ENTOMOLOGY: INSECT BIOLOGY AND ECOLOGY, BSAG

Requirements for Students Matriculating in or before Academic Year 2020-2021. 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

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<th>Code</th>
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### General Education Requirements

#### English Composition

See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition/)

ENGL 1113 Composition I 3
or ENGL 1313 Critical Analysis and Writing I

Select one of the following: 3

ENGL 1213 Composition II
ENGL 1413 Critical Analysis and Writing II
ENGL 3323 Technical Writing

#### American History & Government

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

#### Analytical & Quantitative Thought (A)

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

#### Humanities (H)

Courses designated (H) 6
Natural Sciences (N)
Must include one Laboratory Science (L) course

BIOL 1114 Introductory Biology (LN) 1 4
CHEM 1314 Chemistry I (LN) 1 4
or CHEM 1215 Chemical Principles I (LN) 4

#### Social & Behavioral Sciences (S)

Course designated (S) 3
Additional General Education

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

Agricultural Sciences and Natural Resources

Ferguson College of Agriculture course cannot be used here and as an (N)

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<tr>
<td>AG 1011</td>
<td>First Year Seminar</td>
<td>1</td>
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<td>AGEC 1113</td>
<td>Introduction to Agricultural Economics (S)</td>
<td>3</td>
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<td>ENTO 2993</td>
<td>Introduction to Entomology (LN)</td>
<td>3</td>
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<td>STAT 2013</td>
<td>Elementary Statistics (A)</td>
<td>3</td>
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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
FDSC 1133 Fundamentals of Food Science
HORT 1013 Principles of Horticultural Science (LN)
LA 1013 Introduction to Landscape Architecture and Landscape Management

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)

### Written and Oral Communications

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

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.

#### Core Courses

Select 8 hours of the following: 8

ENTO 3044 Insect Morphology and Physiology
ENTO 4464 Insect Biology and Classification

#### Additional Entomology

ENTO 4800 Entomology Practicum 3

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

#### Related Courses

Genetics:

Select one of the following: 3

BIOL 3023 General Genetics
PLNT 3554 Plant Genetics and Biotechnology
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
or CHEM 1515 Chemistry II (LN) 5
Select one of the following: 3
BIOC 3653 Survey of Biochemistry
CHEM 3015 Survey of Organic Chemistry
CHEM 3053 Organic Chemistry I

Select 24 hours of the following: 24
BIOC 2344 Chemistry and Applications of Biomolecules
BIOC 3653 Survey of Biochemistry
BIOC 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 2213 Ecology of Natural Resources
NREM 3063 Natural Resource Biometrics
NREM 3011 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
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

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 2026.