

Entomology - ENTM

Courses

ENTM 2000 PESTS, PATHOGENS, PARASITES, AND PEOPLE (3) LEC. 3. Past and present problems of pests and disease involving humans and the food chain.

ENTM 2040 INSECTS: AN INTRODUCTION TO ENTOMOLOGY (3) LEC. 3. Life processes, importance, and occurrence of insects.

ENTM 2980 INTRODUCTION TO UNDERGRADUATE RESEARCH (1-4) IND/RES. Departmental approval. Directed research in the area of specialty within the department. Course may be repeated for a maximum of 4 credit hours.

ENTM 3040 GENERAL ENTOMOLOGY (4) LEC. 3. LAB. 2. Pr. BIOL 1030 or BIOL 1037. Introduction to the biology and diversity of insects. An insect collection is required.

ENTM 4020 ECONOMIC ENTOMOLOGY (4) LEC. 3. LAB. 2. Pr. BIOL 1030 or BIOL 1037. Consideration of the biological aspects, life histories and control of insects.

ENTM 4920 ENTOMOLOGY INTERNSHIP (5) INT. 5. SU. Practical professional experience under the supervision of internship faculty and/or representatives of state, federal or private agency.

ENTM 4960 SPECIAL PROBLEMS IN ENTOMOLOGY (1-3) IND. Departmental approval. Credit to be arranged. Specialized project or research on a specific topic in entomology to be conducted under faculty supervision. Course may be repeated for a maximum of 3 credit hours.

ENTM 4980 UNDERGRADUATE RESEARCH (1-4) LAB. 2-8. Departmental approval. Directed research in the area of specialty within the department. Course may be repeated for a maximum of 4 credit hours.

ENTM 5120 MEDICAL-VETERINARY ENTOMOLOGY (4) LEC. 3. LAB. 1. Pr. (BIOL 1030 or BIOL 1037) and (ENTM 3040 or ENTM 4020). Survey of insects, ticks, and mites of medical or veterinary importance, emphasizing role as vectors of disease agents and the biology of pathogen-transmission cycles. Labs focus on methods of vector sampling and surveillance, identification, and case studies of special topics. May count either ENTM 5120 or ENTM 6120.

ENTM 5220 INSECT ECOLOGY (4) LEC. 3. LAB. 3. Pr. BIOL 3060. Ecological interactions of insects and their environment, with emphasis on is herbivory, predation, parasitism and mutualism, as well as population and community dynamics.

ENTM 5300 INSECT DIVERSITY (4) LEC. 3. LAB. 1. Pr. ENTM 3040 or ENTM 4020. Survey of the biodiversity of insects, stressing taxon diagnostics.

ENTM 5330 INTEGRATED PEST MANAGEMENT (3) LEC. 3. Aspects of pest management as a broad-based approach that integrates practices for economic control of pests. May count either ENTM/HORT/PLPA 5330/6330.

ENTM 5360 LANDSCAPE ENTOMOLOGY (4) LEC. 3. LAB. 3. Pr. (BIOL 1020 or BIOL 1027) or (BIOL 1030 or BIOL 1037). Identification and management of arthropod pests in the landscape. Recognition of pests and damage to trees, turf and ornamental plants.

ENTM 5370 URBAN ENTOMOLOGY (4) LEC. 3. LAB. 3. Pr. ENTM 3040 or ENTM 4020. Identification, biology and control of insect and other household arthropod pests.

ENTM 5500 BEE BIOLOGY AND MANAGEMENT (3) LEC. 2. LAB. 2. Pr. BIOL 1030 or BIOL 1037. Biology and management of bees, with an emphasis on honey bees and beekeeping. May count either ENTM 5500 or ENTM 6500.

ENTM 5660 FIGURE FUNDAMENTALS : SCIENTIFIC ILLUSTRATION (3) LEC/STU. 1. Scientific illustration and data visualization implemented through the Adobe creative cloud package. May count either ENTM 5660, APBT 5660, or ENTM 6660.

ENTM 5700 VECTOR TRANSMISSION OF PLANT PATHOGENS (3) LEC. 3. Pr. BIOL 1030 or BIOL 1037. This course is designed to give students an understanding of vectors of plant pathogens. The use of case studies during this course is designed to show real world examples of plant pathogens which utilize insects as an important part of their lifecycle. May only count one of PLPA/ENTM 5700/6700.

ENTM 5820 PRINCIPLES AND TOOLS FOR REPRODUCIBLE SCIENCE IN AGRICULTURE (2) LEC. 2. Pr. STAT 2510. Reproducibility is fundamental to science. This course will cover basic concepts in scientific reproducibility, accessibility, and organization as it relates to handling large datasets and publishing data workflows.

ENTM 5920 INTERNSHIP (3) IND. 3. SU. Departmental approval. Practical professional experience under the supervision of internship faculty and a representative of a state, federal, or private agency.

ENTM 6120 MEDICAL-VETERINARY ENTOMOLOGY (4) LEC. 3. LAB. 3. Survey of insects, ticks, and mites of veterinary importance, emphasizing role as vectors of disease agents and the biology of pathogen-transmission cycles. Labs focus on methods of vector sampling and surveillance, identification, and case studies of special topics. May count either ENTM 5120 or ENTM 6120.

ENTM 6220 INSECT ECOLOGY (4) LEC. 3. LAB. 3. Pr. BIOL 3060. Departmental approval. Ecological interactions of insects and their environment, with emphasis on herbivory, predation, parasitism and mutualism, as well as population and community dynamics.

ENTM 6300 INSECT DIVERSITY (4) LEC. 3. LAB. 1. Pr. ENTM 3040 or ENTM 4020. Survey of the biodiversity of insects, stressing taxon diagnostics.

