

# 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

Fall		Credits
ENGL 1110G	Composition I	4
Elective Course <sup>1</sup>		2
ACES 1120	Freshman Orientation (recommended)	
ACES 1210	Financial Fitness for College Students (recommended)	
Choose one from the following: <sup>2</sup>		3
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology	
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution	
Choose one from the following: <sup>3</sup>		3-4
MATH 1430G	Applications of Calculus I	
MATH 1511G	Calculus and Analytic Geometry I	
Area V: Humanities Course <sup>2</sup>		3
<b>Credits</b>		<b>15-16</b>
Spring		
GEOL 1110G	Physical Geology	4
Concentration Category Course: Category 1 or 2 <sup>4</sup>		4
ACOM 1130G	Effective Leadership and Communication in Agriculture	3
Area VI: Creative and Fine Arts Course <sup>5</sup>		3
Elective Course <sup>1</sup>		3
<b>Credits</b>		<b>17</b>

### 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 <sup>6</sup>		3
Concentration Category Course: Categories 1, 2, 3, or 4 <sup>4</sup>		4
Choose one from the following: <sup>2</sup>		3
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology <sup>4</sup>	
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution	
BIOL 311	General Microbiology	
Elective Course <sup>1</sup>		3
<b>Credits</b>		<b>18</b>
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 & Technical Communication or Advanced Technical and Professional Communication	3
Elective Course <sup>1</sup>		3-4

**Credits 15-16**

### Third Year

Fall		
SOIL 472	Soil Morphology and Classification	4
Viewing a Wider World Course <sup>6</sup>		3
Area IV: Social/Behavioral Sciences Course <sup>5</sup>		3
Concentration Category Course: Category 4 <sup>4</sup>		3
PHYS 1230G	Algebra-Based Physics I	3
<b>Credits</b>		<b>16</b>

### Spring

SOIL 456 or SOIL 476	Irrigation and Drainage or Soil Microbiology	3
SOIL 424	Soil Chemistry	3
CHEM 2115	Survey of Organic Chemistry and Laboratory	4
Concentration Category Course: Categories 1, 2, 3, or 4 <sup>4</sup>		3
Concentration Category Course: Categories 1, 2, 3, or 4 <sup>4</sup>		3
<b>Credits</b>		<b>16</b>

### Fourth Year

Fall		
SOIL 477	Environmental Soil Physics	3
Concentration Category Course: Categories 1, 2, 3, or 4 <sup>4</sup>		3
Concentration Category Course: Categories 1, 2, 3, or 4 <sup>4</sup>		3
Concentration Category Course: Categories 1, 2, 3, or 4 <sup>4</sup>		3
<b>Credits</b>		<b>12</b>
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 <sup>4</sup>		3
Concentration Category Course: Categories 1, 2, 3, or 4 <sup>4</sup>		3
<b>Credits</b>		<b>11</b>
<b>Total Credits</b>		<b>120-122</b>

<sup>1</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.

<sup>2</sup> Students must 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

<sup>3</sup> The degree requires wither 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.

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

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

<sup>6</sup> See the Viewing a Wider World (<http://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses