ENTOMOLOGY: BIO-FORENSICS, BSAG

Requirements for Students Matriculating in or before Academic Year 2019-2020. 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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</thead>
<tbody>
<tr>
<td>ENGL 1113</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td></td>
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<tr>
<td>Select one of the following:</td>
<td>3</td>
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<tr>
<td>ENGL 1213</td>
<td>Composition II</td>
<td></td>
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<tr>
<td>ENGL 1413</td>
<td>Critical Analysis and Writing II</td>
<td></td>
</tr>
<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
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</tbody>
</table>

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

Analytical & Quantitative Thought (A)
Select one of the following: 3
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
CHEM 1314  Chemistry I (LN) 1

Social & Behavioral Sciences (S)
Course designated (S) 3

Additional General Education
Courses designated (A), (H), (N), or (S) 1 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
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
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
Core Courses
Select two of the following: 8
ENTO 3044  Insect Morphology and Physiology
ENTO 4464  Insect Biology and Classification
ENTO 4854  Medical and Veterinary Entomology

Additional Core Courses
ENTO 4573  Introduction to Forensic Entomology 3
SOC 4333  Criminology (S) 3
SOC 4743  Criminalistics: Introduction to Forensic Sciences 3

Additional Entomology
ENTO 2143  Global Issues in Agricultural Biosecurity and Forensics 3
ENTO 4800  Entomology Practicum 3

Related Courses
Genetics:
Select one of the following: 3
BIOL 3023  General Genetics
PLNT 3554  Plant Genetics and Biotechnology
ANSI 3423  Animal Genetics

Chemistry:
CHEM 1515  Chemistry II (LN) 5
**Organic Chemistry (5 upper division hours)** 5  
**BIOC 3653** Survey of Biochemistry 3

**Lab Courses:**  
**CHEM 2113** Principles of Analytical Chemistry 3  
**CHEM 2122** Quantitative Analysis Laboratory 2  
**BIOC 3723** Biochemistry and Molecular Biology Laboratory 3

**Additional Biological Courses**  
Select 7 hours of the following: 7

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MICR 2123 &amp; MICR 2132</td>
<td>Introduction to Microbiology and Introduction to Microbiology Laboratory</td>
</tr>
<tr>
<td>MICR 3033</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>MICR 4123</td>
<td>Virology</td>
</tr>
<tr>
<td>MICR 4203</td>
<td>Bioinformatics</td>
</tr>
<tr>
<td>MICR 4233</td>
<td>Advanced Cell and Molecular Biology</td>
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<tr>
<td>MICR 4253</td>
<td>Concepts in Medical Genetics</td>
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<tr>
<td>MICR 4263</td>
<td>Microbial Genetics: from Genes to Genomes</td>
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<tr>
<td>MICR 4323</td>
<td>Biological Energy Transduction</td>
</tr>
<tr>
<td>BIOL 3204</td>
<td>Physiology</td>
</tr>
<tr>
<td>BIOL 4215</td>
<td>Mammalian Physiology</td>
</tr>
<tr>
<td>BIOL 4283</td>
<td>Endocrinology</td>
</tr>
<tr>
<td>BIOL 4293</td>
<td>Behavioral Neuroendocrinology</td>
</tr>
<tr>
<td>BIOL 4303</td>
<td>Organismal Ecotoxicology (OR)</td>
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Upper level entomology, plant pathology, biological sciences, forensic sciences courses not taken for credit in other categories.

**Additional Math and Science**  
Select 7 hours of the following: 7

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<tr>
<td>MATH 2144</td>
<td>Calculus I (A)</td>
</tr>
<tr>
<td>MATH 2153</td>
<td>Calculus II (A)</td>
</tr>
<tr>
<td>PBIO 1404</td>
<td>Plant Biology (LN)</td>
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<tr>
<td>CHEM 3153</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>PHYS 1114</td>
<td>College Physics I (LN)</td>
</tr>
<tr>
<td>PHYS 1214</td>
<td>College Physics II (LN)</td>
</tr>
<tr>
<td>STAT 2331</td>
<td>SAS Programming</td>
</tr>
<tr>
<td>STAT 4013</td>
<td>Statistical Methods I (A)</td>
</tr>
<tr>
<td>STAT 4023</td>
<td>Statistical Methods II</td>
</tr>
<tr>
<td>BIOL 1604</td>
<td>Animal Biology</td>
</tr>
<tr>
<td>BIOL 4133</td>
<td>Evolution (OR)</td>
</tr>
</tbody>
</table>

Other math and science courses 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

**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.

**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 2025.