

# PLANT AND ENVIRONMENTAL SOIL SCIENCE - BS, SOIL AND WATER EMPHASIS

## Program Requirements

### First Year

		Semester Credit Hours
<b>Spring</b>		
AGEC 105	Introduction to Agricultural Economics	3
COMM 203	Public Speaking	3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> ) <sup>1</sup>		3
Government/Political science ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science</a> ) <sup>1</sup>		3
Mathematics ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#mathematics">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#mathematics</a> ) <sup>2</sup>		3
<b>Semester Credit Hours</b>		<b>15</b>

		Semester Credit Hours
<b>Fall</b>		
SCSC 205	Problem Solving in Plant and Soil Systems	3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> ) <sup>1</sup>		3
Communication ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication</a> ) <sup>1</sup>		3
Government/Political science ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science</a> ) <sup>1</sup>		3
Mathematics ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#mathematics">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#mathematics</a> ) <sup>2</sup>		3
<b>Semester Credit Hours</b>		<b>15</b>

### Second Year

		Semester Credit Hours
<b>Spring</b>		
CHEM 222 or CHEM 227	Elements of Organic and Biological Chemistry or Organic Chemistry I	3
HORT 201	Horticultural Science and Practices	3
Select one of the following:		4
BIOL 101	Botany	
BIOL 111	Introductory Biology I	
CHEM 120	Fundamentals of Chemistry II	
GEOL 101 & GEOL 102	Principles of Geology and Principles of Geology Laboratory	
PHYS 201	College Physics	
Select one of the following:		3
ENTO 201	General Entomology	
ENTO 401	Principles of Integrated Pest Management	

PLPA 301	Plant Pathology	
SCSC 446	Weed Management and Ecology	
Creative arts ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a> ) <sup>1</sup>		3

**Semester Credit Hours 16**

<b>Fall</b>		
CHEM 119	Fundamentals of Chemistry I	4
Select one of the following:		3
ENTO 201	General Entomology	
ENTO 401	Principles of Integrated Pest Management	
PLPA 301	Plant Pathology	
SCSC 446	Weed Management and Ecology	
Language, philosophy and culture ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a> ) <sup>1</sup>		3
Directed elective <sup>3</sup>		3
General elective		3

**Semester Credit Hours 16**

### Third Year

<b>Spring</b>		
ECCB 205 or SCSC 444	Fundamentals of Ecology or Forage Ecology and Management	3
SCSC 309	Water in Soils and Plants	4
SCSC 310	Soil Morphology and Interpretations	2
Directed elective <sup>3</sup>		3
General elective		3
<b>Semester Credit Hours</b>		<b>15</b>

<b>Fall</b>		
SCSC 301	Soil Science	4
SCSC 307	Crop Biology and Physiology	4
Select one of the following: <sup>4</sup>		3
RWFM 313	Vegetation Sampling Methods and Designs in Ecosystems	
STAT 201	Elementary Statistical Inference	
STAT 302	Statistical Methods	
General elective		3
<b>Semester Credit Hours</b>		<b>14</b>

### Fourth Year

<b>Spring</b>		
GEOG 390 or ECCB 351	Principles of Geographic Information Systems or Geographic Information Systems for Resource Management	4
SCSC 455	Environmental Soil and Water Science	3
SCSC 458	Watershed, Water and Soil Quality Management	3
SCSC 481	Senior Seminar	2
General elective		3
<b>Semester Credit Hours</b>		<b>15</b>

<b>Fall</b>		
SCSC 405	Soil and Water Microbiology	3
SCSC 406	Soil and Water Microbiology Laboratory	1

SCSC 422	Soil Fertility and Plant Nutrient Management	3
SCSC 432	Soil Fertility and Plant Nutrient Management Laboratory	1
Select one of the following: <sup>5</sup>		3
SCSC 420	Brazilian Agriculture and Food Production Systems	
SCSC 421	International Agricultural Research Centers - Mexico	
SCSC 484	Internship	
SCSC 491	Research	
General elective		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> Graduation requirements include a requirement for 3 hours of International and Cultural Diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) courses and 3 hours of Cultural Discourse (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) courses. A course satisfying a Core category, a college/department requirement, or a free elective can be used to satisfy this requirement. Select in consultation with an academic advisor.

<sup>2</sup> Choose from core curriculum courses with a MATH prefix.

<sup>3</sup> To be selected from SCSC 201 and SCSC 300-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/scsc/>) courses not already required on the degree plan and selected in consultation with an academic advisor.

<sup>4</sup> Statistics course to be selected in consultation with academic advisor.

<sup>5</sup> Students will complete an internship, study abroad or independent research experience.