span. Cognitive, moral, physical, psychological and social aspects. Interface between individual and family development.

**262A. Child Growth and Development: Conception through Early Childhood**  
(FCS 262A.) Fall, Winter, Spring. Summer of odd-numbered years. 3(3-0) Sophomores, PSY 160 or PSY 170 or ED 200; FCE 262B concurrently.

Physical, cognitive, social, and emotional aspects of human growth and development from conception through early childhood.

**262B. Child Growth and Development Laboratory**  
(FCS 262B.) Fall, Winter, Spring. Summer of odd-numbered years. 1(0-3) FCE 262A concurrently or approval of department.  
Observation of human development in infants and young children.

**263. Children, Youth and the Family**  
(FCS 263.) Fall, Winter, Spring. 3(3-0)  
Sophomores; SOC 241 or FCE 145 or FCE 262A; or approval of instructor.

A family systems perspective of middle childhood, adolescence, and youth development is presented, incorporating childhood through launching stages of family development. Interactions of parents, children and socio-cultural factors are analyzed.

**331. Management and Decision Making in the Family**  
(HEC 301.) Fall, Winter, Spring. Summer of even-numbered years. 3(3-0) HEC 201, Juniors.

Integrated nature of management in the family setting from an ecosystem perspective. Values and goals as reflected in decision making about family resources.

**332. Theory and Application of Home Management**  
(F E 332.) Fall, Winter, Spring. 4(2-4)  
Juniors and HEC 301 or concurrently; or approval of department.

Principles of effective home management and their application in a living situation.

**340. Instruction in Human Ecology for Non-Formal Settings**  
(F E 340.) Fall, Winter, Spring. 3(2-2)  
Juniors, HEC 301; Dietetic Majors: HNF 320 or concurrently.

Theory and practice of instruction in Human Ecology with specific application to non-formal environments. For majors in Dietetics and Community Services and other majors in human ecology.

**364A. Interacting with Young Children in Child Development Centers**  
(FCS 364A.) Fall, Winter, Spring. 3(3-0) FCE 262A, FCE 262B each with minimum grade of 2.0; FCE 364B concurrently.

Application of principles of human growth and development to personal interaction with children ages three to six individually and in small groups in schools of early childhood.

**364B. Interacting with Young Children-Laboratory**  
(FCS 364.) Fall, Winter, Spring. 1(0-3)  
FCE 364A or concurrently, FCE 262A, FCE 262B each with a minimum grade of 2.0.

Experience in interaction with children ages two to six years, individually and in groups in a child development center.

**369A. Learning Activities for Early Childhood Programs**  
(FCS 369A.) Fall, Spring. 3(3-0)  
Majors: FCE 262A and FCE 262B, FCE 364A and FCE 364B each with a minimum grade of 2.0; FCE 369B concurrently. Others: approval of department.

Planning learning activities and teaching strategies for children ages 3 to 6 in early childhood education programs.

**369B. Learning Activities for Early Childhood Programs-Laboratory**  
(FCS 369B.) Fall, Spring. 1(0-3) FCE 369A concurrently and approval of department.  
Experience in planning and carrying out learning activities with young children in an early childhood program.

**400H. Honors Work**  
(FCS/FE 400H.) Fall, Winter, Spring, Summer. Variable credit. May reenroll for a maximum of 16 credits. Seniors; approval of department.

**404. Home as a Learning Center**  
Fall. 3(3-0) Seniors or approval of department.  
Learning processes and resource use in home settings. Exploration of linkages between the informal educational system and formal and non-formal systems.

**405. Work and the Family**  
Winter. 3(3-0) Juniors.  
Examines the kinds and interrelationship of decisions made by the family and the paid work force (business/labor) as they relate to interaction between the family and the paid work sphere.

**436. Consumer Economic Problems**  
(F E 436.) Fall, Winter, Spring. Summer of even-numbered years. 3(3-0) EC 200 or EC 201.

Nature of current consumer problems. Sources of information and methods of evaluating information in the search for solutions to problems and for improved consumer protection.

**437. Energy Utilization in the Household**  
(F E 437.) Fall. Summer of even-numbered years. 3(3-0) HEC 301 or approval of department.

Human and fossil fuel energy use at the household level. Issues and policies regarding work accomplishment in the home.

**438. Family Financial Management**  
(F E 438.) Fall, Spring. Summer of odd-numbered years. 4(4-0) EC 200.

Major financial alternatives available to individuals and families throughout the life cycle. Emphasis on planning for goal achievement and coping with financial crises.

