

ENTOMOLOGY (ENTO)

ENTO 2001 Introduction to Entomological Research

Description: Familiarize entomology majors with the department, faculty, and other students. Experience a broad overview of the field of entomology and how a degree in entomology can prepare you for many different opportunities and career paths.

Credit hours: 1

Contact hours: Lecture: 1 Contact: 1

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 2003 Insects and Society (N)

Description: Influence of insects and related arthropods on human society. Current issues involving insects, society and the environment. View of insects in folklore and mythology. Basic biology and behavior of insects and use of insects as model systems for biological studies. A course for both majors and non-majors.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

General Education and other Course Attributes: Natural Sciences

ENTO 2143 Global Agricultural Biosecurity and Forensics

Description: Biosecurity vs. biosafety; bioterrorism vs. biocrimes; microbial forensics; globalization; international trade and emerging organisms; invasive species; quarantine; responses; surveillance; detection and diagnostics; risk analysis; the biosecurity system integrated to science and agricultural specialties, economics and defense. Same course as PLP 2143.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 2223 Insects in Global Public Health (N)

Description: Biology of diseases carried by arthropods, including their historical and societal impacts focusing on the intersection of arthropod and human biology.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

General Education and other Course Attributes: Natural Sciences

ENTO 2993 Introduction to Entomology (LN)

Description: Basic biology and classification of insects and closely related animals. Overview of the ecological roles of insects in both natural and managed ecosystems. Previously offered as ENTO 2992 and ENTO 2023.

Credit hours: 3

Contact hours: Lecture: 2 Lab: 2 Contact: 4

Levels: Undergraduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

General Education and other Course Attributes: Scientific Investigation, Natural Sciences

ENTO 3001 Research Skills in Entomology

Description: Introduction to research opportunities in field and laboratory entomology. Focus on literature review, hypothesis formation, and development of a grant proposal.

Credit hours: 1

Contact hours: Lecture: 1 Contact: 1

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 3003 Livestock Entomology

Description: Economic importance, biology and control of pests affecting domestic animals. Biology of diseases carried by arthropods, including their impacts focusing on the intersection of arthropod and animal biology. Previously offered as ENTO 2091.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 3021 Postharvest, Structural, and Urban Arthropod Pests

Prerequisites: ENTO 2993.

Description: The biology and management of insect pests of bulk-stored grains, flour, feed, dried fruits and nuts within food processing plants, warehouses, wholesale and retail distribution systems. Common structural and urban arthropod pests found in and around man-made buildings and their identification, biology and standard management practices.

Credit hours: 1

Contact hours: Lab: 2 Contact: 2

Levels: Undergraduate

Schedule types: Lab

Department/School: Entomology & Plant Pathology

ENTO 3044 Insect Morphology and Physiology

Prerequisites: ENTO 2993 Introduction to Entomology.

Description: Morphology and function of insects and their organ systems and use of selected techniques for the study of insect physiology. May not be used for degree credit with ENTO 5044.

Credit hours: 4

Contact hours: Lecture: 3 Lab: 3 Contact: 6

Levels: Undergraduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 3331 Insect Pests of Agronomic Crops

Prerequisites: ENTO 2993 or concurrent enrollment.

Description: A survey of important arthropods or agronomic crops commonly grown in Oklahoma. Coverage includes identification of pests and beneficial insects, recognition of damage symptoms, discussion of sampling strategies and decision-making processes for management, and integrated pest management tactics.

Credit hours: 1

Contact hours: Lab: 2 Contact: 2

Levels: Undergraduate

Schedule types: Lab

Department/School: Entomology & Plant Pathology

ENTO 3421 Horticultural Insects**Prerequisites:** ENTO 2993 or concurrent enrollment.**Description:** Identification, biology and control of pests attacking horticultural crops. Emphasis on pests injurious to vegetables, fruits, pecans, greenhouse plants, turf and ornamental trees and shrubs.**Credit hours:** 1**Contact hours:** Lab: 2 Contact: 2**Levels:** Undergraduate**Schedule types:** Lab**Department/School:** Entomology & Plant Pathology**ENTO 3461 Insects in Forest Ecosystems****Prerequisites:** ENTO 2993 or concurrent enrollment.**Description:** Identification and seasonal life history of insect pests and beneficial insects on shade trees in urban settings, in commercial forests, and in forest products.**Credit hours:** 1**Contact hours:** Lab: 2 Contact: 2**Levels:** Undergraduate**Schedule types:** Lab**Department/School:** Entomology & Plant Pathology**ENTO 3501 Entomology for Educators****Description:** Hands-on laboratory course designed to provide high school science teachers, FFA or 4H leaders with all of the resources and background information needed to use insects as a model to teach scientific concepts. Curriculum and resources are provided at the level of 7-12th grade and may be adapted to other levels as needed.**Credit hours:** 1**Contact hours:** Lab: 2 Contact: 2**Levels:** Undergraduate**Schedule types:** Lab**Department/School:** Entomology & Plant Pathology**ENTO 3644 Insect Morphology****Prerequisites:** ENTO 2993 or equivalent.**Description:** Insect development and comparative morphology. Offered in combination with 5644. No credit for both ENTO 3644 and ENTO 5644.**Credit hours:** 4**Contact hours:** Lecture: 2 Lab: 4 Contact: 6**Levels:** Undergraduate**Schedule types:** Lab, Lecture, Combined lecture and lab**Department/School:** Entomology & Plant Pathology**ENTO 3663 Turfgrass Integrated Pest Management****Prerequisites:** PLP 3343 or ENTO 2993.**Description:** The biology, ecology, and identification of fungal, nematode, and insect turfgrass pests. Contemporary concepts and applications of integrated control practices available for managing turfgrass pests along with decision-making tools for use in turfgrass pest management programs. Same course as PLP 3663.**Credit hours:** 3**Contact hours:** Lecture: 2 Lab: 2 Contact: 4**Levels:** Undergraduate**Schedule types:** Lab, Lecture, Combined lecture and lab**Department/School:** Entomology & Plant Pathology**ENTO 4223 Ecological Methodology****Prerequisites:** One course in either ecology or general biology.**Description:** Use of insects and other invertebrates for describing and evaluating interactions of individuals and populations with their environments. Coverage of behavioral and physiological ecology on consequences to individuals; population and community ecology considered in dynamics of groups of organisms in ecosystems. May not be used for Degree Credit with ENTO 5223.**Credit hours:** 3**Contact hours:** Lecture: 2 Lab: 2 Contact: 4**Levels:** Undergraduate**Schedule types:** Lab, Lecture, Combined lecture and lab**Department/School:** Entomology & Plant Pathology**ENTO 4400 Special Topics****Prerequisites:** Consent of instructor.**Description:** Special topics in plant pathology, entomology or related fields. Same course as PLP 4400. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.**Credit hours:** 1-3**Contact hours:** Contact: 1-3 Other: 1-3**Levels:** Undergraduate**Schedule types:** Independent Study**Department/School:** Entomology & Plant Pathology**ENTO 4464 Insect Biology and Classification****Prerequisites:** ENTO 2993 or equivalent or consent of instructor.**Description:** Insect phylogeny, taxonomy, behavior, morphology and physiology in the context of ecosystem function. Major roles of insects in shaping ecosystem diversity, as indicators of environmental integrity, and as vectors of plant and animal pathogens and parasites.**Credit hours:** 4**Contact hours:** Lecture: 2 Lab: 4 Contact: 6**Levels:** Undergraduate**Schedule types:** Lab, Lecture, Combined lecture and lab**Department/School:** Entomology & Plant Pathology**ENTO 4484 Aquatic Entomology****Prerequisites:** ENTO 2993 or instructor permission.**Description:** Biology, taxonomy and ecology of insects and other invertebrates, inhabiting freshwater environments. Identification and biology of individual taxa. Roles of insects in aquatic ecology, as a forage base. May not be used for degree credit with ENTO 5484 or ZOO 5484. Same course as ZOO 4484. Previously offered as ENTO 4483.**Credit hours:** 4**Contact hours:** Lecture: 3 Lab: 2 Contact: 5**Levels:** Undergraduate**Schedule types:** Lab, Lecture, Combined lecture and lab**Department/School:** Entomology & Plant Pathology**ENTO 4513 Biological Control****Prerequisites:** ENTO 2993 or equivalent or consent of instructor.**Description:** The ecological principles and applied practices of biological control of insects and weeds. Principles include the scientific basis of biological control; natural enemies and their biology; biological control methods; and biological control in invasive species and pest management programs. May not be used for degree credit with ENTO 5513.**Credit hours:** 3**Contact hours:** Lecture: 2 Lab: 2 Contact: 4**Levels:** Undergraduate**Schedule types:** Lab, Lecture, Combined lecture and lab**Department/School:** Entomology & Plant Pathology

