

SOIL SCIENCE (ENVIRONMENT AND RESOURCE MANAGEMENT) - BACHELOR OF SCIENCE IN AGRICULTURE

A Suggested Plan of Study for Students

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan. This roadmap assumes student placement in MATH 1430G Applications of Calculus I or MATH 1511G Calculus and Analytic Geometry I 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			
Fall			
ENGL 1110G	Composition I	4	Credits 15-16
ACES 1120 & ACES 1210	Freshman Orientation and Financial Fitness for College Students (recommended)	2	
BIOL 2110G or BIOL 2610G	Principles of Biology: Cellular and Molecular Biology ((Lab not required)) or Principles of Biology: Biodiversity, Ecology, and Evolution	3	
MATH course as per MPE		3-4	
Area V: Humanities Course ³		3	
		Credits	15-16
Spring			
GEOL 1110G	Physical Geology	4	Credits 15-17
ACOM 1130G	Effective Leadership and Communication in Agriculture	3	
Area VI: Creative and Fine Arts Course ³		3	
Concentration Category Course: Category 1, 2, 3, or 4 ⁴		4	
Elective Course ¹		1-3	
		Credits	15-17
Second Year			
Fall			
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4	Credits 15
CHEM 1121	General Supplemental Instruction I	1	
Viewing a Wider World ⁵		3	
Concentration Category Course: Categories 1, 2, or 3 ⁴		4	
Choose one from the following: ⁶		3	
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology		Credits 15
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution		
BIOL 311	General Microbiology		
		Credits	15
Spring			
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4	

CHEM 1122	General Supplemental Instruction II	1	
SOIL 2110 & 2110L	Introduction to Soil Science and Introduction to Soil Science Laboratory	4	
ENGL 2210G or ENGL 2215G	Professional and Technical Communication Honors or Advanced Technical and Professional Communication	3	
Elective Course ¹		3-4	
		Credits	15-16

Third Year			
Fall			
SOIL 472	Soil Morphology and Classification	4	Credits 16-17
Viewing a Wider World Course ⁵		3	
Concentration Category Course: Category 1, 2, 3, or 4 ⁴		3	
PHYS 1230G	Algebra-Based Physics I	3	
Choose from one of the following:		3-4	
MATH 1430G	Applications of Calculus I		Credits 16-17
MATH 1511G	Calculus and Analytic Geometry I		

Spring			
SOIL 456	Irrigation and Drainage	3	Credits 15-16
SOIL 476	Soil Microbiology	3	
SOIL 479 or SOIL 424	Environmental Soil Chemistry or Soil Chemistry	3	
Choose from one of the following:		3-4	
CHEM 2120	Integrated Organic Chemistry and Biochemistry (CHEM 2120 must be taken with associated 1-cr CHEM lab)		
ANSC 1170	Introduction to Animal Metabolism		Credits 15-16
CHEM 313	Organic Chemistry I		
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3	

Fourth Year			
Fall			
SOIL 477	Environmental Soil Physics	3	Credits 15
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3	
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3	
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3	
Elective Course ¹		3	
		Credits	15

Spring			
SOIL 312 & 312 L	Soil Management and Fertility and Soil Management and Fertility Lab	4	Credits 14
SOIL 447	Seminar	1	
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3	
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3	
Elective Course ¹		3	
		Credits	14
		Total Credits	120-126

¹ 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.

² The degree requires either MATH 1430G Applications of Calculus I or MATH 1511G Calculus and Analytic Geometry I, students who do not test into these courses will have additional MATH courses to complete in this semester and where "Elective Courses" are listed in the Roadmap.

³ See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses

⁴ Please see your academic advisor for a list of appropriate courses to satisfy the concentration coursework requirements.

⁵ 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

⁶ Students must take two courses from the following, to fulfill degree requirements (lab is not required)

- BIOL 2110G Principles of Biology: Cellular and Molecular Biology
- BIOL 2610G Principles of Biology: Biodiversity, Ecology, and Evolution
- BIOL 311 General Microbiology