**439. Families: Consumer Legislation and Participation**  
Spring. 3(3-0) EC 201, FCE 438.

Public policies and laws affecting families and individuals as consumers. Regulation, protection, and legal resources. Influencing change through participation in consumer policy decisions.

**440. Approaches to the Study of the Family**  
(FCS, FCE 446.) Fall, Winter. Summer of odd-numbered years. 3(3-0) FCE 145 or FCE 263.

The family is studied from several approaches. Case studies, films, literary materials and research studies of living situations are included.

**442. Minority Families in America**  
(FCS 442.) Fall, Winter. 3(3-0) Juniors.

Historical, structural, functional components of minority family systems in white America. Centers on a particular minority family system each term. Life styles, pressures, adaptations, viability and continuity of minority family subculture.

**444. Interpersonal Relationships in the Family**  
(FCS 444.) Fall, Winter, Spring. Summer of even-numbered years. 3(3-0) FCE 145 or FCE 263 or approval of department.

Relationships between and among family members as they are affected by other systems, and by physical, cultural, social-psychological forces within the family eco-system. Contemporary family life issues.

**445. Human Sexuality in the Family**  
(FCS 445.) Fall, Winter, Spring. 3(3-0) Juniors. Credit may not be earned in both FCE 445 and PSY 290.

Personal, interpersonal, societal meanings of human sexuality, utilizing outgoing small peer group interaction. Nonlecture, value clarification approach, integrating reflection on research findings, family, peer and cultural influences.

**450. Selected Topics in Family and Child Ecology**  
(F E 450.) Fall, Winter, Spring. 3(3-0) or 4(4-0) May reenroll for a maximum of 12 credits. Seniors.

Current subjects of concern to professionals working with families and children.

