and advanced graduate students on research topics in entomology and allied fields. Graded Satisfactory (S) or No Credit (NC).

ENTM 251. Seminar in Insect-Plant Interactions (2) W Seminar, 2 hours. Prerequisite(s): ENTM 241 or consent of instructor. Rigorous examinations and interpretation of published experimental data dealing with insect behavior, and an attempt to derive general principles underlying behavior. Subject matter varies from year to year. Course may be taken more than once for credit. Paine, Trumble, Walker

ENTM 252. Seminar in Insect Behavior (2) S Seminar, 2 hours. Prerequisite(s): BIOL 162/ENTM 162 or consent of instructor. An analysis and interpretation of behavior of insect pests. Subject matter varies from year to year. Course may be repeated as content changes. Carde, Milar, Visscher

ENTM 254. Seminar in Biological Control (2) F Seminar, 2 hours. Prerequisite(s): BIOL 127/ENTM 127, ENTM 129, or consent of instructor. Concepts, questions and hypotheses in biological control. Students who present a seminar receive a letter grade; other students receive a Satisfactory (S) or No Credit (NC) grade. Bellows, Stouthamer

ENTM 255. Seminar in Medical and Veterinary Entomology (2) F Seminar, 2 hours. Prerequisite(s): ENTM 126 or consent of instructor. Rigorous review and analysis of advanced topics in medical and veterinary entomology and related disciplines. Students who present a seminar receive a letter grade; other students receive a Satisfactory (S) or No Credit (NC) grade. Course is repeatable as content changes. Mullens, Walton

ENTM 256. Seminar in Systematic Entomology (2) S Seminar, 2 hours. Prerequisite(s): BIOL 112/BPS 112/ENTM 112 or consent of instructor. Selected topics in insect systematics. Students who present a seminar receive a letter grade; other students receive a Satisfactory (S) or No Credit (NC) grade. Course is repeatable as content changes. Heraty

ENTM 258. Seminar in Insect Pest Management (2) W Seminar, 2 hours. Prerequisite(s): consent of instructor. Selected topics in insect pest management. Students who present a seminar receive a letter grade; other students receive a Satisfactory (S) or No Credit (NC) grade. Course is repeatable as content changes. Ferrington

ENTM 261. Seminar in Genetics, Genomics, and Bioinformatics (1) W, S Seminar, 1 hour. Prerequisite(s): graduate standing or consent of instructor. Oral reports by visiting scholars, faculty, and students on current research topics in Genetics, Genomics, and Bioinformatics. Graded Satisfactory (S) or No Credit (NC). Course is repeatable. Cross-listed with BCH 261, BIOL 261, BPSC 261, GEN 261, and PLPA 261.

ENTM 262. Seminar in Molecular Biology and Genomics of Disease Vectors (1) Seminar, 1 hour. Prerequisite(s): graduate standing or consent of instructor. Seminar series, sponsored by the Center for Disease-Vector Research at the Institute for Integrative Genome Biology, provides an opportunity for graduate students to discuss current issues of molecular biology and genomics of vector insects and pathogens they transmit with guest speakers. Graded Satisfactory (S) or No Credit (NC). Course is repeatable. Cross-listed with MCBL 262.

ENTM 271. Research Seminar in Management of Vegetable Crop Pests (1) W Seminar, 1 hour. Prerequisite(s): consent of instructor. Seminar and critical discussion emphasizing current research and advances in management of vegetable crop pests. Graded Satisfactory (S) or No Credit (NC). Course is repeatable. Trumble

ENTM 272. Research Seminar in Insect Communication and Behavior (1) F, W, S Seminar, 1 hour. Prerequisite(s): consent of instructor. Seminar and critical discussion emphasizing current research and advances in insect communication and behavior. Graded Satisfactory (S) or No Credit (NC). Course is repeatable. Carde, Milar, Visscher

ENTM 276. Research Seminar in Medical, Urban, and Veterinary Entomology (1) F, S Seminar, 1 hour. Prerequisite(s): consent of instructor. Seminar and critical discussion emphasizing current research and advances in medical, urban, and veterinary entomology. Graded Satisfactory (S) or No Credit (NC). Course is repeatable. Mullens, Rust, Walton

ENTM 277. Research Seminar in Insect Biochemistry and Toxicology (1) F, W, S Seminar, 1 hour. Prerequisite(s): consent of instructor. Seminar and critical discussion emphasizing current research and advances in insect biochemistry and toxicology. Graded Satisfactory (S) or No Credit (NC). Course is repeatable. Gill

ENTM 289. Special Topics in Neuroscience (2) F, W, S Seminar, 2 hours. Prerequisite(s): graduate standing or consent of instructor. An interdisciplinary seminar consisting of student presentations and discussion of selected topics in neuroscience. Content and instructor(s) vary each time course is offered. Students who present a seminar receive a letter grade; other students receive a Satisfactory (S) or No Credit (NC) grade. Course is repeatable. Cross-listed with BCH 289, BIOL 289, CHEM 289, NRSC 289, and PSYC 289. Hatton

ENTM 290. Directed Studies (1-6) F, W, S Literature studies on special topics under direction of a member of the staff. Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

ENTM 291. Individual Study in Coordinated Areas (1-6) F, W, S Prerequisite(s): graduate standing. Faculty assisted programs of individual study for candidates who are preparing for examinations. The following rules apply: 1) Up to 6 units may be taken prior to award of the Master's degree, such units to be in addition to minimum unit requirements for the degree; 2) Up to 12 additional units may be taken prior to advanced candidacy for the Ph.D.; 3) The course may be repeated within these limits. Graded Satisfactory (S) or No Credit (NC).

ENTM 297. Directed Research (1-6) F, W, S Exploratory research toward the development of the dissertation problem or other research not specifically for thesis or dissertation. Graded Satisfactory (S) or No Credit (NC).

ENTM 299. Research for Thesis or Dissertation (1-12) F, W, S Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

Professional Courses

ENTM 301. Teaching Entomology at the College Level (1) F, W, S Seminar, 1 hour. Prerequisite(s): graduate standing in Entomology. A program of weekly meetings and individual formative evaluation required of new entomology Teaching Assistants. Covers instructional methods and classroom/section activities most suitable for teaching Entomology. Conducted by departmental faculty or the Teaching Assistant Development Program. Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

Environmental Engineering

Environmental Sciences

Subject abbreviation: ENSC
College of Natural and Agricultural Sciences

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Keith C. Knopp, Ph.D. Natural Resource Economics
David R. Parker, Ph.D. Soil Biogeochemistry
Roberto Sánchez-Rodriguez, Ph.D. Environmental Policy
Daniel Schlenk, Ph.D. Aquatic Ecotoxicology
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