

SOIL SCIENCE (SOIL AND WATER SCIENCE) - BACHELOR OF SCIENCE IN AGRICULTURE

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1430G Applications of Calculus 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		Credits
Fall		
ENGL 1110G	Composition I	4
ACES 1120	Freshman Orientation (recommended)	1
ACES 1210	Financial Fitness for College Students (recommended)	1
Area V: Humanities Course ⁵		3
Choose one from the following: ²		3
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology (Lab not required)	
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution (Lab not required)	
Area VI: Creative and Fine Arts Course ⁵		3
Credits		15
Spring		
GEOL 1110G	Physical Geology	4
Concentration Category Course: Category 1, 2, 3, or 4 ⁴		4
Oral Communication course		3
Choose one of the following ²		3-4
MATH 1430G	Applications of Calculus I	
MATH 1511G	Calculus and Analytic Geometry I	
Credits		14-15
Second Year		
Fall		
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
CHEM 1121	General Supplemental Instruction I	1
Viewing a Wider World ⁶		3
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3
Choose one from the following: ²		3
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology (Lab not required)	
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution (Lab not required)	
BIOL 311	General Microbiology (Lab not required)	
Elective Course ¹		2-3
Credits		16-17
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
Viewing a Wider World Course ⁶		3
Area IV: Social/Behavioral Sciences Course ⁵		3
Concentration Category Course: Category 1, 2, 3, or 4 ⁴		3
PHYS 1230G	Algebra-Based Physics I (Lab not required)	3
Credits		16

Spring		
SOIL 456	Irrigation and Drainage	3
SOIL 424	Soil Chemistry	3
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3
CHEM 2120 or ANSC 1170	Integrated Organic Chemistry and Biochemistry (CHEM 2120 must be taken with associated 1-cr CHEM lab) or Introduction to Animal Metabolism	3-4
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3
Credits		15-16

Fourth Year		
Fall		
SOIL 477	Environmental Soil Physics	3
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		3
Credits		15

Spring		
SOIL 447	Seminar	1
SOIL 312 & 312 L	Soil Management and Fertility and Soil Management and Fertility Lab	4
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3
Concentration Category Course: Categories 1, 2, 3, or 4 ⁴		3
SOIL 476	Soil Microbiology	3
Credits		14
Total Credits		120-124

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 Students must take two courses from the following, to fulfill degree requirements:

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

³ 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.

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

⁵ See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses

⁶ 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