Descriptions — Entomology of Courses

870. Plant Nematology  
Spring of odd-numbered years. 3(2-3) Interdepartmental with Botany and Plant Pathology.  
P: BOT 405.  
Principles of biological processes applied to wastewater treatment.  
P: ENE 894.  
Principles of biological processes applied to wastewater treatment.  
R: Open only to Environmental Engineering majors.  
Solution of environmental engineering problems not related to student's thesis.  
R: Open only to Environmental Engineering majors.  
Laboratory work in environmental analytical chemistry.  
R: Open only to Ph.D. students in Entomology.  

890. Independent Study  
Fall, Spring, Summer. 1 to 3 credits.  
A student may earn a maximum of 8 credits in all enrollments for this course.  
R: Open only to graduate students.  
Individual study on a field or laboratory research topic or review of published literature on a topic of interest.  
R: Open only to Environmental Engineering majors.  
Selected topics in environmental engineering.  
R: Open only to Environmental Engineering majors.  
Ph.D. students in Entomology.  

899. Doctoral Dissertation Research  
Fall, Spring, Summer. 1 to 12 credits.  
A student may earn a maximum of 24 credits in all enrollments for this course.  
R: Open only to masters students in Entomology.  

910. Analytical Techniques for Bioactive Compounds: Separation  
Spring of odd-numbered years. 4(2-6)  
Extraction and chromatographic separations of compounds from environmental matrices.  

911. Analytical Techniques for Bioactive Compounds: Confirmation  
Spring of even-numbered years. 4(2-6)  
Instrumental confirmation of compounds from environmental matrices.  

999. Doctoral Dissertation Research  
Fall, Spring, Summer. 1 to 12 credits.  
A student may earn a maximum of 99 credits in all enrollments for this course.  
R: Open only to Ph.D. students in Entomology.  

ENVIRONMENTAL ENGINEERING  
ENF  
Department of Civil and Environmental Engineering  
College of Engineering

800. Environmental Engineering Seminar  
Fall, Spring. 3(1-3)  
R: Open only to Environmental Engineering majors.  
Current research in environmental engineering.  

801. Dynamics of Environmental Systems  
Spring. 3(3-0)  
Principles of mass balance, reaction kinetics, mass transfer, reactor theory in environmental engineering.  

802. Physical and chemical principles of air and water pollution control and environmental contaminants in water and air and soils.  

803. Physical and chemical principles of air and water pollution control and environmental contaminants in water, soil, and air.  

804. Physical and chemical principles of air and water pollution control and environmental contaminants in water, soil, and air.  

805. Physical and chemical principles of air and water pollution control and environmental contaminants in water, soil, and air.  

806. Physical and chemical principles of air and water pollution control and environmental contaminants in water, soil, and air.  

807. Environmental Analytical Chemistry  
Fall. 3(3-0)  
R: Open only to Environmental Engineering majors.  
Techniques for measurement and analysis in environmental engineering.  
Sample preparation, quality assurance.  

808. Environmental Analytical Chemistry Laboratory  
Spring. 1(0-3)  
P: ENE 897.  
R: Open only to Environmental Engineering majors.  

899. Master's Thesis Research  
Fall, Spring, Summer. 1 to 12 credits.  
A student may earn a maximum of 9 credits in all enrollments for this course.  
R: Not open to seniors except in the Department of Family and Child Ecology.  
Human services from an ecological perspective. Relationships between human resource professionals and family systems.  

200. Interaction Processes with Children in Groups  
Fall, Spring. 3(3-0)  
P: ECE 211.  
R: Open only to juniors and seniors in the Department of Family and Child Ecology.  
Principles of verbal and non-verbal interaction in relation to children's behavior in groups. Focus on young children in early childhood programs.  

201. Interaction with Children-Laboratory  
Fall, Spring. 1(0-3)  
P: ECE 211.  
R: Open only to juniors and seniors in the Department of Family and Child Ecology.  
Practice applying principles of interaction to individuals and small groups in early childhood programs.  

202. Curricular for Early Childhood Programs  
Fall, Spring. 3(3-0)  
P: ECE 220, ECE 220L, R: Open only to juniors and seniors in the Department of Family and Child Ecology.  
Completion of Tier I writing requirement.  
Child development principles and accreditation standards for designing curricula for early childhood programs. Planning and evaluating learning activities and programs.  

203. Curriculum for Early Childhood Programs Laboratory  
Fall, Spring. 1(0-3)  
P: ECE 220, ECE 220L, ECE 321 or concurrently.  
R: Open only to juniors and seniors in the Department of Family and Child Ecology.  
Supervised practice in providing learning activities for individual children and small groups. Planning, implementing and evaluating activities.  

204. Management and Decision Making in the Family  
Fall. 3(3-0)  
P: Not open to freshmen and sophomores.  
Completion of Tier I writing requirement.  
Management for the realization of values and goals through decision making about resources in the family.  