ENTO 4573 Introduction to Forensic Entomology

Description: The role of arthropods in decomposition, the use of forensic entomology in criminal and civil investigations and the increasing importance of forensic science on society; material includes content that some students may find disturbing. May not be used for degree credit with ENTO 5573.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 4733 Insect Behavior and Chemical Ecology

Prerequisites: ENTO 2993 and CHEM 3015 or equivalent.

Description: Behavioral biology of insects. Ecological interactions among organisms mediated by naturally produced chemicals. An interface of ecology, behavior, physiology and chemistry with examples from animals, plants and microorganisms. Origin, function, significance and utilization of semiochemicals such as pheromones and allelochemicals. No credit for students with credit in ENTO 5733.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 4800 Entomology Practicum

Prerequisites: Consent of instructor.

Description: Supervised research or extension experience with faculty in the Entomology/Plant Pathology Dept. or with approved governmental agencies or private employers. Written report required at close of practicum. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.

Credit hours: 1-4

Contact hours: Contact: 1-4 Other: 1-4

Levels: Undergraduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology

ENTO 4854 Medical and Veterinary Entomology

Prerequisites: ENTO 2993 or consent of instructor.

Description: Biology and control of arthropod vectors of disease and the diseases carried by arthropods. Course includes emphasis on scientific writing skills. No credit for students with credit in ENTO 5854.

Credit hours: 4

Contact hours: Lecture: 3 Lab: 4 Contact: 7

Levels: Undergraduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 4923 Applications of Biotechnology in Pest Management

Prerequisites: BIOL 1114 and CHEM 1215 or equivalents.

Description: Applications of biotechnology in managing arthropod pests of plants, animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, effectiveness and associated problems or concerns resulting from their use. Same course as PLP 4923 and PLNT 4923. Previously offered as ENTO 4992. May not be used for Degree Credit with ENTO 5923.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Undergraduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 5000 Master's Research and Thesis

Description: Research in entomology. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.

Credit hours: 1-6

Contact hours: Contact: 1-6 Other: 1-6

Levels: Graduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology

ENTO 5003 Insect Biochemistry

Prerequisites: BIOC 3653 or equivalent or consent of instructor.

Description: Biochemical processes in insects and closely related arthropods with emphasis on pathways unique to this group. Biochemical aspects of arthropod-microbe and arthropod-host interactions.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 5020 Special Problems

Prerequisites: Graduate standing.

Description: Selected studies in the area of entomology, acarology or araneology. Offered for variable credit, 1-8 credit hours, maximum of 8 credit hours.

Credit hours: 1-8

Contact hours: Contact: 1-8 Other: 1-8

Levels: Graduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology

ENTO 5044 Insect Morphology and Physiology

Prerequisites: ENTO 2993 Introduction to Entomology.

Description: Functions of the organ systems and demonstration of selected techniques for study of insect physiology. Offered in combination with ENTO 3044. May not be used for degree credit with ENTO 3044. Previously offered as ENTO 5043.

Credit hours: 4

Contact hours: Lecture: 3 Lab: 3 Contact: 6

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5223 Ecological Methodology

Prerequisites: One course in either ecology or general biology.

Description: Use of insects and other invertebrates for describing and evaluating interactions of individuals and populations with their environments. Coverage of behavioral and physiological ecology on consequences to individuals; population and community ecology considered in dynamics of groups of organisms in ecosystems. May not be used for Degree Credit with ENTO 4223.

