AGRICULTURAL BIOLOGY (APPLIED BIOLOGY) - 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 Applied Biology concentration prepares you for professional advancement including admittance to medical, dental, veterinary and graduate schools. Students interested in the health professions must register with the Health Professional Advisory Committee no later than the sophomore year. Students should check the specific entrance requirements for the professional or graduate school of their choice prior to selecting electives within this option.

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
General Education		
Area I: Communications		
English Composition - Level 1		
ENGL 1110G	Composition I	4
English Composition - Level 2		
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	
Oral Communication		
Choose one from the following:		3
ACOM 1130G	Effective Leadership and Communication in Agriculture	
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
Area II: Mathematics		
MATH 1220G	College Algebra [1]	3
Area III/IV: Laboratory Sciences and Social/Behavioral Sciences		*11*
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	
Area IV: Social/Behavioral Sciences Course (3 credits) [2]		
Area V: Humanities [2]		*3*
Area VI: Creative and Fine Arts [2]		*3*
General Education Elective		
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution	3
Viewing a Wider World [3]		**6**
One must be from outside of the College of ACES		
Departmental/College Requirements		
CHEM 1216G, CHEM 1226G 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
Concentration Coursework		
CHEM 313	Organic Chemistry I	3
CHEM 314	Organic Chemistry II	3
CHEM 315	Organic Chemistry Laboratory	2
MATH 1250G	Trigonometry & Pre-Calculus	4
MATH 1511G	Calculus and Analytic Geometry I	4
PHYS 1230G	Algebra-Based Physics I	3
or PHYS 2230G	General Physics for Life Science I	
PHYS 1230L	Algebra-Based Physics I Lab	1
or PHYS 2230L	Laboratory to General Physics for Life Science I	
Choose 6-8 credits from the following:		6-8
ANSC 370	Anatomy and Physiology of Farm Animals	
BIOL 312	Plant Taxonomy	
BIOL 354	Physiology of Humans	
BIOL 377	Cell Biology	
EPWS 314	Plant Physiology	
EPWS 373	Fungal Biology	
EPWS 486	Plant Virology	
Non- Departmental Requirements (in addition to Gen.Ed/VWW)		
Second Language: (not required)		
Electives, to bring the total credits to 120 [4]		**15-17**
Suggested Electives		
MATH 1521G	Calculus and Analytic Geometry II	
PHYS 1240G	Algebra-Based Physics II	

or PHYS 2240G	General Physics for Life Science II	
BCHE 395	Biochemistry I	3
Total Credits		**120**

[1] 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.

[2] See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses

[3] 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

[4] 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