ENTOMOLOGY MINOR

Program Director: Tammatha O’Brien, Ph.D.

The Entomology minor will provide students with a broad understanding of the form and function of insects, their interactions with people and society, and their role as model species for fundamental and applied research. It is intended for students with an interest in insects and their relatives, whether from professional or avocational perspectives.

Program Learning Outcomes
1. Develop a solid foundation on the structure and function of insects and their relatives within an evolutionary context, including the ability to identify orders and common families of arthropods.
2. Comprehend the diversity of insect species and their ecological roles leading to beneficial and injurious effects on human society and economy.
3. Understand and apply the use of insects as models for scientific endeavors, such as developmental biology, genetics, pest management, and population ecology.
4. Integrate knowledge of insects within a specialized field of science.
5. Understand the need to conserve and restore populations of insects in response to global issues such as biodiversity loss, climate change, food security, and invasive species.

Requirements
The minor requires a minimum of 15 course credits, with at least 9 credits at the upper level. No more than 2 courses can count towards both the minor and major.

Required Course:
Course | Title | Credits
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BSCI337 | Biology of Insects | 4

Choose one course from Advanced Entomology:
Course | Title | Credits
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BSCI467 | Freshwater Biology | 4
BSCI480 | Arthropod Form and Function | 4
BSCI481 | Insect Diversity and Classification | 4
BSCI483 | Insects, Pathogens, and Public Health | 3
BSCI487 | IPM: Science-Based Decision Making for Sustainable Pest Management | 4
BSCI494 | Animal-Plant Interactions | 3
BSCI497 | Insect Pests of Ornamentals and Turf | 4

Choose a total of 2-3 courses from two of the following areas (for BSCI majors, one course must be from III-IV):

I. Advanced Biology
Course | Title | Credits
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BSCI361 | Principles of Ecology | 4
BSCI363 | The Biology of Conservation and Extinction | 3
BSCI370 | Principles of Evolution | 3
BSCI392 | Biology of Extinct Animals | 4
& BSCI393 | and Biology of Extinct Animals Laboratory | 4

II. Pollination Biology
Course | Title | Credits
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BSCI121 | Beekeeping | 2
BSCI126 | Pollinators in Crisis | 3

III. Plant Sciences
Course | Title | Credits
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PLSC205 | Introduction to Turf Science and Management | 4
PLSC226 | Plant Diversity | 4
PLSC253 | Woody Plants for Mid-Atlantic Landscapes I | 3
PLSC254 | Woody Plants for Mid-Atlantic Landscape II | 3
PLSC405 | Agroecology | 3
PLSC407 | Advanced Crop Science | 3
PLSC420 | Principles of Plant Pathology | 4
PLSC453 | Weed Science | 3

IV. Environmental Sciences:
Course | Title | Credits
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ENST233 | Introduction to Environmental Health | 4
ENST333 | Ecosystem Health and Protection | 3
ENST334 | Environmental Toxicology | 3
ENST360 | Ecosystem Ecology | 4
ENST403 | Invasive Species Ecology | 3
ENST410 | Ecosystem Services: An Integrated Analysis | 3
ENST436 | Emerging Environmental Threats | 3
ENST441 | Sustainable Agriculture | 3
ENST445 | Ecological Risk Assessment | 3
ENST450 | Wetland Ecology | 3

Depending on the optional courses, a total of 15-17 credits are required. All courses presented for the minor must be passed with a grade of C- or better.