Credit hours: 3

Contact hours: Lecture: 2 Lab: 2 Contact: 4

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5464 Insect Biology and Classification

Prerequisites: ENTO 2993 or equivalent or consent of instructor.

Description: Insect phylogeny, taxonomy, behavior, morphology and physiology in the context of ecosystem function. Major roles of insects in shaping ecosystem diversity, as indicators of environmental integrity, and as vectors of plant and animal pathogens and parasites. No credit for students with credit in ENTO 4464.

Credit hours: 4

Contact hours: Lecture: 2 Lab: 4 Contact: 6

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5484 Aquatic Entomology

Prerequisites: ENTO 2993 or instructor permission.

Description: Biology, taxonomy and ecology of insects and other invertebrates, inhabiting freshwater environments. Identification and biology of individual taxa. Roles of insects in aquatic ecology, as a forage base, and as indicators of biotic integrity of aquatic systems. May not be used for degree credit with ENTO 4484 or ZOOL 4484. Same course as ZOOL 5484. Previously offered as ENTO 5483.

Credit hours: 4

Contact hours: Lecture: 3 Lab: 2 Contact: 5

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5501 Entomology For Educators

Description: Hands-on laboratory course designed to provide educators (teachers, FFA or 4H leaders, etc.) with all of the resources and background information needed to use insects as a model to teach scientific concepts. No credit given for students who have taken ENTO 3501.

Credit hours: 1

Contact hours: Lab: 2 Contact: 2

Levels: Graduate

Schedule types: Lab

Department/School: Entomology & Plant Pathology

ENTO 5513 Biological Control

Prerequisites: ENTO 4464 or equivalent or consent of instructor.

Description: The ecological principles and applied practices of biological control of insects and weeds. Principles include the scientific basis of biological control; natural enemies and their biology; biological control methods; and biological control in invasive species and past management programs. May not be used for degree credit with ENTO 4513. Previously offered as ENTO 5512.

Credit hours: 3

Contact hours: Lecture: 2 Lab: 2 Contact: 4

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5524 Integrated Management of Insect Pests and Pathogens

Prerequisites: ENTO 2993 and PLP 3344 or equivalent or consent of instructor.

Description: Modern theory and practices for management of insect pests and pathogens in plant production systems, emphasizing an ecologically-based, integrated approach. Basic concepts of pest management, decision-making, cost/benefit analysis and risk/benefit analysis. Same course as PLP 5524. Previously offered as ENTO 5523.

Credit hours: 4

Contact hours: Lecture: 2 Lab: 4 Contact: 6

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5550 Advanced Agronomic Entomology

Prerequisites: ENTO 4523.

Description: Special problems in advanced agronomic entomology. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.

Credit hours: 1-5

Contact hours: Contact: 1-5 Other: 1-5

Levels: Graduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology

ENTO 5573 Introduction to Forensic Entomology

Description: The role of arthropods in decomposition, the use of forensic entomology in criminal and civil investigations and the increasing importance of forensic science on society; material includes content that some students may find disturbing. May not be used for degree credit with ENTO 4573.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 5613 Host Plant Resistance

Prerequisites: ENTO 2993 and PLP 3343 or equivalent and a general genetics course; or consent of instructor.

Description: Interactions of plants and the herbivorous insects and pathogenic micro-organisms that attack them. Development and deployment of multiple-pest resistant cultivars in crop management systems. Same course as PLP 5613. Previously offered as ENTO 5612.

Credit hours: 3

Contact hours: Lecture: 2 Lab: 2 Contact: 4

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5623 Advanced Biotechnology Methods

Prerequisites: BIOC 3653, BIOL 3023 or equivalent or consent of instructor.

Description: Principles of biotechnology and laboratory experience with basic experimental techniques used in biochemical and molecular biological research. Same course as PLP 5623.

Credit hours: 3

Contact hours: Lecture: 1 Lab: 4 Contact: 5

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5644 Insect Morphology

Prerequisites: ENTO 2993 or equivalent.

Description: Insect development and comparative morphology. Offered in combination with ENTO 3644. No credit for both ENTO 3644 and ENTO 5644.

