**ENTOMOLOGY, MINOR**

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

**Program Description**

Through the Department of Entomology, the minor in Entomology is primarily designed for (but not restricted to) students in the Agroecology major seeking additional studies in the entomological sciences. Successful completion of this minor area of study will help prepare students for graduate studies in entomology and related fields.

A minor in Entomology requires 22 credits in approved courses in addition to the major requirements of the student's choice. Appropriate course substitutions may be considered with minor adviser approval.

**What is Entomology?**

Entomology is the scientific study of insects (and terrestrial arthropods such as arachnids, centipedes, millipedes, and springtails) and their relationships to humans and the environment. Entomology contributes to a diverse array of disciplines, including agriculture, biodiversity, ecology, epidemiology, forensic science, genetics, human and veterinary medicine, molecular biology, pollination biology, chemical ecology, parasitology, and toxicology.

**You Might Like This Program If…**

- You are passionate about biodiversity and fascinated with insects.
- You are interested in human or animal diseases, such as malaria, that are transmitted by insects.
- You are concerned about pollinators and their relationships to ecosystems and food supply.
- You are interested in invasive species and their impact on ecosystems and agriculture.
- You enjoy basic science and/or applied science.
- You want to teach, conduct research, or have a career in agriculture, environmental science, or biology.

**Program Requirements**

**Requirements for the Minor**

A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/#59-10).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 110</td>
<td>Biology: Basic Concepts and Biodiversity ¹</td>
<td>4</td>
</tr>
<tr>
<td>ENT 313</td>
<td>Introduction to Entomology</td>
<td>2</td>
</tr>
<tr>
<td>ENT 457</td>
<td>Principles of Integrated Pest Management</td>
<td>3</td>
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**Additional Courses**

Additional Courses: Require a grade of C or better

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENT 314</td>
<td>Management of Insect Pests of Ornamentals</td>
<td>1</td>
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or ENT 316  Field Crops Entomology

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<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>ENT 496</td>
<td>Independent Studies</td>
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Select one of the following:

- AGECO 201  Introductory Agroecology
- BIOL 222  Genetics
- BIOL 427  Evolution
- PPEM 405  Microbe-Plant Interactions: Plant Disease and Biological Control

Select 6 credits of the following:

- ENT/VBSC 402  Biology of Animal Parasites
- ENT 410  Insect Structure and Function
- ENT 420  Introduction to Population Dynamics
- ENT 424  Sensory Biology of Insects
- ENT 425  Freshwater Entomology
- ENT 432  Insect Biodiversity and Evolution
- ENT 445  Evolution of Insect Societies

¹  A grade of C or better per course is required for teacher certification.

**Academic Advising**

The objectives of the university’s academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of-class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee’s unit of enrollment will provide each advisee with a primary academic adviser, the information need to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy)

**University Park**

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**Career Paths**

Students with a minor in Entomology have been successful in establishing careers in a diverse number of fields, including agriculture, biology, environmental science, and human and veterinary medicine, and in governmental regulatory and policy positions. Many students have gone on to graduate school in entomology or biology. Students are strongly encouraged to conduct and carry out research in the lab of one or more entomology faculty during their time at Penn State.

MORE INFORMATION ABOUT OPPORTUNITIES FOR GRADUATE STUDIES (http://ento.psu.edu/graduateprograms)
Contact

University Park

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http://ento.psu.edu/graduateprograms