ENTM 6330 INTEGRATED PEST MANAGEMENT (3) LEC. 3. Aspects of pest management as a broad-based approach that integrates practices for economic control of pests. May count either ENTM/HORT/PLPA 5330/6330.

ENTM 6360 LANDSCAPE ENTOMOLOGY (4) LEC. 3. LAB. 3. Pr. (BIOL 1020 or BIOL 1027) or (BIOL 1030 or BIOL 1037). Identification and management of arthropod pests in the landscape. Recognition of pests and damage to trees, turf and ornamental plants.

ENTM 6370 URBAN ENTOMOLOGY (4) LEC. 3. LAB. 3. Pr. ENTM 3040 or ENTM 4020. Identification, biology and control of insect and other household arthropod pests.

ENTM 6440 INSECT MORPHOLOGY (5) LEC. 3. LAB. 6. Pr. ENTM 3040 or ENTM 4020. Departmental approval. Comparative external anatomy and generalized internal structures of insects. Characteristics used in taxonomy will be emphasized. Credit will not be given for both ENTM 5440 and ENTM 6440.

ENTM 6500 BEE BIOLOGY AND MANAGEMENT (3) LEC. 2. LAB. 2. Biology and management of bees, with an emphasis on honey bees and beekeeping. May count either ENTM 5500 or ENTM 6500.

ENTM 6660 FIGURE FUNDAMENTALS : SCIENTIFIC ILLUSTRATION (3) LEC. 2, LST. 1. Scientific illustration and data visualization implemented through the Adobe creative cloud package. May take either ENTM 5660, APBT 5660, or ENTM 6660.

ENTM 6700 VECTOR TRANSMISSION OF PLANT PATHOGENS (3) LEC. 3. This course is designed to give students an understanding of vectors of plant pathogens. The use of case studies during this course is designed to show real world examples of pathogens which utilize insects as an important part of their lifecycle. May only count one of PLPA/ENTM 5700/6700.

ENTM 6820 PRINCIPLES AND TOOLS FOR REPRODUCIBLE SCIENCE IN AGRICULTURE (2) LEC. 2. Reproducibility is fundamental to science. This course will cover basic concepts in scientific reproducibility, accessibility, and organization as it relates to handling large datasets and publishing data workflows.

ENTM 6920 INTERNSHIP (3) IND. 3. SU. Departmental approval. Practical professional experience under the supervision of internship faculty and a representative of a state, federal, or private agency.

ENTM 7100 GENERAL TOXICOLOGY (4) LEC. 3. LAB. 3. Pr. ENTM 3040 and CHEM 2030. Departmental approval. History, mechanism of action, metabolism, and structure activity relationship of natural and synthetic insecticides. Contemporary laboratory techniques in toxicology will be featured.

ENTM 7200 INSECT PHYSIOLOGY (4) LEC. 3. LAB. 3. Pr. ENTM 3040. Departmental approval. Introduction to insect physiology stressing structure and function of each organ system. Methods used in physiological research will be emphasized.

ENTM 7230 PRACTICAL EVOLUTION (3) LEC. 3. Pr. BIOL 5800 or BIOL 6800. Students will learn evolutionary biology by making it happen, that is, by building and running simulation models. They will also learn of opportunities to apply evolutionary theory to practical problems in agriculture, public health and conservation.

ENTM 7900 DIRECTED STUDIES IN ENTOMOLOGY I (1-5) LEC. SU. Discussion groups on specific topics, assigned readings, on laboratory problems or field research. Course may be repeated for a maximum of 5 credit hours.

ENTM 7950 SEMINAR (1) SEM. 1. SU. Presentation and discussion of scientific literature of thesis research findings. Required of all M.S. candidates.

ENTM 7960 SPECIAL PROBLEMS IN ENTOMOLOGY (1-4) LAB. 2-8. Departmental approval. Specialized project or research on a specific topic in entomology to be conducted under faculty supervision. Course may be repeated for a maximum of 4 credit hours.

ENTM 7990 RESEARCH AND THESIS (1-10) MST. Topics may focus on technical laboratory problems or field research related to arthropod biology. Admission to the M.S. Program. Course may be repeated with change in topics.

ENTM 8900 DIRECTED STUDIES IN ENTOMOLOGY II (5) LEC. 5. Discussion groups on specific topics, assigned reading on laboratory problems or field research.

ENTM 8910 TEACHING PRACTICUM (1) LAB. 2. SU. Departmental approval. Practical and theoretical issues of laboratory learning, and pedagogical facilitation. Required of all PhD students. Course may be repeated for a maximum of 3 credit hours.

ENTM 8930 JOURNAL REVIEW FOR ENTOMOLOGY AND PLANT PATHOLOGY (1) LEC. 1. Pr. ENTM 3040 and ENTM 4020 or (PLPA 3000 or PLPA 3003). Discussion of recent scientific publications on basic aspects of research in entomology and plant pathology. Course may be repeated for a maximum of 3 credit hours.

ENTM 8950 SEMINAR (1) LEC. 1. SU. Presentation and discussion of scientific literature or dissertation research findings. Required of all Ph.D. students.

ENTM 8960 ADVANCED SPECIAL PROBLEMS IN ENTOMOLOGY (1-4) LAB. 2-8. Departmental approval. Credit to be arranged. Specialized project or research on a specific topic in entomology to be conducted under faculty supervision. Course may be repeated for a maximum of 4 credit hours.

ENTM 8990 RESEARCH AND DISSERTATION (1-10) DSR. Admission to the Ph.D. Program. Course may be repeated with change in topics.