THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Effective Term: Autumn 2023

Bachelor of Science in Agriculture
Major: Entomology

The entomology major couples a strong background in the biological sciences with in-depth study of insect biology and applied entomology. Students learn insect physiology, behavior, ecology and taxonomy, as well as beekeeping, veterinary and public health entomology, sustainable agriculture, and integrated pest management in agricultural, forest and urban environments. Students in this major will complete a minimum of 121 hours outlined as follows.

General Education Requirements

Requirement	Course Options	Hours
GE Seminar	**GENED 1201**	1
Writing and Information Literacy	***Student Choice***	3
Mathematical & Quantitative Reasoning/Data Analysis	Major requirement: **MATH 1150** * *(or Student Choice – see below)*	5
Literary, Visual and Performing Arts	***Student Choice***	3
Historical & Cultural Studies	***Student Choice***	3
Natural Science	Major requirement: **BIOLOGY 1113** * *(or Student Choice – see below)*	4
Social & Behavioral Sciences	Major requirement: **AEDECON 2001 or ECON 2001.01** * *(or Student Choice – see below)*	3
Race, Ethnic and Gender Diversity	***Student Choice***	3
Theme**: Citizenship for a Diverse & Just World** [a]	***Student Choice***	4-6
Theme: **Student Choice** [a]	***Student Choice***	4-6
GE Reflection	**GENED 4001**	1
	General Education Credit Hours:	**34-38***

***** Indicates a pre/corequisite course for this major that also satisfies this GE category. If a student chooses an alternative course in this GE category, **they must also complete this course.**

B.S. in Agriculture Degree Requirements

Requirement	Course Options	Hours
College & Department Survey	**FAES 1100 (0.5) & ENTMLGY 1100 (0.5)**	1
Oral Expression	**AGRCOMM 3130 or COMM 2110**	3
Additional Science	**BIOLOGY 1114**	4
Internship	**FAES 3191 & ENTMLGY 4191**	1-2
Minor Equiv. [b]	**MATH 1151** Calculus I (5) *-or-* **MATH 1156** Calculus for the Bio. Sci. (5) **EEOB 3410** Ecology (4) **MOLGEN 4500** General Genetics (3)	12
	Credit Hours:	**21-22**

[a] Students complete either a 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If any major-required courses are identified as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours. Theme courses are identified with a ❖ symbol.

[b] Students in this program complete a group of courses called a minor equivalent. Declaring an additional minor is not required.

[c] A limit of 3 credit hours of 4998, 4999, and/or 4999H combined may be applied towards major hours.

Major Supporting Coursework

Course	Title	Hours
CHEM 1210	General Chemistry I	5
CHEM 1220	General Chemistry II	5
	Credit Hours:	**10**

Major Coursework

Course	Title	Hours
ENTMLGY 4000	General Entomology	3
ENTMLGY 4001	General Entomology Laboratory	1
ENTMLGY 5604	Capstone: Problem-Based Studies in Plant Health	2
Select one applied entomology course:		
ENTMLGY 4601	General Insect Pest Management	2
ENTMLGY 4607	Veterinary Entomology	2
ENTMLGY 5110	Ecology and Mgmt. of Pathogens and Insects Affecting Trees in Forest and Urban Environments	2
ENTMLGY 5605	Vector Biology and Vector-Borne Diseases	3
ENTMLGY 5608	Turfgrass Insect and Mite Pests – Identification, Biology, and Management	2
ENTMLGY 5609	Landscape Ornamental Plant Insect and Mite Pests – Identification, Biology, and Management	2
Select a minimum of 11 credit hours (9 credit hours at 3000+ level) of Entomology electives from applied entomology options above and/or the following:		
ENTMLGY 2101	Insects and Human Affairs: Pests, Plagues, Poisons, and Politics	3
ENTMLGY 2200	Beekeeping	3
ENTMLGY 3100	Insect Symbioses	3
ENTMLGY 3330 or 4440H	Social Insects or Honors Social Insects	3
ENTMLGY 4998	Undergraduate Research in Entomology	1-3[c]
ENTMLGY 4999 or 4999H	Research with Distinction or Honors Research with Distinction	1-3[c]
ENTMLGY 5121	Insect Pathology	3
ENTMLGY 5150	Pollinator Biology and Conservation	2
ENTMLGY 5350.01	Taxonomy and Behavior of Aquatic Invertebrates	3
ENTMLGY 5490	Insect Behavior: Mechanisms and Function	3
ENTMLGY 5500	Biological Control of Arthropod Pests	3
ENTMLGY 5600	Principles and Applications of Integrated Pest Management	3
ENTMLGY 5800	Pesticide Science	3
Select an additional 16-17 hours of major electives (options listed on next page)		
	Credit Hours:	**36**

