

# ENTOMOLOGY: PRE-VETERINARY AND PRE-MEDICAL, 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
<b>General Education Requirements</b>		
<i>English Composition</i>		
See Academic Regulation 3.5 ( <a href="http://catalog.okstate.edu/university-academic-regulations/#english-composition/">http://catalog.okstate.edu/university-academic-regulations/#english-composition/</a> )		
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	
<i>American History &amp; 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 &amp; Quantitative Thought (A)</i>		
MATH 1513	College Algebra (A) <sup>1</sup>	3
or MATH 2103	Business Calculus (A)	
<i>Humanities (H)</i>		
Courses designated (H)		6
<i>Natural Sciences (N)</i>		
Must include one Laboratory Science (L) course		
CHEM 1314	Chemistry I (LN) <sup>1</sup>	4
CHEM 1515	Chemistry II (LN) <sup>1</sup>	5
Select four hours from the following:		4
BIOL 1113	Introductory Biology (N)	
& BIOL 1111	and Introductory Biology Laboratory (LN) <sup>1</sup>	
BIOL 1114	Introductory Biology (LN) <sup>1</sup>	
<i>Social &amp; Behavioral Sciences (S)</i>		
SPCH 2713	Introduction to Speech Communication (S) <sup>1</sup>	3
or SPCH 3733	Elements of Persuasion (S)	
<i>General Education</i>		
Any course designated (A), (H), (N), or (S)		3
<b>Hours Subtotal</b>		<b>40</b>

## 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)

AG 1011	First Year Seminar	1
AGEC 1113	Introduction to Agricultural Economics (S)	3
ENTO 2993	Introduction to Entomology (LN)	3
PHYS 1114	College Physics I (LN)	8
& PHYS 1214	and College Physics II (LN)	
STAT 2013	Elementary Statistics (A)	3
or STAT 2023	Elementary Statistics for Business and Economics (A)	

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)	

### 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 <sup>2</sup>	

**Hours Subtotal 24**

## Major Requirements

### Core ENTO Courses

ENTO 3003	Livestock Entomology	3
ENTO 3044	Insect Morphology and Physiology	4
ENTO 4464	Insect Biology and Classification	4
ENTO 4854	Medical and Veterinary Entomology	4
ENTO 4800	Entomology Practicum (3 Hours)	3

### Additional Core Courses

MICR 2123	Introduction to Microbiology	5
& MICR 2132	and Introduction to Microbiology Laboratory	
BIOL 1604	Animal Biology	4
or BIOL 3204	Physiology	

Select one of the following: 5

CHEM 3013	Survey of Organic Chemistry	
& CHEM 3012	and Survey of Organic Chemistry Laboratory	

or

CHEM 3053 & CHEM 3153 & CHEM 3112	Organic Chemistry I and Organic Chemistry II and Organic Chemistry Laboratory	
BIOC 3653	Survey of Biochemistry	3
Select one of the following:		3
ANSI 3423	Animal Genetics (Vet)	
BIOL 3023	General Genetics (Med)	
<i>Related Courses</i>		
Select Alternative 1 or Alternative 2 (p. 2)		18
<b>Hours Subtotal</b>		<b>56</b>
<b>Electives</b>		
Select 0 hours or hours to complete required total for degree		0
<b>Total Hours</b>		<b>120</b>

1

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.

## Alternatives

### Alternative 1

Complete the first 2 semesters in a College of Veterinary Medicine or Medical School

### Alternative 2

Code	Title	Hours
Select 18 hours of the following:		18
ANSI 3543	Principles of Animal Nutrition	
ANSI 4843	Applications of Biotechnology in Animal Science	
BIOL 3023	General Genetics	
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 4733	Insect Behavior and Chemical Ecology	
ENTO 4923	Applications of Biotechnology in Pest Management	
ENTO 4800	Entomology Practicum (3 hours)	
MICR 3033	Cell and Molecular Biology	
MICR 3253	Immunology	
MATH 2144	Calculus I (A)	
MATH 2153	Calculus II (A)	
MATH 2163	Calculus III	
PSYC 1113	Introductory Psychology (S)	
SOC 1113	Introductory Sociology (S)	
BIOL 3114	Vertebrate Zoology	
BIOL 3204	Physiology	
BIOL 3214	Human Anatomy	
BIOL 4104	General Parasitology	
BIOL 4113	Conservation Genetics	

BIOL 4134	Embryology
BIOL 4215	Mammalian Physiology
BIOL 4273	Environmental Physiology
BIOL 4283	Endocrinology
BIOL 4293	Behavioral Neuroendocrinology

## 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.