A-66
443. Adoption of Family and Child Ecology — Descriptions of Courses

492. Internship
Fall, Spring, Summer. 3 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
R: P: FCE 492. R: Open only to seniors in the Department of Family and Child Ecology. Completion of Tier I writing requirement. Approval of department. Professional experience in a community organization.

493. Family Ecosystems
Fall, Spring, 3(0-0)
Family viewed from ecosystems perspective. Assessment tools used to analyze family systems.

494. Theories of Human Development
Fall, 3(0-0)
Major theories of development; research findings and the validity of theoretical positions.

495. Child Development: Ecological Perspectives
Fall of even-numbered years, 3(0-0)
Ecological factors that influence family functioning and child outcomes.

496. Adolescence in the Family: Ecological Perspectives
Spring of even-numbered years, 3(0-0)
Ecological factors that influence family functioning and adolescent outcomes.

497. Adulthood and Aging in the Family: Ecological Perspectives
Fall of odd-numbered years, 3(0-0)
Adulthood development and aging in the contexts of family and community. Family relationships in adulthood and aging.

498. Parenthood and Parent Education
Spring of odd-numbered years, 3(0-0)
Influence of parents on children/youth and factors that influence parenting; approaches to providing education and support for parents.

499. Early Childhood Education: Curricular Approaches
Spring, 3(0-0)
P: FCE 819.
Theoretical background, content, and evaluation of early childhood curricula and programs. Influence of research and public policy.

500. Assessment of the Young Child
Fall of even-numbered years, 3(0-0)
Assessment instruments and procedures for children from birth to age seven. Techniques for assessing physical, social, emotional, and cognitive development of young children.

501. Infant Programs and Practices
Spring of odd-numbered years, 3(2-3)
P: FCE 810 or PSY 845.
Concepts of early childhood education applied to children from birth to age three. Evaluation of research, learning materials, and activities for infants at home and in small group settings. Field work required.

502. Survey of Marriage and Family Therapy Theories
Fall, 3(0-0)
Contemporary ecosystem theories of marriage and family therapy.

503. Treatment Processes in Marriage and Family Therapy
Spring, 3(0-0)
P: FCE 839. R: Open only to Marriage and Family Therapy majors. Case management and treatment processes for problems affecting system change and family functioning.
840. Independent Study
Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
Individual study of selected topics with faculty guidance.

841. Topics in Family and Child Ecology (MTC)
Fall, Spring. 2 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
Family science, early childhood development, problems in programs, or services for families.

842. Seminar in Family and Child Ecology
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
Selected context in family relationships, family economics, human development in the family, community services, or programs for children and families.

843. Laboratory and Field Experience
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
R: Open only to graduate students in the Department of Family and Child Ecology.
Supervised observation, practice, or internships.

844. Master's Thesis Research
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students in the Department of Family and Child Ecology.

845. Advanced Marriage and Family Therapy Theories
Spring of odd-numbered years. 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course.
P: FCE 850.
Selected theoretical perspectives in marriage and family therapy and related therapy techniques.

846. Family Ecology Theory Construction
Fall of odd-numbered years. 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course.
P: FCE 850; PCE 810; PCE 830 or FCE 847 or PCE 850.
R: Open only to doctoral students.
Integration and application of concepts in constructing family ecology theory: Theory development strategies.

847. Advanced Research Methods (MTC)
Fall, Spring, Summer. 1 to 2 credits. A student may earn a maximum of 2 credits in all enrollments for this course.
P: FCE 850; FCE 880. R: Open only to doctoral students.
Research design, measurement and implementation.

848. Topics in Family and Child Ecology (MTC)
Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students. Approval of department.
Supervised practicum, or internship.

999. Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 50 credits in all enrollments for this course.
R: Open only to majors in Family Ecology.

FAMILY MEDICINE
FM

Department of Family Medicine
College of Osteopathic Medicine

515. Health Care in Underserved Areas
Fall of odd-numbered years. 2 to 3 credits.
Interdepartmental with Family Practice, Administrated by Family Practice.
R: Graduate professional students in colleges of Human and Osteopathic Medicine.

516. Migrant Worker Health Care
Fall, Spring. 1 to 2 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
Interdepartmental with Family Practice, Administrated by Family Practice.
R: Open only to graduate-professional students in colleges of Human and Osteopathic Medicine.

517. Introduction to Sports Medicine
Fall. 2(2-0) Interdepartmental with Family Practice, Administrated by Family Practice.
R: Graduate-professional students in colleges of Human and Osteopathic Medicine.

518. Special Problems in Family Medicine
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 48 credits in all enrollments for this course.
R: Open only to graduate-professional students in the colleges of Osteopathic and Human Medicine. Approval of department.
Each student works under faculty direction on an experimental, theoretical, or applied problem.

519. Clinical Practicum in Family Medicine
Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Direct involvement in a family practice emphasizing patient, office, and personnel management.

620. Directed Studies
Fall, Spring, Summer. 1 to 30 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the colleges of Osteopathic Medicine and Human Medicine upon completion of Units I and II.
Individual or group projects on special problems related to family medicine.