General Education	**34-38**
Degree Requirements & Minor Equiv.	**21-22**
Major Supporting Courses	**10**
Major	**36**
Open Electives	**15-20**
Minimum Total Credit Hours	**121**

THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Effective Term: Autumn 2023

Major Electives

Non-entomology elective course suggestions for students wishing to focus work in one of four tracks: Sustainable Insect Management (1), Insect Ecology and Conservation (2), Insects in Human and Veterinary Medicine (3) and Individualized Insect Studies (4)

Course	Title	Hours	Suggested track
BIOCHEM 4511*	Introduction to Biological Chemistry	4	1,3
CHEM 2310	Introductory Organic Chemistry	4	2,4
CHEM 2510	Organic Chemistry I	4	1,3
CHEM 2520	Organic Chemistry II	4	1,3
CHEM 2540	Organic Chemistry Lab I	2	1,3
CHEM 2550	Organic Chemistry Lab II	2	1,3
ENR 2367	Communicating Environmental and Natural Resources Information	3	1,2,3,4
ENR 3000	Soil Science	3	2,4
ENR 5279	Soil Fertility	3	2,4
HCS 2260	Data Analysis and Interpretation for Decision Making	3	1,2,3,4
HCS 5422**	Biology and Management of Weeds and Invasive Plants	3	2,4
MOLGEN 3436	Introductory Plant Physiology	3	1,3
MOLGEN 4700	Molecular Cell and Developmental Biology	3	1,3
PLNTPTH 3001	General Plant Pathology Lecture	3	2,4
PLNTPTH 3002	General Plant Pathology Lab	2	2,4
PLNTPTH 4597	Contemporary Issues: Pesticides, Genetic Engineering, and the Environment	3	2,4

* Review prerequisites
** Prerequisite of HCS 2201/2204 & 2205, or HCS 2202

Policies and General Requirements for Degree

- A minimum of **121** total credit hours. Remedial coursework (English 1109; EDUTL 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1010; Mathematics 1040, 1050, 1073, 1074, 1075) do not count toward the 121-hour minimum requirement for the BS degree.
- A minimum of 30 semester hours of credit earned through regular course enrollment at this University, and regular course enrollment in the last semester in the College of Food, Agricultural, and Environmental Sciences.
- A cumulative point-hour ratio of at least 2.00 on all coursework completed at The Ohio State University as well as at least a 2.00 in the major.
- If a major-required course or major elective is a GE Theme course, two 3-4 cr courses (no more than one per theme area) is permitted to double count in the GE and major hours. GE Theme courses are indicated with a ❖ symbol.
- Students are encouraged to participate in education abroad opportunities. Consult with your advisor for how education abroad credit applies to your degree or consider the CFAES Global Option.
- Students must complete a minimum of 40 hours in major/major supporting coursework with at least 12 hours taken from the academic unit(s) offering the major at OSU in the baccalaureate program.
- Courses required in the major (including major supporting courses and major electives) may **not** be taken pass/non-pass.
- Coursework taken as open electives may include a maximum of 4 credit hours of physical activity courses (all 1139-1197 courses), and a maximum of 4 credit hours of campus music organizations.
- A college maximum of six hours of individual studies courses (x193) can be applied toward graduation; some majors may have a lower maximum.
- Students of CFAES must complete an internship of 1-2 hours as a requirement for degree. Any additional internship credit hours may count towards major hours (consult with your advisor). A college maximum of six hours of internship credit can be applied toward graduation; some majors may have a lower maximum.
- A maximum of three credits of 3488 can be applied toward graduation although some majors may have a lower maximum. A cumulative point-hour ratio of 2.0 is required to register for 3488 credit.
- Credit hours for 4999 ("with Research Distinction") and 4999H ("with Honors Research Distinction") are repeatable to maximum of six hours.
- **An application for degree must be submitted online at least two semesters prior to the intended graduation term. Application found at: https://students.cfaes.ohio-state.edu/academics/undergraduate/graduation**

Policies and General Requirements for Minors/Minor Equivalent

- The minor/minor equivalent must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e., if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
- A 2.00 cumulative point-hour ratio is required in the minor/minor equivalent with a minimum C- grade for any course to be listed in the minor or minor equivalent (includes transfer credit).
- For programs requiring a minor: minors should be declared by the time students complete 60 hours.
- A student is permitted to count up to 6 credit-hours of transfer and/or EM credit in the minor or minor equivalent.
- Coursework graded Pass/Non-Pass cannot count in the minor. No more than 3 credit-hours of course work graded S/U may count toward the minor. Maximum of 3 credit-hours of xx93 are allowed to count in the minor.

THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

4-Year Course Plan
B.S. in Agriculture
Major: Entomology

This model plan of study is presented as a suggested path to graduate in four years. It is intended to be a useful guide; however, each student is unique and should review the Degree Requirements for their catalog year and work with their advisor to develop an individualized course plan that best fits their personal academic background and goals.

NOTE: This sheet should not be used in isolation. To graduate in a timely manner, students must consult their academic advisor on a regular basis.

Freshman Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Complete Math requirement *-Complete at least one science* *-Complete GE WIL*	FAES 1100	College Survey	.5	CHEM 1220	General Chemistry II	5
	ENTMLGY 1100	Dept Survey	.5	MATH 1151 [a]	Calculus I	5
	GE Math: MATH 1150	Precalculus	5	GE WIL		3
	GE Nat Sci: BIOLOGY 1113	Biological Sciences: Energy Transfer and Development	4	BIOLOGY 1114	Biological Sciences: Form, Function, Diversity, and Ecology	4
	CHEM 1210	General Chemistry I	5			
	GENED 1201	GE Launch Seminar	1			
Hours: 33		**Total:**	**16**		**Total:**	**17**
Sophomore Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Declare minor *-Complete three science courses by the end of this year* *-Begin to consider an internship location*	ENTMLGY 4000	General Entomology	3	GE Theme Choice #1 [b]		3-4
	ENTMLGY 4001	General Entomology Lab	1	Applied Entomology Course	*See options*	2-3
	GE Hist. & Cultural Studies		3	GE R.E. & G. Diversity		3
	GE Lit, Vis and Perf Arts		3	AGRCOMM 3130	Oral Expression	3
	GE SBS: AEDECON 2001	Prin. of Food & Res. Econ.	3	Entomology Elective		3-4
	Open Elective		2			
Hours: 63		**Total:**	**15**		**Total:**	**15**
Junior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Apply to graduate *-Complete internship by end of the summer* *-Half of major hours to be completed by the end of the year*	Entomology Elective		3	ENTMLGY 4191	Internship	2
	MOLGEN 4500	General Genetics	3	FAES 3191	Internship	0
	GE Citizenship #1 [b]		3-4	Entomology Elective		2-3
	EEOB 3410	Ecology	4	Major Elective		3-4
	Major Elective		2-3	Major Elective		3-4
				GE Citizenship #2 [b] (or Open Elective)		3
Hours: 92		**Total:**	**15**		**Total:**	**15**
Senior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Meet graduation requirements *-Meet with a Career Services Advisor*	GE Theme Choice #2 [b] (or Open Elective)		3	Open Elective		3-4
	Major Elective		3-4	ENTMLGY 5604	Capstone: Problem-Based Studies in Plant Health	2
	Major Elective		3-4	Open Elective		3-4
	Entomology Elective		2-3	Major Elective		3-4
	GENED 4001	GE Reflection Seminar	1	Open Elective		3-4
	Open Elective		3			
		Total:	**14**		**Total:**	**15**
					Minimum total credit hours for Bachelor of Science Degree:	**121**

[a] One possible course from approved GE list or major requirement that has multiple options, as outlined in corresponding Degree Requirements document.
[b] Students complete either a 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If any major-required courses are identified as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours. Theme courses are identified with a ❖ symbol.

Degree requirements and course offerings are subject to change. This page was last updated on: 6/7/23

4-Year Completion Checklist

Freshman Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Complete Math requirement*	FAES 1100					
	ENTMLGY 1100					
☐ *Complete at least one science*						
☐ *Complete GE WIL*						
Hours: _____	*Notes:*			*Notes:*		
Sophomore Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Complete three science courses by the end of this year*						
☐ *Begin to consider an internship location*						
Hours: _____	*Notes:*			*Notes:*		
Junior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Apply to graduate*						
☐ *Complete internship by end of the summer*						
☐ *Half of major hours to be completed by the end of the year*						
Hours: _____	*Notes:*			*Notes:*		
Senior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Meet graduation requirements*						
☐ *Meet with a Career Services Advisor*						
Hours: _____	*Notes:*			*Notes:*		
				Total credit hours for Bachelor of Science Degree:		**121**

_____

_____

_____

_____

Degree requirements and course offerings are subject to change. This page was last updated on: 6/7/23