- 461. Individual Child Study**  
(FCS 461.) Fall, Winter. 3(2-2) Majors: FCE 364; others: FCE 262A, PSY 244 or ED 412. An in-depth analysis of development and behavior utilizing regular observation of a young child. Applications of theories of child growth and behavior.
- 464. Problems in Teaching in a Child Development Center**  
(FCS 464B., FCS 464.) Fall, Winter, Spring, Summer. 2(2-0) FCE 464A or FCE 464C or concurrently.  
Analysis of problems in teaching in an early childhood program. Application of child guidance techniques and principles.
- 464A. Practicum in a Child Development Center**  
(FCS 464A.) Fall, Winter, Spring, Summer. 7(0-21) FCE 369A, FCE 369B each with a minimum grade of 2.0; FCE 464 concurrently. Advance application required. Not open to students with credit in FCE 464C.  
A directed practicum in planning, implementing and evaluating the learning environment in a class of young children during an entire term.
- 464C. Practicum in a Child Development Center**  
(FCS 464C.) Fall, Winter, Spring, Summer. 4(0-12) FCE 369A, FCE 369B each with a minimum grade of 2.0; FCE 464 concurrently. Advance application required. Not open to students with credit in FCE 464A.  
A directed practicum in planning, implementing and evaluating the learning environment in a class of young children. For experienced teachers.
- 467. Administration of Child Development Centers**  
(FCS 467.) Spring. 3(3-0) FCE 464A, FCE 464 or concurrently; or approval of department.  
Administrator's role in child development centers. Application of child care philosophy, management and communication skills to operation of early childhood education programs. Federal, state, and local regulations and support services.
- 468. Teacher-Parent Interaction**  
(FCS 468.) Fall, Winter, Spring. 3 credits. Majors: FCE 464A, FCE 464 or concurrently; others: FCE 262A or ED 412.  
Analysis of parent-teacher communication and interaction, parent involvement, and parent education related to early childhood education programs operated by schools, churches, or community agencies. Field experience when feasible.
- 470. Current Issues in Family and Child Ecology**  
(FCS 470.) Winter, Spring. 3(3-0) FCE 464A, or Seniors, or approval of department.  
Analysis of current events, issues; of legislation which has bearing on homes, families and children and children's programs. Implications for professional decisions and actions.
- 479. Adult Development and The Family: Adult Middle Years**  
Winter. 3(3-0) A course in human development or approval of department.  
Adult development and the relationships of middle aged individuals in their personal, family, work, and societal environments.
- 480. Adult Development and the Family: The Aging Years**  
(FCS 480.) Fall, Spring, Summer of odd-numbered years. 4(3-1) Introductory sociology or psychology or a course in human development.  
Social-psychological-biological development and socialization for roles in later years. Generational relationships, societal influences. Case study approaches involving interaction with an adult or family in later years.
- 491. Evaluation of Family Related Programs**  
Spring. 3(3-0) Seniors, FCE 340.  
Design and implementation of models of program evaluation in communities. Application to specific family, child or consumer related programs.
- 494. Family Financial Advising**  
Winter of odd-numbered years. 3(3-0) FCE 444, FCE 438, ACC 201 or ACC 230.  
Financial advising strategies for working with families throughout the life cycle.
- 495. Independent Study**  
(FCS 495.) Fall, Winter, Spring, Summer. 1 to 12 credits. May reenroll for a maximum of 12 credits. Approval of department.  
Study of a selected topic under the guidance of a faculty member.
- 498. Field Study**  
(FCS 498.) Fall, Winter, Spring, Summer. 2(2-8) to 16(2-42) May reenroll for a maximum of 16 credits. Approval of department.  
Preprofessional experience in community, governmental or business sponsored organization related to student's program. Student analysis of learning experiences required.
- 800A. Seminar in Family Ecology**  
(F E 800A.) Fall, Winter, Spring, Summer of even-numbered years. 3(3-0) May reenroll for a maximum of 12 credits. Approval of department.
- 801. Seminar in Family Life**  
(FCS 801A., FCS 801.) Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 12 credits. Approval of department.
- 802. Seminar in Child Development**  
(FCS 801B., FCS 802.) Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 12 credits. Approval of department.
- 804. Human Resource Development in Family**  
(F E 804.) Winter. Summer of odd-numbered years. 3(3-0) EC 200, EC 201; FCE 444.  
Role of family in human capital formation and development. Examination of effect of family environment on quality of human resources. Evaluation of public policy impacts on human resource development.
- 810. Workshop**  
(FCS 810.) Summer. 2 to 10 credits. May reenroll for a maximum of 10 credits. Approval of department.  
Content varies depending on nature of workshop.
- 813. Special Studies in Family Life**  
(FCS 813B., FCS 813.) Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits. Approval of department.
- 819. Theories of Child Development**  
(FCS 862., FCS 819.) Fall. 3(3-0) FCE 262A or child psychology.  
Comparative study of conceptual frameworks utilized in child development.
- 820. Human Development in the Family: Physiological Development**  
(FCS 820.) Fall. 4(4-0) Six credits in child development or approval of department.  
Selected aspects of family members' physiological potential, development, status explored. Family's contributions to members' physiological potential for growth and development and to realization of human potential are seen as fundamental.
- 821. Human Development in the Family: Personality**  
(FCS 821.) Winter. 4(4-0) Six credits in child development or approval of department.  
Influence of child-rearing practices and parent-child relationships on developing human personality. Application of research findings and theoretical approaches to psychological development in the family and family-related situations.
- 822. Human Development in the Family: Socialization**  
(FCS 822.) Spring. 4(4-0) Basic course in sociology; 6 credits in child development or family life or approval of department.  
Influence of family structure and interaction upon socialization from infancy to adulthood. Relationship of family to processes in larger social environment, and influence of these on human social development.
- 823. Curriculum**  
(F E 823.) Summer. 3(3-0) Approval of department.  
Clarification and use of a rationale in curriculum development. Special problems in application.
- 824. Programs in Home and Family Life Education**  
(F E 824.) Winter of odd-numbered years. 3(3-0) Approval of department.  
Develops depth in home and family living courses offered in secondary school programs.
- 825. Methods of Teaching Adults**  
(F E 825.) Spring. 3(3-0) Approval of department.  
Developmental needs of adults and changes in society affecting families as a basis for development of adult programs in homemaking education. Experiences will be provided with programs in progress.
- 826. Leadership in Home Economics Education**  
(F E 826.) Fall of even-numbered years. 3(3-0) Approval of department.  
Inquiry into the process of becoming a change agent in various educational settings related to home economics. Leadership principles, current roles and responsibilities of leaders in home economics, communication techniques and organizational principles.
- 827. Evaluation**  
(F E 827.) Summer. 3(3-0) Approval of department.  
Evaluation procedures and practices for various levels of educational programs in the area of human ecology.

