

805. Integrated Pest Management Systems
Fall. 3(2-12)
Biological, ecological and sociological factors which can be exploited for integrated pest management. Design and management of environmental systems for pest prevention and non-chemical control.

812. Graduate Seminar
Fall, Spring. 1(1-0) A student may earn a maximum of 10 credits in all enrollments for this course.
Current research topics. Student presentation required.

815. Insect Behavior
Fall of odd-numbered years. 3(2-13)
P: ENT 404.
Fundamentals of insect behavior with emphasis on mechanisms. Quantitative methods.
QP: ENT 301, ENT 302 QA: ENT 415

818. Systematics, Morphology, Biology: Adults
Spring of odd-numbered years. 3(1-17)
P: ENT 404.
Classification, identification, morphology, biology and evolutionary relationships of adult insects. Specimens provided.
QP: ENT 301, ENT 302 QA: ENT 418

838. Systematics, Morphology, Biology: Immatures
Fall of even-numbered years. 3(1-17)
P: ENT 404.
Classification, identification, morphology, biology and evolutionary relationships of immature insects. Emphasis on terrestrial holometabola. Collection required.
QP: ENT 418 QA: ENT 438

844. Insect Ecology and Evolution
Spring of even-numbered years. 3(3-0)
P: ENT 404.
Unique characteristics and principles of insect ecology and evolution including trophic relationships, community structure, speciation and coevolution.
QP: ENT 301 or ENT 302 or ENT 425 QA: ENT 444

850. Insect Physiology
Spring of even-numbered years. 4(3-12)
P: ENT 404.
System by system description of insect form and function. Examples of how physiological systems are coordinated for complex biological functions.
QP: ENT 301, ENT 302 QA: ENT 450

851. Molecular Entomology
Fall of odd-numbered years. 3(3-0) Interdepartmental with Genetics.
Analysis of molecular processes unique to insects, and their potentials for genetic engineering.
QA: ENT 851

870. Plant Nematology
Spring of odd-numbered years. 3(2-13)
Interdepartmental with Botany and Plant Pathology.
P: BOT 405.
Biology, host parasite relationships and management of selected nematode diseases of economic plants.
QP: BOT 405 QA: ENT 871

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.

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.
QA: ENT 899

940. Analytical Techniques for Bioactive Compounds: Separation
Spring of even-numbered years. 4(2-16)
Extraction and chromatographic separations of compounds from environmental matrices.
QA: ENT 940

941. Analytical Techniques for Bioactive Compounds: Confirmation
Spring of odd-numbered years. 4(2-16)
Instrumental confirmation of compounds from environmental matrices.
QA: ENT 941

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.
QA: ENT 999

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.
QA: ENE 800

801. Dynamics of Environmental Systems
Spring. 3(3-0)
Principles of mass balance, reaction kinetics, mass transfer, reactor theory in environmental engineering.
QP: CE 481 QA: ENE 801

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.
QP: CE 483 QA: ENE 802

803. Physicochemical Process Laboratory
Spring. 1(0-3)
P: ENE 801. C: ENE 802
Experiments involving physicochemical processes such as air stripping coagulation and flocculation, activated carbon and chemical oxidation.
QP: ENE 801 QA: ENE 802

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.
QP: ENE 801 QA: ENE 804

805. Biological Processes Laboratory
Spring. 1(0-4)
P: ENE 804.
Principles of biological processes applied to wastewater treatment.
QP: ENE 804 QA: ENE 805

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.
QP: CE 481

808. Environmental Analytical Chemistry Laboratory
Spring. 1(0-3)
P: ENE 807. R: Open only to Environmental Engineering majors.
Laboratory work in environmental analytical chemistry.
QP: CE 481

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.
QA: CE 890

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.
QA: ENE 899

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.
QA: ENE 899

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.
QA: FCE 145

211. Child Growth and Development: Conception Through Early Childhood
Fall, Spring. 4(3-2)
R: Not open to freshmen.
Physical, cognitive, social, emotional and ecological aspects of human growth and development from conception through early childhood.
QP: PSY 160 or PSY 170 QA: FCE 262A

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.
QP: FCE 145 or FCE 262A QA: FCE 263

225. Ecology of Family and Human Development
Fall, Spring. 3(3-0)
R: Not open to seniors except seniors in the College of Human Ecology.
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.
QA: FCE 238