Credit hours: 4

Contact hours: Lecture: 2 Lab: 4 Contact: 6

Levels: Graduate

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Entomology & Plant Pathology

ENTO 5700 Teaching Practicum in Entomology

Prerequisites: Graduate student standing.

Description: Variable credit offering for graduate students who wish to develop skills in teaching, assessment and curriculum development working in conjunction with a primary instructor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.

Credit hours: 1-6

Contact hours: Contact: 1-6 Other: 1-6

Levels: Graduate

Schedule types: Discussion

Department/School: Entomology & Plant Pathology

ENTO 5710 Advanced Medical and Veterinary Entomology

Prerequisites: ENTO 4854.

Description: Special problems in methods of disease transmission, animal parasite control and the relationships existing between parasite and host. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.

Credit hours: 1-5

Contact hours: Contact: 1-5 Other: 1-5

Levels: Graduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology

ENTO 5733 Insect Behavior and Chemical Ecology

Prerequisites: ENTO 2993 and CHEM 3015 or equivalent.

Description: Behavioral biology of insects. Ecological interactions among organisms mediated by naturally produced chemicals. An interface of ecology, behavior, physiology and chemistry with examples from animals, plants and microorganisms. Origin, function, significance and utilization of semiochemicals such as pheromones and allelochemicals. No credit for students with credit in ENTO 4733.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 5753 Insecticide Toxicology

Prerequisites: Organic chemistry or 15 credit hours biology.

Description: Properties and mode of action of the major insecticidal materials. Assessment of their impact on the environment.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 5833 Insect Molecular Biology

Prerequisites: ENTO 2993 and BIOL 3024 or equivalent or consent of instructor.

Description: Concepts and methods in molecular biology with emphasis on genetics of insects. Application of molecular techniques in insect biology.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 5850 Epidemiology of Arthropod-Borne Diseases

Prerequisites: ENTO 4854 or equivalent.

Description: The relationships existing between the hosts, arthropod vectors and causal agents of disease and the principles of disease prevention or suppression by the intelligent use of biological principles. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.

Credit hours: 1-4

Contact hours: Contact: 1-4 Other: 1-4

Levels: Graduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology

ENTO 5870 Scientific Presentations

Prerequisites: Consent of instructor.

Description: Preparation and delivery of scientific presentations including 50-minute seminars, 10-minute talks, and posters. Same course as PLP 5870 Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.

Credit hours: 1-5

Contact hours: Contact: 1-5 Other: 1-5

Levels: Graduate

Schedule types: Discussion

Department/School: Entomology & Plant Pathology

ENTO 5923 Applications of Biotechnology in Pest Management

Prerequisites: BIOL 1114 and CHEM 1215 or equivalents.

Description: Applications of biotechnology in managing arthropod pests of plants, animals, plant pathogens, and weeds. Introduction to underlying technology, products being developed and deployed, effectiveness and associated problems or concerns resulting from their use. May not be used for degree credit with ENTO 4923.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 5992 Career Skills and Professionalism for Scientists

Prerequisites: Graduate standing.

Description: For graduate students majoring in science-based fields, especially those nearing graduation. Skills needed for effective job application and interviewing, career development and advancement, communication with professional colleagues and the public, and personal professional development. Same course as PLP 5992.

Credit hours: 2

Contact hours: Lecture: 2 Contact: 2

Levels: Graduate

Schedule types: Lecture

Department/School: Entomology & Plant Pathology

ENTO 6000 Doctoral Research and Dissertation

Prerequisites: MS in entomology or consent of major professor.

Description: Independent investigation under the direction and supervision of a major professor. Offered for variable credit, 1-10 credit hours, maximum of 36 credit hours.

Credit hours: 1-10

Contact hours: Contact: 1-10 Other: 1-10

Levels: Graduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology

ENTO 6100 Advanced Insect Physiology

Prerequisites: ENTO 3044 or ENTO 5044 or equivalent.

Description: Special problems in advanced insect physiology. Offered for variable credit, 1-5 credit hours, maximum of 5 credit hours.

Credit hours: 1-5

Contact hours: Contact: 1-5 Other: 1-5

Levels: Graduate

Schedule types: Independent Study

Department/School: Entomology & Plant Pathology