

# AGRICULTURAL BIOLOGY (ENTOMOLOGY) - BACHELOR OF SCIENCE IN AGRICULTURE

The agricultural biology course work prepares you for a variety of careers in the biological sciences and agriculture. You will develop your curriculum with an academic advisor to attain your individual goals. Many will pursue advanced degrees in the sciences or prepare for admittance to professional schools (medical, dental, etc.). A diverse program is offered with five separate concentrations that allow you to tailor your program for careers in the commercial sector, such as agricultural consulting, and pest management or for careers with county, state, or federal agencies, such as research technicians, land managers, and extension agents. A minimum of 120 credit hours is required for graduation. Any undergraduate student majoring in Agricultural Biology must earn a grade of C- or higher in core (EPWS prefix) courses to satisfy degree requirements. Students earning a D or F in a core (EPWS prefix) course will be expected to repeat that course until the student earns a grade of C- or higher. The following courses are required for a major in Agricultural Biology.

The Entomology concentration prepares you for graduate degrees in entomology. Emphasis is placed on a broad background in field and laboratory aspects of insect biology and management.

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

| Prefix   | Title  | Credits |
|--|--|---------|
| <b>General Education</b>   |  |         |
| <i>Area I: Communications</i>  |  |         |
| <i>English Composition - Level 1</i>                                   |  |         |
| ENGL 1110G   | Composition I  | 4       |
| <i>English Composition - Level 2</i>                                   |  |         |
| Choose one from the following:   |  | 3       |
| ENGL 2130G   | Advanced Composition                                       |         |
| ENGL 2210G   | Professional and Technical Communication Honors            |         |
| ENGL 2210H   | Professional and Technical Communication Honors            |         |
| ENGL 2215G   | Advanced Technical and Professional Communication          |         |
| <i>Oral Communication</i>  |  |         |
| Choose one from the following:   |  | 3       |
| ACOM 1130G   | Effective Leadership and Communication in Agriculture      |         |
| COMM 1115G   | Introduction to Communication                              |         |
| COMM 1130G   | Public Speaking  |         |
| <i>Area II: Mathematics</i>  |  |         |
| MATH 1220G   | College Algebra  | 3       |
| <i>Area III/IV: Laboratory Sciences and Social/Behavioral Sciences</i> |  |         |
| CHEM 1215G   | General Chemistry I Lecture and Laboratory for STEM Majors | 11      |

|  |  |              |
|--|--|--------------|
| CHEM 1225G   | General Chemistry II Lecture and Laboratory for STEM Majors  |              |
| Area IV: Social/Behavioral Sciences Course (3 credits) <sup>2</sup>  |  |              |
| <i>Area V: Humanities</i> <sup>2</sup>   |  | 3            |
| <i>Area VI: Creative and Fine Arts</i> <sup>2</sup>  |  | 3            |
| <i>General Education Elective</i>  |  |              |
| BIOL 2610G   | Principles of Biology: Biodiversity, Ecology, and Evolution  | 3            |
| <b>Viewing a Wider World</b> <sup>3</sup>  |  | <b>6</b>     |
| One must be from outside the College of ACES   |  |              |
| <b>Departmental/College Requirements</b>   |  |              |
| CHEM 1215G, CHEM 1225G and BIOL 2610G will count towards Departmental/College and General Education Requirements |  |              |
| A ST 311   | Statistical Applications   | 3            |
| AGRO 305   | Principles of Genetics   | 3            |
| BIOL 2110G   | Principles of Biology: Cellular and Molecular Biology  | 3            |
| BIOL 311   | General Microbiology   | 3            |
| BIOL 313   | Structure and Function of Plants   | 3            |
| or BIOL 322  | Zoology  |              |
| EPWS 1110  | Applied Biology  | 3            |
| EPWS 1110L   | Applied Biology Lab  | 1            |
| EPWS 301   | Agricultural Biotechnology   | 3            |
| EPWS 302   | General Entomology   | 4            |
| EPWS 310   | Plant Pathology  | 4            |
| EPWS 311   | Introduction to Weed Science   | 4            |
| EPWS 447   | Seminar  | 1            |
| <i>Concentration Coursework</i>  |  |              |
| MATH 1430G   | Applications of Calculus I   | 3            |
| EPWS 303   | Economic Entomology  | 3            |
| EPWS 325V  | Insects, Humans, and the Environment   | 3            |
| CHEM 2120  | Integrated Organic Chemistry and Biochemistry (CHEM 2120 must be taken in association with 1-cr Lab) | 3            |
| EPWS 455   | Advanced Integrated Pest Management  | 3            |
| EPWS 462   | Parasitology   | 3            |
| EPWS 492   | Diagnosing Plant Disorders   | 3            |
| Select at least three courses from the following:  |  | 7-11         |
| EPWS 314   | Plant Physiology   |              |
| EPWS 451   | Special Topics   |              |
| EPWS 486   | Plant Virology   |              |
| BIOL 301   | Principles of Ecology  |              |
| AGRO 365   | Principles of Crop Production  |              |
| AGRO 471   | Plant Mineral Nutrition  |              |
| SOIL 2110  | Introduction to Soil Science   |              |
| ANSC 370   | Anatomy and Physiology of Farm Animals   |              |
| BIOL 436   | Disease Vector Biology   |              |
| BIOL 462   | Conservation Biology   |              |
| BIOL 469   | Biology of Emerging Infectious Diseases  |              |
| BIOL 480   | Animal Behavior  |              |
| GENE 452   | Applied Bioinformatics   |              |
| ENVS 301   | Principles of Ecology  |              |
| <b>Second Language: (not required)</b>   |  |              |
| <b>Electives, to bring the total credits to 120</b> <sup>4</sup>   |  | <b>10-14</b> |
| <b>Total Credits</b>   |  | <b>116</b>   |

- <sup>1</sup> MATH 1220G College Algebra is required for the degree but students may need to take any prerequisites needed to enter MATH 1220G College Algebra first.
- <sup>2</sup> See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses
- <sup>3</sup> See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses
- <sup>4</sup> Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor