

ENTOMOLOGY: INSECT BIOLOGY AND ECOLOGY, BSAG

Requirements for Students Matriculating in or before Academic Year 2022-2023. 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

| Code | Title | Hours |
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| General Education Requirements | | |
| <i>English Composition</i> | | |
| See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition/) | | |
| ENGL 1113 or ENGL 1313 | Composition I Critical Analysis and Writing I | 3 |
| Select one of the following: | | 3 |
| ENGL 1213 | Composition II | |
| ENGL 1413 | Critical Analysis and Writing II | |
| ENGL 3323 | Technical Writing | |
| <i>American History & Government</i> | | |
| Select one of the following: | | 3 |
| HIST 1103 | Survey of American History | |
| HIST 1483 | American History to 1865 (H) | |
| HIST 1493 | American History Since 1865 (DH) | |
| POLS 1113 | American Government | 3 |
| <i>Analytical & Quantitative Thought (A)</i> | | |
| Select one of the following: | | 3 |
| MATH 1483 | Mathematical Functions and Their Uses (A) | |
| MATH 1513 | College Algebra (A) ¹ | |
| MATH 1613 | Trigonometry (A) ¹ | |
| MATH 2103 | Business Calculus (A) ¹ | |
| <i>Humanities (H)</i> | | |
| Courses designated (H) | | 6 |
| <i>Natural Sciences (N)</i> | | |
| Must include one Laboratory Science (L) course | | |
| CHEM 1314 or CHEM 1215 | Chemistry I (LN) ¹ Chemical Principles I (LN) | 4 |
| Select four hours from the following: | | 4 |
| BIOL 1113 & BIOL 1111 | Introductory Biology (N) and Introductory Biology Laboratory (LN) ¹ | |
| BIOL 1114 | Introductory Biology (LN) ¹ | |
| <i>Social & Behavioral Sciences (S)</i> | | |
| Course designated (S) | | 3 |
| <i>Additional General Education</i> | | |
| Courses designated (A), (H), (N), or (S) | | 8 |
| Hours Subtotal | | 40 |
| Diversity (D) & International Dimension (I) | | |
| May be completed in any part of the degree plan | | |
| Select at least one Diversity (D) course | | |
| Select at least one International Dimension (I) course | | |

| College/Departmental Requirements | | |
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| <i>Agricultural Sciences and Natural Resources</i> | | |
| Ferguson College of Agriculture course cannot be used here and as an (N) | | |
| AG 1011 | First Year Seminar | 1 |
| AGEC 1113 | Introduction to Agricultural Economics (S) | 3 |
| ENTO 2993 | Introduction to Entomology (LN) | 3 |
| STAT 2013 | Elementary Statistics (A) | 3 |
| Select one of the following: | | 3 |
| ANSI 1124 | Introduction to the Animal Sciences | |
| BIOC 2344 | Chemistry and Applications of Biomolecules | |
| ENVR 1113 | Elements of Environmental Science (N) | |
| FDSC 1133 | Fundamentals of Food Science | |
| HORT 1013 | Principles of Horticultural Science (LN) | |
| LA 1013 | Introduction to Landscape Architecture | |
| NREM 1014 | Introduction to Natural History (LN) | |
| NREM 1113 | Elements of Forestry | |
| NREM 2013 | Ecology of Natural Resources | |
| PLNT 1213 | Introduction to Plant and Soil Systems | |
| SOIL 2124 | Fundamentals of Soil Science (N) | |
| <i>Written and Oral Communications</i> | | |
| Select one of the following: | | 3 |
| AGCM 3103 | Written Communications in Agricultural Sciences and Natural Resources | |
| BCOM 3113 | Written Communication | |
| BCOM 3443 | Business Communication for International Students | |
| ENGL 3323 | Technical Writing ² | |
| Select one of the following: ³ | | 3 |
| AGCM 3203 | Oral Communications in Agricultural Sciences & Natural Resources (S) | |
| SPCH 2713 | Introduction to Speech Communication (S) | |
| SPCH 3733 | Elements of Persuasion (S) | |
| Hours Subtotal | | 19 |
| Major Requirements | | |
| With approval from the advisor 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. | | |
| <i>Core Courses</i> | | |
| Select 8 hours of the following: | | 8 |
| ENTO 3044 | Insect Morphology and Physiology | |
| ENTO 4464 | Insect Biology and Classification | |
| <i>Additional Entomology</i> | | |
| ENTO 4800 | Entomology Practicum | 3 |
| Any entomology or plant pathology course not taken as a core course | | 12 |
| <i>Related Courses</i> | | |
| Genetics: | | |
| Select one of the following: | | 3 |
| BIOL 3023 | General Genetics | |
| PLNT 3554 | Plant Genetics and Biotechnology | |

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| ANSI 3423 | Animal Genetics | |
| Ecology: | | |
| Select one of the following: 3 | | |
| BIOL 3034 | General Ecology | |
| 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: 3 | | |
| BIOC 3653 | Survey of Biochemistry | |
| CHEM 3053 | Organic Chemistry I | |
| Select 24 hours of the following: 24 | | |
| BIOC 2344 | Chemistry and Applications of Biomolecules | |
| BIOC 3653 | Survey of Biochemistry | |
| BIOL 1604 | Animal Biology | |
| ENTO 2003 | Insects and Society (N) | |
| ENTO 2223 | Insects in Global Public Health (N) | |
| ENTO 3003 | Livestock Entomology | |
| ENTO 3021 | Postharvest, Structural, and Urban Arthropod Pests | |
| ENTO 3331 | Insect Pests of Agronomic Crops | |
| ENTO 3421 | Horticultural Insects | |
| ENTO 3461 | Insects in Forest Ecosystems | |
| ENTO 3501 | Entomology for Educators | |
| ENTO 3663 | Turfgrass Integrated Pest Management | |
| ENTO 4223 | Ecological Methodology | |
| ENTO 4400 | Special Topics | |
| ENTO 4484 | Aquatic Entomology | |
| ENTO 4733 | Insect Behavior and Chemical Ecology | |
| ENTO 4854 | Medical and Veterinary Entomology | |
| ENTO 4923 | Applications of Biotechnology in Pest Management | |
| 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 | |
| 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 | Introduction to Microbiology | |
| & MICR 2132 | and Introduction to Microbiology Laboratory | |
| SOIL 4213 | Precision Agriculture | |
| SOIL 4363 | Environmental Soil Science | |
| SOIL 4893 | Environmental Soil Chemistry | |

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| BIOL 1604 | Animal Biology | |
| BIOL 3104 | Invertebrate Zoology | |
| BIOL 4104 | General Parasitology | |
| BIOL 4133 | Evolution | |
| 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 | |
| Foreign Language: Up to 10 credit hours of upper division foreign language may be substituted | | |
| Hours Subtotal | | 61 |
| Electives | | |
| Select 0 hours or hours to complete required total for degree | | 0 |
| Total Hours | | 120 |

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College & Departmental requirements that may be used to meet General Education 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 2028.