# ENTOMOLOGY: INSECT BIOLOGY AND ECOLOGY, BSAG

Requirements for Students Matriculating in or before Academic Year 2018-2019. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENTO 2993</td>
<td>Introduction to Entomology (LN)</td>
<td>3</td>
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<tr>
<td>STAT 2013</td>
<td>Elementary Statistics (A)</td>
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<tr>
<td>ANSI 1124</td>
<td>Introduction to the Animal Sciences</td>
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<tr>
<td>BIOC 2344</td>
<td>Chemistry and Applications of Biomolecules</td>
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<tr>
<td>ENVR 1113</td>
<td>Elements of Environmental Science</td>
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<tr>
<td>FDISC 1133</td>
<td>Fundamentals of Food Science</td>
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<tr>
<td>LA 1013</td>
<td>Principles of Horticultural Science (LN)</td>
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<tr>
<td>NRE 1014</td>
<td>Introduction to Landscape Architecture and Landscape Management</td>
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<tr>
<td>NREM 1104</td>
<td>Introduction to Natural History (LN)</td>
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<tr>
<td>NREM 1113</td>
<td>Elements of Forestry</td>
<td></td>
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<tr>
<td>NREM 2013</td>
<td>Ecology of Natural Resources</td>
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<tr>
<td>PLNT 1213</td>
<td>Introduction to Plant and Soil Systems</td>
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<tr>
<td>SOIL 2124</td>
<td>Fundamentals of Soil Science (N)</td>
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<tr>
<td>AGCM 3103</td>
<td>Written Communications in Agricultural Sciences and Natural Resources</td>
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<tr>
<td>BCOM 3113</td>
<td>Written Communication</td>
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<tr>
<td>BCOM 3443</td>
<td>Business Communication for International Students</td>
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<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
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<tr>
<td>AGCM 3203</td>
<td>Oral Communications in Agricultural Sciences and Natural Resources</td>
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<tr>
<td>SPCH 2713</td>
<td>Introduction to Speech Communication (S)</td>
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<tr>
<td>SPCH 3733</td>
<td>Elements of Persuasion (S)</td>
<td></td>
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## Hours Subtotal
19

## Major Requirements

With approval from the adviser and the department head, a maximum of 30 hours of science courses from an accredited doctoral health program may be substituted for major requirements other than the ENTO core courses of eight hours.

### Core Courses

Select 8 hours of the following:

- ENTO 3044 Insect Morphology and Physiology
- ENTO 4464 Insect Biology and Classification
- ENTO 4854 Medical and Veterinary Entomology

### Additional Entomology

- ENTO 4800 Entomology Practicum

Any entomology or plant pathology course not taken as a core course: 12

### Related Courses

#### Genetics:

Select one of the following:

- BIOL 3023 General Genetics
- PLNT 3554 Plant Genetics and Biotechnology
- ANSI 3423 Animal Genetics

#### Ecology:

Select one of the following:

- BIOL 3034 General Ecology
Entomology: Insect Biology and Ecology, BSAG

NREM 4033 Ecology Of Invasive Species
Chemistry:
CHEM 1225 Chemical Principles II (LN) ¹ 5
or CHEM 1515 Chemistry II (LN)
Select one of the following:
BIOC 3653 Survey of Biochemistry
CHEM 3015 Survey of Organic Chemistry
CHEM 3053 Organic Chemistry I
Additional Natural Resources or Biological Sciences:
Select 12 hours of the following:
BIOC 2344 Chemistry and Applications of Biomolecules
BIOC 3653 Survey of Biochemistry
BIOL 1604 Animal Biology
HORT 3153 Turf Management
HORT 3084 Plant Propagation
NREM 2013 Ecology of Natural Resources
NREM 3063 Natural Resource Biometrics
NREM 3101 Forest Resource Field Studies
NREM 3613 Principles of Rangeland Management
NREM 4213 Forest Biology
PBIO 1404 Plant Biology (LN)
PBIO 4463 Plant Physiology
PLNT 2013 Applied Plant Science
PLNT 3554 Plant Genetics and Biotechnology
PLNT 4113 Advanced Weed Science
PLNT 4123 Plant-Environment Interactions
PLNT 4353 Plant Breeding
PLP 3343 Principles of Plant Pathology
MICR 2123 & MICR 2132 Introduction to Microbiology and Introduction to Microbiology Laboratory
SOIL 4213 Precision Agriculture
SOIL 4363 Environmental Soil Science
SOIL 4893 Soil Chemistry and Environmental Quality
BIOL 1604 Animal Biology
BIOL 3104 Invertebrate Zoology
BIOL 4104 General Parasitology
BIOL 4133 Evolution
Other upper level natural science courses not taken for credit in other categories
Additional Math and Science:
Select 12 hours of the following:
MATH 2103 Business Calculus (A)
MATH 2144 Calculus I (A)
MATH 2153 Calculus II (A)
CHEM 3153 Organic Chemistry II
& CHEM 3112 and Organic Chemistry Laboratory
PHYS 1114 College Physics I (LN)
PHYS 1214 College Physics II (LN)
STAT 2331 SAS Programming
STAT 4013 Statistical Methods I (A)
STAT 4023 Statistical Methods II

STAT 4043 Applied Regression Analysis
BIOL 4133 Evolution

Other requirements not taken for credit in other categories
Foreign Language:
Up to 10 credit hours of upper division foreign language may be substituted for Additional Natural Resources or Biological Sciences

Electives
Select 0 hours or hours to complete required total for degree

Total Hours

¹ College & Departmental requirements that may be used to meet GE requirements.
² If ENGL 3323 Technical Writing is substituted for ENGL 1213 Composition II above; hours in this block are reduced by 3.
³ If used as (S) course above, hours in this block reduced by 3.

Other Requirements
• A minimum of 40 semester credit hours and 100 grade points must be earned in courses numbered 3000 or above.
• A 2.00 GPA or higher in upper-division hours.

Additional State/OSU Requirements
• At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
• Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
• Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
• Degrees that follow this plan must be completed by the end of Summer 2024.