

ENTOMOLOGY, BACHELOR OF SCIENCE

College of Agricultural & Environmental Sciences

The Major Program

The Entomology major is a general biological science program. The curriculum is designed to develop an understanding of fundamental biological concepts by studying insects. Insects offer unique opportunities to study biological systems and are model experimental animals. Many insects are either pests, or beneficial species that have great importance to the economy, environment or public health. Students may focus on specific areas of interest including agricultural entomology; insect systematics & evolution; behavior & ecology; medical entomology; and insect molecular biology, physiology & toxicology.

The Program

Students begin their study in Entomology with selected insect biology courses. After completing these courses, students may enroll in courses in their particular area of interest. The faculty encourages students to do research internships in their laboratories.

Career Alternatives

Entomology graduates find careers in many different areas of applied or basic biology. Graduates have the opportunity to continue in professional graduate programs such as veterinary or human medicine, or get advanced degrees leading to careers in biotechnology, conservation biology, or academic teaching and research. Many graduates have participated in internship programs with the California Department of Food and Agriculture and found careers in insect diagnostic laboratories, conducting insect surveys, and/or developing entomological collections. Other graduates have worked in agriculture in the area of insect pest management. Graduates are prepared for managerial and technical positions with state and federal agencies and in agricultural production and supporting industries. Some Entomology graduates pursue careers in primary, secondary, and college level science education.

Lead Faculty Advisor

S. Siddique, R. Vannette

Academic Advisor

E. Galvan Hack

Advising Center for the major, including peer advising, is located in 150 Hutchison Hall, 530-754-4131. Academic Advisor located in 160 Hutchison Hall; 530-754-7277; ent-advise@ucdavis.edu.

The major requirements below are in addition to meeting University Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/university-degree-requirements/>) & College Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/college-degree-requirements/>); unless otherwise noted. The minimum number of units required for the Entomology Bachelor of Science is 100.

| Code | Title | Units |
|-----------------------------------|--|-------|
| Preparatory Subject Matter | | |
| <i>Biological Science</i> | | |
| BIS 002A | Introduction to Biology: Essentials of Life on Earth | 5 |

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|---|---|-------|
| BIS 002B | Introduction to Biology: Principles of Ecology & Evolution | 5 |
| BIS 002C | Introduction to Biology: Biodiversity & the Tree of Life | 5 |
| <i>Chemistry</i> | | |
| CHE 002A | General Chemistry | 5 |
| CHE 002B | General Chemistry | 5 |
| Choose a series: | | 6-8 |
| CHE 008A & CHE 008B | Organic Chemistry: Brief Course and Organic Chemistry: Brief Course | |
| CHE 118A & CHE 118B | Organic Chemistry for Health & Life Sciences and Organic Chemistry for Health & Life Sciences | |
| <i>Math</i> | | |
| Choose a series: | | 6-8 |
| MAT 016A | (Discontinued for spring 2025) ** | |
| MAT 016B | (Discontinued for spring 2025) ** | |
| OR | | |
| MAT 017A | Calculus for Biology & Medicine | |
| MAT 017B | Calculus for Biology & Medicine | |
| OR | | |
| MAT 021A | Calculus | |
| MAT 021B | Calculus | |
| <i>Physics</i> | | |
| PHY 001A | Principles of Physics | 3 |
| PHY 001B | Principles of Physics | 3 |
| Choose one: | | 3-4 |
| STA 013 or STA 013V or STA 013Y | Elementary Statistics | |
| STA 032 | Gateway to Statistical Data Science | |
| STA 100 | Applied Statistics for Biological Sciences | |
| PLS 120 | Applied Statistics in Agricultural Sciences | |
| Preparatory Subject Matter Subtotal | | 46-51 |
| Depth Subject Matter | | |
| <i>Biological Science</i> | | |
| BIS 101 or BIS 101V | Genes & Gene Expression | 4 |
| <i>Evolution & Ecology</i> | | |
| EVE 100 | Introduction to Evolution | 4 |
| <i>General Entomology</i> | | |
| ENT 100 | General Entomology | 4 |
| ENT 100L | General Entomology Laboratory | 2 |
| ENT 102 | Insect Physiology | 4 |
| Choose one: | | 3-4 |
| MMG 102 or MIC 102 DISCONTINUED FOR FALL 2026 ** | | |
| MMG 162 or MIC 162 DISC | General Virology | |
| PLB/PLP 148 | Introductory Mycology | |
| PLP 120 | Introduction to Plant Pathology | |
| Choose one: | | 4 |

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|---|--|----------------|
| ENT 105 | Insect Ecology | |
| ESP 100 | General Ecology | |
| EVE 101 | Introduction to Ecology | |
| Choose BIS 105 or a series: | | 3-10 |
| BIS 105 | Biomolecules & Metabolism | |
| OR | | |
| BIS 102 & BIS 103 | Structure & Function of Biomolecules and Bioenergetics & Metabolism | |
| or BIS 102V & BIS 103 | Structure & Function of Biomolecules and Bioenergetics & Metabolism | |
| OR | | |
| ABI 102 & ABI 103 | Animal Biochemistry & Metabolism and Animal Biochemistry & Metabolism | |
| Choose at least 3 units: | | 3-7 |
| ENT 103 | Insects Systematics | |
| ENT 104 | Behavioral Ecology of Insects | |
| ENT 107 | California Insect Diversity | |
| ENT 109 | Field Taxonomy & Ecology | |
| NEM 110 | Introduction to Nematology | |
| Depth Subject Matter Subtotal | | 31-43 |
| Restricted Electives ¹ | | |
| Upper division Entomology (ENT) & Nematology (NEM) courses. | | 14 |
| Entomology (ENT) courses. (https://catalog.ucdavis.edu/courses-subject-code/ent/) | | |
| Nematology (NEM) courses. (https://catalog.ucdavis.edu/courses-subject-code/nem/) | | |
| Upper division electives related to student's interest with approval of advisor. Any courses in the life sciences, scientific writing, or statistics will be automatically approved; see advisor for other choices. | | 9 |
| Restricted Electives Subtotal | | 23 |
| Total Units | | 100-117 |

1

Note: No more than a total of 6 units from ENT 192, ENT 197T and ENT 199 may count toward fulfilling depth subject matter or restricted elective units.

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Course(s) discontinued; see your advisor for course options.