

# AGRONOMY - BACHELOR OF SCIENCE IN AGRICULTURE

Agronomy is an understanding of the principles of plant and soil science and an application of these principles in the production of crops. Commercial sector careers include positions in agricultural consulting companies, agricultural seed or chemical companies, research and development with commercial companies, as well as farm and/or ranch management. Careers in county, state or federal agencies are in the areas of USDA, Cooperative Extension Service, Natural Resources Conservation Service, Forest Service and Bureau of Land 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 300/3000 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>		10
<i>English Composition - Level 1</i> <sup>1</sup>		
<i>English Composition - Level 2</i>		
Choose from one of the following:		
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> <sup>1</sup>		
<i>Area II: Mathematics</i>		
Choose from one of the following:		3
MATH 1220G	College Algebra	
MATH 1430G	Applications of Calculus I	
<i>Area III/IV: Laboratory Science and Social/Behavioral Sciences</i>		11
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	
<i>Area IV: Social &amp; Behavioral Sciences Course (3 credits)</i> <sup>1</sup>		
<i>Area V: Humanities</i> <sup>1</sup>		3
<i>Area VI: Creative and Fine Arts</i> <sup>1</sup>		3
<i>General Education Elective</i>		
AGRO 1110G	Introduction to Plant Science (Lecture & Lab)	4
or HORT 1115G	Introductory Plant Science	
<b>Viewing A Wider World</b> <sup>2</sup>		6
<b>Departmental/College Requirements</b>		
AEEC 2140	Technology and Communication for Business Management	3
AGRO 305	Principles of Genetics (or GENE 320 AND EPWS 301)	3
AGRO 311	Introduction to Weed Science	4
AGRO 365	Principles of Crop Production	4
AGRO 447	Seminar	1
AGRO 449	Special Problems	1-3

AGRO 462	Plant Breeding	3
AGRO 471	Plant Mineral Nutrition	3
AGRO 483	Advanced Sustainable Crop Production	4
AGRO 492	Diagnosing Plant Disorders	3
EPWS 303	Economic Entomology	3
EPWS 310	Plant Pathology	4
EPWS 314	Plant Physiology	3
SOIL 2110 & 2110L	Introduction to Soil Science and Introduction to Soil Science Laboratory	4
SOIL 312	Soil Management and Fertility	3
SOIL 312 L	Soil Management and Fertility Lab	1
<i>Other Required Courses</i>		
Choose 10 credits from the following:		10
AEEC 2110	Principles of Food and Agribusiness Management	
AEEC 3210	Marketing and Food Agricultural Products	
AEEC 3110V	World Agriculture and Food Problems	
AGRO 2160	Plant Propagation	
AGRO 391	Internship	
BIOL 312	Plant Taxonomy	
EPWS 303	Economic Entomology	
BLAW 316	Legal Environment of Business	
EPWS 301	Agricultural Biotechnology	
EPWS 373	Fungal Biology	
EPWS 455	Advanced Integrated Pest Management	
RGSC 2110	Introduction to Rangeland Management	
SOIL 456	Irrigation and Drainage	
SPAN 1110	Spanish I	
SPAN 1120	Spanish II	
SPAN 2110	Spanish III	
<b>Non- Departmental Requirements (other than Gen.Ed/VWW)</b>		
A ST 311	Statistical Applications	3
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution	3
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology	3
BIOL 313	Structure and Function of Plants	3
CHEM 2120	Integrated Organic Chemistry and Biochemistry (CHEM 2120 must be taken with associated 1-cr CHEM lab)	3
or ANSC 1170	Introduction to Animal Metabolism	
<b>Electives, to bring the total credits to 120</b> <sup>3</sup>		6-8
<b>Total Credits</b>		<b>120</b>

<sup>1</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>2</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>3</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.

## A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1220G College Algebra and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

### First Year

Semester 1		Credits
ENGL 1110G	Composition I <sup>1</sup>	4
MATH 1220G or MATH 1430G	College Algebra <sup>1</sup> or Applications of Calculus I	3
AGRO 1110G or HORT 1115G	Introduction to Plant Science (Lecture & Lab) or Introductory Plant Science	4
Area IV: Social and Behavioral Science Course <sup>2</sup>		3
Students who must be enrolled in 15 credits a semester for Financial Aid purposes will need to enroll in additional elective credits		

Credits		14
Semester 2		
ENGL 2210G	Professional and Technical Communication Honors <sup>1</sup>	3
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors <sup>1</sup>	4
CHEM 1121	General Supplemental Instruction I	1
Area V: Humanities Course <sup>2</sup>		3
AEEC 2140	Technology and Communication for Business Management	3
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution <sup>1</sup>	3
Credits		17

### Second Year

Semester 1		
ACOM 1130G	Effective Leadership and Communication in Agriculture <sup>1</sup>	3
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors <sup>1</sup>	4
SOIL 2110 & 2110L	Introduction to Soil Science and Introduction to Soil Science Laboratory <sup>1</sup>	4
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology	3
Area VI: Creative and Fine Arts Course <sup>2</sup>		3
Credits		17

Semester 2		
AGRO 305	Principles of Genetics <sup>1</sup>	3
BIOL 313	Structure and Function of Plants <sup>1</sup>	3
A ST 311	Statistical Applications <sup>1</sup>	3
CHEM 2120	Integrated Organic Chemistry and Biochemistry (CHEM 2120 must be taken with associated 1-cr CHEM lab)	4
EPWS 303	Economic Entomology (Spring Only) <sup>1</sup>	3
Credits		16

### Third Year

Semester 1		
AGRO 365	Principles of Crop Production (Odd year Fall Only) <sup>1</sup>	4
EPWS 310	Plant Pathology (Fall Only) <sup>1</sup>	4
AGRO 311	Introduction to Weed Science (Fall Only) <sup>1</sup>	4

AGRO Option Course <sup>4</sup>	3
VWW: Viewing a Wider World Course <sup>3</sup>	3

Credits		18
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### Semester 2

SOIL 312	Soil Management and Fertility (Spring Only) <sup>1</sup>	3
SOIL 312 L	Soil Management and Fertility Lab	1
EPWS 314	Plant Physiology (Spring Only) <sup>1</sup>	3
AGRO Option Course <sup>4</sup>		3
AGRO Option Course <sup>4</sup>		3
VWW: Viewing a Wider World Course <sup>3</sup>		3

Credits		16
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### Fourth Year

Semester 1		
AGRO 492	Diagnosing Plant Disorders (Fall Only) <sup>1</sup>	3
AGRO 449	Special Problems	1-3
AGRO 462	Plant Breeding (Fall Only) <sup>1</sup>	3
AGRO 483	Advanced Sustainable Crop Production (Even Fall Only) <sup>1</sup>	4
AGRO Option Course <sup>4</sup>		3

Credits		14-16
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Semester 2		
AGRO 447	Seminar (Spring Only)	1
AGRO 471	Plant Mineral Nutrition (Odd Year Spring Only) <sup>1</sup>	3
Elective Course		3
Elective Course		1
Credits		8

Total Credits		120-122
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<sup>1</sup> These courses have prerequisites and it is the students responsibility to check and fulfill all course prerequisites listed for these courses.

<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> Consult with your departmental advisor.