

**Descriptions —Entomology  
of  
Courses**

**899. Master's Thesis 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.

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

**941. 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**

**ENE**

**Department of Civil and  
Environmental Engineering  
College of Engineering**

**800. Environmental Engineering Seminar**  
Fall, Spring. 1(1-0)  
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. Physicochemical Processes in Environmental Engineering**  
Fall. 3(3-0)  
P: ENE 801.  
Physical and chemical principles of air and water pollution control and environmental contaminants in water, air and soils.

**804. Biological Processes in Environmental Engineering**  
Fall. 3(3-0)  
P: ENE 801 or concurrently.  
Engineering of microbial processes used in wastewater treatment, in-situ bioreclamation, and solid waste stabilization.

**806. Laboratory Feasibility Studies for Environmental Remediation**  
Spring. 3(2-4)  
P: ENE 802, ENE 804 R: Open only to graduate students in Environmental Engineering, Environmental Engineering-Environmental Toxicology, and Environmental Engineering-Urban Studies. Not open to students with credit in ENE 803 or ENE 805.  
Analysis and characterization of contaminants in soil or water. Conceptual and preliminary design of treatment systems. Use of treatability studies to evaluate treatment options. Oral presentations and preparation of consulting reports with design recommendations.

**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 credit.  
P: ENE 807. R: Open only to Environmental Engineering majors.  
Laboratory work in environmental analytical chemistry.

**880. Independent Study in Environmental Engineering**  
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.  
R: Open only to Environmental Engineering majors.  
Solution of environmental engineering problems not related to student's thesis.

**890. Selected Topics in Environmental Engineering**  
Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.  
R: Open only to Environmental Engineering majors.  
Selected topics in new or developing areas of environmental engineering.

**899. Master's Thesis Research**  
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 24 credits in all enrollments for this course.

**999. Doctoral Dissertation Research**  
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 72 credits in all enrollments for this course.

**FAMILY AND CHILD  
ECOLOGY**

**FCE**

**Department of Family and Child  
Ecology  
College of Human Ecology**

**145. The Individual, Marriage and the Family**  
Fall, Spring. 3(3-0)  
R: Open only to freshmen and sophomores.  
Development of the young adult in the human ecological context. Issues of sexuality, gener, parenting, work and family interface, communication and resource use. Diversity in relationships and families.

**211. Child Growth and Development: Conception Through Early Childhood**  
Fall, Spring. 3(3-0)  
R: Not open to freshmen.  
Physical, cognitive, social, emotional and ecological aspects of human growth and development from conception through early childhood.

**211L. Child Growth and Development Laboratory**  
Fall, Spring. 1 credit.  
C: FCE 211 concurrently. R: Not open to freshmen.  
Observation and recording the behavior and development of young children.

**212. Children, Youth and Family**  
Fall, Spring. 3(3-0)  
P: FCE 145, SOC 100 or FCE 211. R: Not open to freshmen.  
An ecosystems perspective on development during childhood and adolescence emphasizing family and community contexts.

**225. Ecology of Lifespan Human Development in the Family**  
Fall, Spring. 3(3-0)  
Human development across the lifespan with an ecological perspective. Relationships between human resource professionals and family systems.

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

**270. Introduction to Family Community Services**  
Fall, Spring. 4(3-2)  
Family community services from an ecological perspective. Professional orientation and factors influencing the field. Participation in community agency required.

**280. Community as Context for Individual and Family Development**  
Fall, Spring. 3(2-2)  
Families' and individuals' fit within a community over their life span from an ecological perspective. Analysis of change. Influence of context on development and its implications for family community services. Community observations required.

**320. Interaction Processes with Children in Groups**  
Fall, Spring. 3(3-0)  
P: FCE 211, FCE 211L. 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.

**320L. Interaction with Children-Laboratory**  
Fall, Spring. 1 credit.  
P: FCE 211, FCE 211L; FCE 320 or concurrently. 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.

**321. Curriculum for Early Childhood Programs**  
Fall, Spring. 3(3-0)  
P: FCE 320, FCE 320L. 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.

**321L. Curriculum for Early Childhood Programs: Laboratory**  
Fall, Spring. 1 credit.  
P: FCE 320, FCE 320L, FCE 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.

**345. Principles of Family Studies**  
Fall, Spring. 3(3-0)  
P: FCE 225 R: Not open to freshmen.  
Historical, social, cultural and economic perspectives on contemporary families. Approaches to studying families. Role of communication, resources and decision making in family systems.

**346. Helping Skills in Family Community Services**  
Fall, Summer. 3(2-2)  
P: FCE 270, FCE 280.  
Foundational skill development necessary for the delivery of services to diverse families, including communicating, interviewing, problem solving, and assessment. Application of skills in a field experience.