**Descriptions – Family and Child Ecology  
of  
Courses**

- 828. New Developments**  
(F E 822.) Fall of odd-numbered years.  
3(3-0) ED 436.  
Trends in the field of family ecology and the relevance to current social needs.
- 830. Individual Readings**  
(FCS/F E 830.) Fall, Winter, Spring, Summer. Variable credit. Approval of department.
- 831. Values and Family Behavior**  
(F E 831.) Winter. Summer of odd-numbered years. 4(4-0) Approval of department.  
Role and function of values as fundamental to understanding behavior in the family. Cognition and actualization of values. Resolution of value conflicts. Conceptual and methodological approaches to study of values.
- 832. Theories of Management and Decision Making in the Family**  
(F E 832.) Spring. Summer of even-numbered years. 4(4-0) HEC 301.  
Comparative study of conceptual frameworks of family decision-making and management, including social, economic and technical decision domains.
- 835. Family Ecosystems**  
(F E 835.) Fall, Spring. Summer of even-numbered years. 3(3-0) Approval of department.  
Family viewed from an ecosystems perspective. Emphasis placed on energy and communication cycles within the family. Integration of management, family dynamics and developmental concepts.
- 837. Allocation of Family Resources**  
(F E 837.) Spring of even-numbered years. Summer of odd-numbered years. 4(4-0) FCE 437, FCE 438.  
Contributors to and recipients of family resources both human and non-human. Patterned use of resources and the effect of definite factors such as standard of living on those patterns.
- 838. Analysis of Family Income**  
(F E 838.) Spring of odd-numbered years. Summer of even-numbered years. 3(3-0) FCE 438.  
Forms of family income and economic problems relative to the protection of family economic security through insurance and investments, property rights and descent of property, and estate planning.
- 840. Topics in Child Development**  
(FCS 840.) Fall. Variable credit. 3(3-0) May reenroll for a maximum of 6 credits if different topic is taken. A child growth and development course.  
In-depth analysis of a selected topic pertinent to the care and education of young children in child development centers.
- 841. Early Childhood Education: Curricular Approaches**  
(FCS 841.) Spring. 3(3-0) FCE 262A or a child growth and development course.  
Exploration of theoretical background and content of curricular approaches in early childhood programs. Analysis and evaluation of early childhood curricular materials. Experience in designing and sequencing activities for young children.
- 842. Assessment of Development of the Young Child**  
(FCS 842.) Fall. 3(3-0) A child growth and development course.  
Survey of assessment instruments and procedures for children from birth to age seven. Techniques for practitioner or parent to use to assess physical, social, emotional and intellectual development.
- 843. Play and Human Development**  
(FCS 843.) Winter of odd-numbered years. 3(3-0) One course in child development or human development.  
Role of play in human development. Functions of play related to other aspects of development. Analysis of theory related to play behavior.
- 844. Child Development Across Cultures**  
Spring of odd-numbered years. 3(3-0) Approval of department.  
Development of children in cultures throughout the world. Biological, ecological, and social factors influencing behavior of children and their families. Impact of rapid social changes.
- 845. Approaches to Child Rearing**  
Spring. 3(3-0) One course in child development or family development or approval of department.  
Child rearing and parental practices based on various theoretical models.
- 846. Parent Education: Programs and Processes**  
Winter. 3(3-0) FCE 845 or approval of department.  
Materials and approaches to parent education. Application of teaching strategies and evaluation techniques will be made by designing an educational program for parents.
- 850. Aging in the Family**  
(FCS 850.) Fall. 3(3-0) FCE 480 or approval of instructor.  
Provides students with a knowledge and understanding of the literature in aging in the family and develops an appreciation of the interrelationships involved in this multidisciplinary area.
- 851. Death, Dying, and the Family**  
(FCS 831.) Spring. 3(3-0)  
Theoretical frames of reference for viewing death within families and strategies designed to assist them.
- 852. Communication and Family Crisis**  
(FCS 852.) Winter. 3(3-0) Approval of department.  
Dynamics of family communication and adjustment to crisis during the life cycle. Delineation of major types of family crises and their consequences. Strategies for positive communication and resolution.
- 853. Developing Family Competencies**  
Fall. 3(3-0) FCE 444 or approval of department.  
Identification, clarification and application of concepts, principles, processes and interactive skills effective in maintaining and enhancing the quality of family relationships. Focus is on developing family strengths.
- 854. Research Literature in Family Relationships**  
(FCS 854.) Winter. 4(4-0) FCE 444, FCE 446 and basic research methods course or approval of department.  
Historical overview and current developments in research in family relationships, with emphasis on theoretical basis and critical issues.
- 855. Topics in Family Relationships**  
(FCS 855.) Fall. 2 to 4 credits. FCE 444 or FCE 445 or approval of department.  
In-depth analysis of a topic related to the American family as an interactive system within the larger society.
- 865. Community Systems for Community Development**  
(F E 814, F E 865.) Winter. 4(3-2) R D 864 or approval of department. Interdepartmental with and administered by the Department of Resource Development.  
Basic systems of the community, their functions and interrelatedness; the family, economic, government, education, and supportive service systems. Field trips required.
- 866. Community Development Field Study**  
(F E 816, F E 866.) Spring. 4(2-4) R D 865 or approval of department. Interdepartmental and jointly administered with the Department of Resource Development.  
On-site study of major community systems. Individual or group investigation of community efforts, problems, and opportunities. Field project required.
- 891. Research Methods**  
(F E 819, FCE 895.) Fall, Spring. Summer of even-numbered years. 3(3-0) Approval of department. Interdepartmental and jointly administered with the Department of Human Environment and Design.  
Elements of the research process; problem formation, theoretical frameworks, operationalizing concepts, hypotheses formulation, research design, instrumentation, sampling, analysis, interpretation, and reporting of findings.
- 894. Field Techniques in Family Study**  
Spring. 3(3-0) FCE 835, FCE 891 or approval of instructor.  
Practical experience in problem selection, data collection in a natural family setting, and analysis and presentation of data in research journal format. Field experience with a family required.
- 897. Independent Study in Family Ecology**  
(F E 843.) Fall, Winter, Spring, Summer. 1 to 5 credits. May reenroll for a maximum of 9 credits. Approval of department.  
Study on an individual or group basis.
- 898. Laboratory and Field Experience**  
(F E 842.) Fall, Spring. 4 credits. Approval of department.  
Supervised graduate practicums, observation, internships, and externships.
- 899. Master's Thesis Research**  
(FCS/F E 899.) Fall, Winter, Spring, Summer. Variable credit. Approval of department.

