Graduate Curriculum - Entomology
Draft for incoming Fall 2022 students

Doctor of Philosophy (PhD) and Master of Science (MS)
The curriculum for students seeking a PhD or MS in Entomology is composed of an individualized blend of required and selective coursework. Students are encouraged to explore their field of study and develop an academic program that broadly reflects their interests.

Our course curriculum allows for a unique blend of ENTM Core and Special Topics Courses to fit each student’s needs. ENTM Core Courses (3-4 cr.) can include a mixture of lectures, student-led discussions and/or student presentations. These Core Courses are aimed at developing critical thinking, synthesis and communication of key concepts/scientific knowledge, and in-depth understanding of foundational theory. In addition, students take Special Topics Courses (1-2 cr.) that complement the Core Courses and are designed to focus on emerging areas or “hot topics” in entomology. These Special Topics Courses typically focus on research published within the last 5 years and are often discussion-based and/or involve student presentations, although course structure can vary. ENTM Core Courses are taught regularly, while Special Topics Courses are rotated among faculty in the department and are often only taught once.

Students will also be challenged through a range of academic pursuits that include the development of a written research proposal describing their project (all students), a rigorous written and oral candidacy examination (for PhD students only), and successful defense of the thesis/dissertation (all students). A total of 30 (MS) or 90 (PhD) credit hours, including research credits, are required for the degree.

Although scheduling of courses is up to the student and their advisor, students generally complete coursework early in the degree to focus on research later in the program.

Failure to complete the curriculum as described will result in rejection of the plan of study (POS). If you have any questions or concerns, please contact Ian Kaplan (ikaplan@purdue.edu) or Amanda Wilson (apendle@purdue.edu).

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>No. credit hrs</th>
<th>Semester offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAD 61200</td>
<td>Responsible Conduct in Research (variable)</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entomology</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTM 60000</td>
<td>Graduate Student Orientation (Hill)</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Selective Courses</th>
<th>No. credit hrs</th>
<th>Semester offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entomology (PhD, select 3; MS, select 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTM 50800</td>
<td>Integrative Insect Taxonomy (Smith)</td>
<td>4 cr</td>
</tr>
<tr>
<td>ENTM 52500</td>
<td>Medical &amp; Veterinary Entomology (Hill)</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENTM 61000</td>
<td>Insect Pest Management (Krupke)</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENTM 61100</td>
<td>Toxicology of Insecticides (Pittendrigh)</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENTM 6XX</td>
<td>Biological Control (Yaninek)</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

1-ENTM Graduate Curriculum
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Semester Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTM 6XX</td>
<td>Insect Genomics (Harpur)</td>
<td>3 cr</td>
<td>Spring even years</td>
</tr>
<tr>
<td><strong>Statistics (select 1)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 50300</td>
<td>Statistical Methods for Biology (variable)</td>
<td>3 cr</td>
<td>Fall &amp; Spring</td>
</tr>
<tr>
<td>BIOL 58210</td>
<td>Ecological Statistics (Fernandez-Juricic)</td>
<td>3 cr</td>
<td>Fall</td>
</tr>
<tr>
<td>ENTM 64200</td>
<td>Analysis of Ecological Data (Holland)</td>
<td>3 cr</td>
<td>Spring odd years</td>
</tr>
<tr>
<td>FNR 64700</td>
<td>Quant. Methods for Ecologists (Swihart)</td>
<td>3 cr</td>
<td>Fall odd years</td>
</tr>
<tr>
<td><strong>Special Topics (PhD, select 2; MS, select 1)</strong></td>
<td><strong>Special Topics in Entomology</strong></td>
<td>variable</td>
<td>Fall &amp; Spring</td>
</tr>
<tr>
<td>ENTM 69200*</td>
<td>Special Topics in Entomology</td>
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</tbody>
</table>

**See page 3-4 for course titles, availability and instructor**

### Professional Development

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>No. credit hrs</th>
<th>Semester Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTM 60900</td>
<td>Scientific Writing (Enders &amp; Kaplan)</td>
<td>1 cr</td>
<td>Fall even years</td>
</tr>
<tr>
<td>GRAD 55000*</td>
<td>Fellowship &amp; Grant App Writing (Nielsen)</td>
<td>1 cr</td>
<td>Fall</td>
</tr>
<tr>
<td>GRAD 59000*</td>
<td>Grant Writing Light (Nielsen)</td>
<td>1 cr</td>
<td>Spring</td>
</tr>
<tr>
<td>GRAD 59000</td>
<td>Preparing Future Faculty (variable)</td>
<td>1-3 cr</td>
<td>Fall</td>
</tr>
</tbody>
</table>

*Grant app writing (Nielsen) has been taught as both GRAD 550 and GRAD 590*

### Options for Non-ENTM Grad Courses & Additional Coursework

Taking additional coursework—either in entomology or other departments in the college—above and beyond the curriculum outlined above is perfectly acceptable and, in some cases, encouraged. Additional coursework should be discussed and approved by the student’s advisory committee before submitting a plan of study (POS). Graduate students may include up to 6 credits worth of 300- or 400-level coursework on their POS, in addition to their 500- and 600-level classes.

Students who have not previously taken an introductory entomology course should consider registering for ENTM 60200 (Insect Biology) or an undergrad-level entomology course (e.g., ENTM 20600: General Entomology). These options should be discussed with the student’s advisory committee.

Courses with similar content taken as part of an earlier degree program cannot be used to fulfill MS or PhD program requirements.

MS students are required to take 2 ENTM Core Selective Courses from the list above and may not substitute courses from other departments to fulfill this requirement. PhD students may substitute one of their 3 ENTM Core Selective Courses from another department; however, it must be a 3-4 cr. graduate level course that has been approved by the student’s advisory committee.
# Graduate Curriculum - Entomology

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## Schedule of Courses

Reflects known course offerings as of Spring 2022. Course listings are subject to change.

<table>
<thead>
<tr>
<th>2-3 courses</th>
<th>4 (MS) or 6 (PhD) courses</th>
<th>1 course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>Entomology (2-3)</td>
<td>Statistics (1)</td>
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</tbody>
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### Fall 2022

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Instructor</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTM 60000</td>
<td>1</td>
<td>Hill</td>
<td>Graduate Student Orientation</td>
</tr>
<tr>
<td>GRAD 61200</td>
<td>1</td>
<td>variable</td>
<td>Responsible Conduct in Research</td>
</tr>
<tr>
<td>ENTM 61000</td>
<td>3</td>
<td>Krupke</td>
<td>Insect Pest Management</td>
</tr>
<tr>
<td>ENTM 50800</td>
<td>4</td>
<td>Smith</td>
<td>Integrative Insect Taxonomy</td>
</tr>
<tr>
<td>STAT 50300</td>
<td>3</td>
<td>variable</td>
<td>Statistical Methods for Biologists</td>
</tr>
<tr>
<td>BIOL 58210</td>
<td>3</td>
<td>Fernandez-Juric</td>
<td>Ecological Statistics</td>
</tr>
<tr>
<td>ENTM 69200</td>
<td>1</td>
<td>Baributsa</td>
<td>Emerging Global Insect Pests</td>
</tr>
<tr>
<td>ENTM 60900</td>
<td>1</td>
<td>Enders/Kaplan</td>
<td>Science Writing</td>
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<tr>
<td>GRAD 59000</td>
<td>1</td>
<td>Nielsen</td>
<td>Grant Writing Light</td>
</tr>
<tr>
<td>GRAD 59000</td>
<td>2</td>
<td>Morgan</td>
<td>Preparing Future Faculty</td>
</tr>
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### Spring 2023

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Instructor</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAD 61200</td>
<td>1</td>
<td>variable</td>
<td>Responsible Conduct in Research</td>
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<tr>
<td>ENTM 52500</td>
<td>3</td>
<td>Hill</td>
<td>Medical &amp; Veterinary Entomology</td>
</tr>
<tr>
<td>ENTM 6XX</td>
<td>3</td>
<td>Yaninek</td>
<td>Biocontrol</td>
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<tr>
<td>STAT 50300</td>
<td>3</td>
<td>variable</td>
<td>Statistical Methods for Biologists</td>
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<tr>
<td>ENTM 64200</td>
<td>3</td>
<td>Holland</td>
<td>Analysis of Ecological Data</td>
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<tr>
<td>ENTM 69200</td>
<td>1</td>
<td>Richmond</td>
<td>Experimentation and Analysis</td>
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<tr>
<td>GRAD 59000</td>
<td>1</td>
<td>Nielsen</td>
<td>Grant Writing Light</td>
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<tr>
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<td>1</td>
<td>variable</td>
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<td>3</td>
<td>variable</td>
<td>Statistical Methods for Biologists</td>
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<tr>
<td>BIOL 58210</td>
<td>3</td>
<td>Fernandez-Juricic</td>
<td>Ecological Statistics</td>
</tr>
<tr>
<td>FNR 64700</td>
<td>3</td>
<td>Swihart</td>
<td>Quantitative Methods for Ecologists</td>
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<tr>
<td>ENTM 69200</td>
<td>1</td>
<td>Pittendrigh</td>
<td>TBD (urban)</td>
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<tr>
<td>GRAD 55000</td>
<td>1</td>
<td>Nielsen</td>
<td>Fellowship &amp; Grant Application Writing</td>
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<tr>
<td>GRAD 59000</td>
<td>2</td>
<td>Morgan</td>
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### Spring 2024

<table>
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<th>Course #</th>
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<th>Course Title</th>
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<tbody>
<tr>
<td>GRAD 61200</td>
<td>1</td>
<td>variable</td>
<td>Responsible Conduct in Research</td>
</tr>
<tr>
<td>ENTM 61100</td>
<td>3</td>
<td>Pittendrigh</td>
<td>Toxicology of Insecticides</td>
</tr>
<tr>
<td>ENTM 6XX</td>
<td>3</td>
<td>Harpur</td>
<td>Insect Genomics</td>
</tr>
<tr>
<td>STAT 50300</td>
<td>3</td>
<td>variable</td>
<td>Statistical Methods for Biologists</td>
</tr>
<tr>
<td>ENTM 69200</td>
<td>1</td>
<td>Holland</td>
<td>Synthesis in Ecology</td>
</tr>
<tr>
<td>GRAD 55000</td>
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<td>Nielsen</td>
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