

Graduate Minor in Entomology

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Rationale statement: The new Graduate Minor in Entomology is based on entomological coursework and is available to any student enrolled in either an M.S. or Ph.D. degree in any department other than entomology at the Ohio State University. We see the need for such a minor as many students are now looking for a broader training beyond their majors. Entomology is also an excellent choice for a graduate minor because it can provide potential job opportunities for graduates as specialists in Entomology and also because insects serve as excellent model systems for fundamental research. This graduate minor will be of particular interest to students enrolled in graduate programs in Horticulture and Crop Science, Plant Pathology, the School of Environment and Natural Resources, Animal Sciences, the medical and veterinary schools, and the Environmental Science Graduate Program (ESGP). For example, ESGP students who work with entomology faculty would tremendously benefit from the entomology minor as they would acquire a lot more in-depth fundamental knowledge about insects and how to work with them. Such disciplinary depth is expected of all interdisciplinary scientists according to a recent study on interdisciplinary training by the National Academies of Sciences. Our new and improved entomology courses have been designed to provide a solid understanding of entomology to graduate students.

Requirements: All students seeking a Graduate Minor in Entomology will take a minimum of 10 credit hours of coursework in Entomology including one required course (from the first list), and the remainder from elective courses (second list).

List 1: Every student must take one of two required courses, for 2-3 credits.

Course	Title	Credits	Term
ENTMLGY 5601	Current Topics in Entomology, Science, and Society	3	Autumn
ENTMLGY 5604	Capstone course: Problem-Based Studies in Plant Health	2	Spring

List 2: Every student must take electives for 7-8 credits, for a total of 10 credits in entomology.

Course	Title	Credits	Term
ENTMLGY 5110	Ecology and Management of Pathogens and Insects Affecting Trees in Forest and Urban Environments	3	Spring (odd)
ENTMLGY 5120	Aquatic Insect Biology	3	Summer
ENTMLGY 5130	Field Insect Taxonomy	3	Summer (even) & Autumn (odd)
ENTMLGY 5420	Insect Behavior	3	Spring (odd)
ENTMLGY 5500	Biological Control of Insect Pests	3	Autumn (odd)
ENTMLGY 5600	Principles and Applications of Integrated Pest Management	3	Spring (even)
ENTMLGY 5605	Human Health Entomology	2	Spring
ENTMLGY 5623	Insect Morphology	2	Spring (even)
ENTMLGY 5800	Pesticide Science	3	Autumn
ENTMLGY 6310	Insect Physiology and Molecular Biology	3	Autumn (odd)
ENTMLGY 6410	Insect Ecology and Evolutionary Processes	3	Autumn (even)
ENTMLGY 6701	Biodiversity Analysis for Ecosystem Sustainability & Resilience	2	Autumn (even)
ENTMLGY 6702	Entomological Techniques and Data Analysis	2	Spring (odd)
ENTMLGY 6703	Molecular Techniques and Data Analysis	2	Spring (even)
ENTMLGY 6704	Systems Analysis from Molecules to Ecosystems	2	Autumn (odd)

(Nov. 2010; revised July 2011, October 2012)