- 901. Internship**  
(F E 901.) Fall, Winter, Spring, Summer. 1 to 5 credits. May reenroll for a maximum of 9 credits. Approval of department.  
Supervised advanced graduate practicums, observation, internships, and externships in the various areas of emphasis.
- 902. Independent Study in Family Ecology**  
(F E 902.) Fall, Winter, Spring, Summer. 1 to 5 credits. May reenroll for a maximum of 9 credits. Approval of department.  
Study on an individual basis.
- 903. Seminars in Family Ecology**  
(F E 903.) Spring, Summer. 2 or 3 credits. May reenroll for a maximum of 9 credits. Approval of department.  
Seminars in selected topics.

- 932. History and Philosophy of Human Ecology**  
(F E 932.) Fall. Summer of even-numbered years. 3(2-0)  
History and development of human ecology as an interdisciplinary field of study. Values underlying the field. Current emphasis.

- 999. Doctoral Dissertation Research**  
(F E 999.) Fall, Winter, Spring, Summer. Variable credit. Approval of department.

**FAMILY MEDICINE F M**

**College of Osteopathic Medicine**

- 515. Health Care in Underserved Areas**  
Fall. 2 or 3 credits. Admission to a college of medicine or approval of department. Interdepartmental with and administered by the Department of Family Practice.  
Professional, economic, and personal issues confronting the practicing physician in medically underserved areas.
- 590. Special Problems in Family Medicine**  
Fall, Winter, Spring, Summer. 1 to 8 credits. May reenroll for a maximum of 32 credits. Approval of department.  
Each student will work under direction of a faculty member on an experimental, theoretical or applied problem.
- 600. Clinical Practicum in Family Medicine**  
Fall, Winter, Spring, Summer. 2 to 12 credits. May reenroll for a maximum of 24 credits. Grade P in all courses offered in terms 1 through 8 or approval of department.  
Opportunity for direct involvement and experience in functioning family practice. Emphasizes patient, office, and personnel management. Provides understanding and consideration of responsibilities encountered in the practice of family medicine.
- 620. Directed Studies**  
Fall, Winter, Spring, Summer. 2 to 24 credits. May reenroll for a maximum of 48 credits. Admission to a college of medicine or approval of department.  
Individual or group projects on special problems related to family medicine.

