

# Crop and Soil Science

University of Wisconsin-River Falls  
[www.uwrf.edu](http://www.uwrf.edu)

## Our Goal

- To provide students with the knowledge and skills needed to understand the production of food and fiber.
- To provide students with the communications skills needed to interact with agricultural and environmental professionals.
- To provide a knowledge of crop production and soil science in a sustainable fashion.

## Why Major in Crop and Soil Science

Students major in Crop and Soil Science for many reasons including one or more of the following:

1. They enjoy working with plants and soils in a predominately outdoor environment.
2. They like applying science to practical problems.
3. They enjoy working with farmers, growers, and other professionals locally, nationally, and internationally.
4. They want to play an integral role in environmental decisions related to soil conservation, crop production, land use, water quality, or waste management.
5. They want to contribute to the needs of present and future generations by providing healthy food while maintaining a safe and enjoyable environment.
6. They desire to experience an enjoyable and satisfying quality of life that comes from understanding the growth of plants and being a part of the process that provides the most basic of human needs—food.

## What Do Crop and Soil Scientists Do?

Crop and soil scientists use their natural curiosity and enthusiasm for science to help solve some of the toughest problems facing humanity: producing sufficient and affordable food for an increasing population and doing it in a way that protects and preserves our environment. Crop and soil scientists are also involved in protecting soil and water resources and preventing surface water and groundwater pollution.

Many professional crop and soil scientists work closely with farmers, providing information and recommendations to help solve crop and soil related problems, develop nutrient management and soil conservation plans, and design integrated pest management strategies. In all cases crop and soil scientists strive to make agriculture efficient, environmentally sound, profitable, and sustainable for future generations.

## Faculty and Facilities

There are six faculty in the crop and soil science program within the plant and earth science department who teach core courses and advise students in the major. Courses directly supporting the major are taught by faculty in environmental science, geology, agricultural economics, agricultural engineering, animal science, and biology. Modern and well-equipped laboratories, computer facilities, and two laboratory farms round out an excellent setting for students studying in crop and soil science.

**T**he central focus of crop and soil science is the production of food and fiber and understanding the resources used in that production. Students choose to emphasize either crop science or soil science in their academic program. Crop science is the study of plants and their use as crops to produce food for the human population, feed for our animals, and fiber for our everyday needs.

Soil science is the study of soils and their properties. Knowledge of soils enables us to make wise decisions about using soils in both agricultural and non-agricultural sectors of society and provides a framework for using our soil resources in an economically and environmentally sound fashion.



# CROP SCIENCE OPTION

Department of Plant and Earth Science  
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## Bachelor of Science Degree. Academic Advising Plan.

### Semester 1 (Fall)

ANSC 111	Introduction to Animal Science .....	3
CROP 120	Plants and Society .....	3
	or General Education EC course .....	3
CROP 161	Introduction to Plant Science .....	3
	or AGEN 150 Introduction to Agricultural Engineering .....	3
	or FDSC 112 Introduction to Food Science .....	3
ENGL 100	Academic Reading and Writing (General Education CW) .....	3
MATH 146	College Algebra .....	3
	Total semester credits .....	15

### Semester 2 (Spring)

BIOL 150	General Biology (General Education SL) ....	3
CHEM 121	General Chemistry I .....	5
ENGL 200	Investigating Ideas: Reading, Writing, and the Disciplines .....	3
P ED 108	Health and Fitness for Life (General Education HW) .....	1
	General Education HF course .....	3
	Total semester credits .....	15

### Semester 3 (Fall)

CROP 260	Plant and Seed Identification .....	2
CROP 263	Forage Crop Production .....	3
SOIL 210	Introductory Soil Science .....	3
CHEM 230	General Organic Chemistry .....	3
	General Education SB course .....	3
	Total semester credits .....	14

### Semester 4 (Spring)

AGEC 230	Agricultural Economics I .....	3
AGEN 363	Precision Agricultural Technology .....	3-4
	or ANSC 231; HORT 327, 347, 455; SOIL 350 .....	3-4
CROP 266	Corn and Soybean Production .....	3
SCTA 101	Fundamentals of Oral Communication .....	3
	General Education CS course .....	3
SOIL 311	Soil Fertility .....	4
	Total semester credits .....	16-17

### Semester 5 (Fall)

CROP 257	Genetics .....	3
CROP 345	Weed Control .....	3
BIOL 314	Plant Pathology .....	3
AGBI 251/252	Ag Biochemistry and Lab .....	4
	General Education SB course .....	3
	Total semester credits .....	16

### Semester 6 (Spring)

AGEC 355	Agricultural Marketing and Production .....	3
	or AGECE 360 Farm Management .....	3
	or AGECE 368 Professional Selling .....	3
ANSC 341	Biometrics .....	3
CROP 267	Small Grain and Miscellaneous Crop Production (3) .....	3
	or CROP 268 Grain Grading and Seed Analysis (2) .....	2-3
	or CROP 363 Pasture Management (2) .....	2-3
	or CROP 368 Sustainable Agriculture (3) .....	2-3
	General Education HF course .....	3
	General Education HW course .....	.5
	University D course .....	3
	Total semester credits .....	14.5-15.5

### Semester 7 (Fall)

BIOL 333	Entomology .....	3
CROP 451	Integrated Pest Management .....	3
	General Education HW course .....	.5
	General Education HF course .....	3
	University G course .....	3
	Directed elective courses .....	3-5
	Total semester credits .....	15.5-17.5

### Semester 8 (Spring)

CROP 410	Plant Breeding .....	3
CROP 435	Crop Physiology .....	4
CROP 485	Seminar .....	1
SOIL 440	Soil and Water Conservation .....	4
	General Education MD course .....	3
	Total Semester credits .....	15

## Summary of Crop Science Option Degree Requirements

General Education/University .....	40-46 cr.
Foundation Courses in Agriculture .....	12 cr.
Major Required Courses .....	14 cr.
Option Required Courses .....	43-45 cr.
Directed Electives .....	3-11 cr.
Credits to Degree .....	120 cr.