## Courses


**ENTM 2040/2043 INSECTS: AN INTRODUCTION TO ENTOMOLOGY (3)** LEC. 3. Life processes, importance, and occurrence of insects.

**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. 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 (2-4)** IND. Departmental approval. Directed research in the area of specialty within the department. Course may be repeated for a maximum of 4 credit hours.

**ENTM 4997 HONORS THESIS (1-6)** IND. Pr. Honors College. Departmental approval. Course may be repeated for a maximum of 6 credit hours.

**ENTM 5010 ENTOMOLOGY FOR EDUCATORS (4)** LEC. 4. LAB. 3. Pr. BIOL 1030 or BIOL 1037. Biology and diversity of insects and related arthropods with applications for educators. An insect collection and an entomological exposition are required.

**ENTM 5120 MEDICAL-VETERINARY ENTOMOLOGY (4)** LEC. 3. LAB. 3. Pr. (BIOL 1030 or BIOL 1037) and (ENTM 3040 or ENTM 4020). or instructor approval. Students without the prerequisite ENTM course must be approved by the instructor or take ENTM 3040 or ENTM 4020 concurrently with ENTM 5120. 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 5140 AQUATIC INSECTS (4)** LEC. 3. LAB. 3. Pr. ENTM 3040 or BIOL 4010. Biology and ecology of aquatic and semi-aquatic insects. Laboratory sessions focus on identification at the family and generic levels, and experience in collecting and field techniques.

**ENTM 5150 ARACHNOLOGY (4)** LEC. 3. LAB. 3. Pr. ENTM 3040. Biology, behavior and systematics of all arachnid groups, with major emphasis on spiders and mites.

**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 SYSTEMATIC ENTOMOLOGY (4)** LEC. 3. LAB. 4. Pr. ENTM 3040 or ENTM 4020. Departmental approval. Learn to use the tools of the taxonomist to identify common families of insects. A collection is required. Field trips will be taken.

**ENTM 5330 INTEGRATED PEST MANAGEMENT (4)** LEC. 3. LAB. 2. Pr. ENTM 3040 or ENTM 4020. Integrated management of insects by environmental, biological, genetic, chemical and legal means.

**ENTM 5360/5363 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 5440 INSECT MORPHOLOGY (4)** LEC. 3. LAB. 4. Pr. ENTM 3040 and ENTM 4020. Departmental approval. Form and function in insects insects and related arthropods emphasizing morphological characteristics used in insect identification.
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 6010 ENTOMOLOGY FOR EDUCATORS (4) LEC. 4. LAB. 3. Pr. BIOL 1030 or BIOL 1037. Biology and diversity of insects and related arthropods with applications for educators. An insect collection and an entomological exposition are required.

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 6140 AQUATIC INSECTS (4) LEC. 3. LAB. 3. Pr. ENTM 3040 or BIOL 4010. Departmental approval. Biology and ecology of aquatic and semi-aquatic insects. Laboratory sessions focus on identification at the family and generic levels, and experience in collecting and field techniques.

ENTM 6150 ARACHNOLOGY (4) LEC. 3. LAB. 3. Pr. ENTM 3040. Departmental approval. Biology, behavior and systematics of all arachnid groups, with major emphasis on spiders and mites.

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 SYSTEMATIC ENTOMOLOGY (5) LEC. 3. LAB. 6. Pr. ENTM 3040 or ENTM 4020. Departmental approval. Principles of systematics and identification of insects through orders, families, genera, and species. Collections are required. Credit will not be given for both ENTM 4300 and ENTM 7300.

ENTM 6330 INTEGRATED PEST MANAGEMENT (4) LEC. 3. LAB. 2. Pr. ENTM 3040 or ENTM 4020. Integrated management of insects by environmental, biological, genetic, chemical and legal means.

ENTM 6360/6366 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 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 7190 PLANT AND ANIMAL INTERACTIONS (3) LEC. 3. Pr. BIOL 3060. Departmental approval. Ecological and evolutionary interrelationships emphasizing pollination biology, seed dispersal and plant-herbivore interactions.

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 7330 MEDICAL-VETERINARY ENTOMOLOGY (4) LEC. 3. LAB. 3. Pr. ENTM 3040 or BIOL 6110. Departmental approval. Insects, mites, and other arthropods of medical or veterinary importance, identification of species, their biology and role as vectors of disease agents.

ENTM 7345 TROPICAL BIOLOGY: AN ECOLOGICAL APPROACH (8) LEC. 4. LAB. 12. Pr. At least 15 credits each with a minimum grade of B in BIOL 7000-7999. Departmental approval. The principles of ecology in the tropics.

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 7910 TEACHING PRACTICUM (1) LAB. 2. SU. Departmental approval. The teaching practicum will address the practical and heretical issues of laboratory learning and facilitating the skills of pedagogy. Course may be repeated for a maximum of 3 credit hours.

ENTM 7930 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 2 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 ADVANCED SPECIAL PROBLEMS IN ENTOMOLOGY I (1-5) IND. 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 5 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 (1-5) LEC. SU. Discussion groups on specific topics, assigned reading on laboratory problems or field research. Course may be repeated for a maximum of 5 credit hours.

ENTM 8910 TEACHING PRACTICUM (1-3) 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 II (1-5) 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 5 credit hours.

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