- 652. Principles of Family Practice III**  
Fall, Summer. 1(0-4) F M 632 or approval of department.  
Continuation of F M 642.
- 662. Principles of Family Practice IV**  
Fall, Winter. 1(0-4) F M 632 or approval of department.  
Continuation of F M 652.
- 672. Principles of Family Practice V**  
Winter, Spring. 1(0-4) F M 632 or approval of department.  
Continuation of F M 662.
- 682. Principles of Family Practice VI**  
Spring, Summer. 1(0-4) F M 632 or approval of department.  
Continuation of F M 672.

**FAMILY PRACTICE FMP**

**College of Human Medicine**

- 500. Preceptorship Training**  
Fall, Winter, Spring, Summer. 3 to 12 credits. May reenroll for a maximum of 36 credits. No more than 3 credits toward degree requirements. One year of medical school. Interdepartmental with and administered by the Department of Human Medicine.  
Field experience in primary care taught by primary care physicians throughout the state to medical students from Michigan State University, University of Michigan and Wayne State University.
- 515. Health Care in Underserved Areas**  
Fall. 2 or 3 credits. Admission to a college of medicine or approval of department. Interdepartmental with the Department of Family Medicine.  
Professional, economic, and personal issues confronting the practicing physician in medically underserved areas.
- 530. Care of the Elderly**  
Fall, Spring. 3(2-2) Student in II M, OST or other clinical program or approval of instructor. Interdepartmental with the Department of Community Health Science.  
Case studies of the care of the elderly based on the physician patient-interaction with elderly persons and their families. Family systems applications to health care. Associated clinical experience.
- 540. Families in Crisis: A Clinical View**  
Winter, Spring. 1 to 4 credits. May reenroll for a maximum of 4 credits. Student in medicine, nursing, or graduate student in psychology, counseling, social work or related field.  
Dynamics of family crises as might be experienced in health care settings. Videotapes, readings and small group discussions to illustrate family dynamics.
- 580. Special Topics in Family Practice**  
Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 18 credits. Approval of department.  
Explore and study special aspects and modes of family-oriented health care.

- 607. Ambulatory Care Clerkship**  
Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 9 credits. H M 602. Interdepartmental with the departments of Community Health Science, Medicine, and Pediatrics and Human Development.  
Outpatient experience, lasting an equivalent of 48 half days over a period of six months or more, emphasizing continuous and comprehensive patient care under the supervision of appropriate physicians.
- 610. Family Practice Clerkship**  
Fall, Winter, Spring, Summer. 8 to 17 credits. May reenroll for a maximum of 34 credits. H M 602.  
A clerkship in a model family practice unit with graded responsibility and supervision in the care of families and their medical problems with emphasis on primary, continuing and comprehensive care.

- 611. Introduction to Office Practice**  
Fall, Winter, Spring, Summer. 5 to 6 credits. H M 602.  
A one month preceptorial exposure to the office practice of family practice in a variety of settings.

- 612. Inpatient Clerkship in Family Practice**  
Fall, Winter, Spring, Summer. 4 to 6 credits. H M 602.  
Demonstration of the role of the family physician in the hospital setting, including management of consultations and referrals.

**FINANCE AND INSURANCE F I**

(Name changed September 1, 1981. Formerly the Department of Accounting and Financial Administration.)

**College of Business**

- 350. Principles of Risk and Insurance**  
(AFA 350.) Fall, Winter, Spring, Summer. 4(4-0) Juniors or approval of department.  
Risk and risk meeting methods with emphasis on the insurance mechanism. Fundamental principles, legal relationships, types of carriers and organization; principal types of coverage and industry regulation.
- 391. Financial Management**  
(AFA 391.) Fall, Winter, Spring, Summer. 5(5-0) ACC 202, Juniors.  
Basic principles and theoretical framework leading to sound financial management decisions. Role of the financial manager in achieving optimal financial position of the firm. Management of a firm's assets and financing needs.
- 392. Investment Planning**  
(AFA 392.) Fall, Winter, Summer. 4(4-0) F I 391.  
Analysis of the various financial assets from which the individual or institution selects. Emphasis is on the analytical techniques and principles involved in the evaluation of financial instruments such as common stocks, bonds, preferred stock, and warrants. The role of particular types of securities in the portfolio management and investment planning process is examined and related to the current environment.