

# Crop and Soil Science

**University of Wisconsin-River Falls****www.uwrf.edu**

This emphasis within the Crop and Soils major is the study of economically viable production systems that promote land productivity, energy efficiency, environmental stewardship, and rural community viability.

## Our Goals

To provide students with the technical knowledge and skills needed to:

- Produce food, fiber and other agricultural products within the framework of sustainable agriculture systems.
- Market sustainable agricultural products in local, national and international markets; and
- Promote land stewardship and agricultural community viability.

## Why Major in Crop and Soil Science with a Sustainable Agriculture Option?

Students major in sustainable agriculture for many reasons, including one or more of the following:

1. They enjoy working with plants, animals and the soil in an outdoor environment.
2. They want to be directly involved in the production and/or marketing of agricultural products including specialty niche markets, such as farmer markets, community supported agriculture enterprises and organic product outlets.
3. They want to educate the public about sustainable food production systems.
4. They desire to promote rural community development and strengthen opportunities for individuals in alternative production systems.
5. They want to improve the economic viability of farmers throughout the world.
6. They care about and want to protect the environment.

## What do sustainable agriculturists do?

Sustainable agriculturists use their natural curiosity and enthusiasm to solve difficult problems within our current agricultural systems. They help to preserve environmental resources for future generations, build markets and opportunities for rural communities, sustain rural communities, and educate consumers. People interested in sustainable agriculture also help people make "green" choices on products they produce or purchase.

Many sustainable agriculturalists work as producers of value-added crops, such as organic produce, grains and meats. Or they may provide technical support in crop and animal production systems, develop soil and nutrient management plans, control insect pest and diseases with integrated pest management techniques, marketing natural and sustainable food products, improving rural society, and strive to make agriculture efficient, environmentally sound and sustainable for future generations

## Faculty and Facilities

There are five 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 a excellent setting for students studying in crop and soil science.



# SUSTAINABLE AGRICULTURE OPTION

Department of Plant and Earth Science  
324 Agriculture Science Hall  
(715) 425-3345



## Bachelor of Science Degree. Academic Advising Plan.

### Semester 1 (Fall)

|                                       |   |   |
|---------------------------------------|---|---|
| CROP/HORT 161                         | Introduction to Plant Science .....       | 3 |
| ESM 105                               | Introduction to Environmental Studies.... | 3 |
| General Education CW (ENGL 100) ..... | 3   |   |
| General Education M (MATH 146) .....  | 3   |   |
| General Education HF course.....      | 3   |   |
| Total semester credits .....          | 15  |   |

### Semester 2 (Spring)

|                                       |    |  |
|---------------------------------------|----|--|
| General Education CS (CSTA 116).....  | 3  |  |
| General Education CA (ENGL 200) ..... | 3  |  |
| General Education EC (CROP 120).....  | 3  |  |
| General Education SL (CHEM 120) ..... | 6  |  |
| Total semester credits.....           | 15 |  |

### Semester 3 (Fall)

|                                     |                                     |   |
|-------------------------------------|-------------------------------------|---|
| AGEC 230                            | Agricultural Economics I.....       | 3 |
| AGEN 150                            | Agricultural Engineering Technology |   |
| or ANSC 111                         | Introduction to Animal Science..... | 3 |
| SOIL 210                            | Introductory Soil Science.....      | 3 |
| General Education S (BIOL 150)..... | 3                                   |   |
| General Education SB course.....    | 3                                   |   |
| Total semester credits.....         | 15                                  |   |

### Semester 4 (Spring)

|   |  |   |
|---|--|---|
| AGEC 250  | World Food and Population .....  | 3 |
| ESM 220   | Environmental Sustainability: Theories,<br>Issues and Management ..... | 3 |
| General Education SB (SOCI 100) .....             | 3  |   |
| General Education HF .....                        | 3  |   |
| University Requirement (Global Perspectives)..... | 3  |   |
| Total semester credits .....                      | 15   |   |

### Semester 5 (Fall)

|   |                                   |   |
|---|-----------------------------------|---|
| CROP 263  | Forage Crop Production .....      | 3 |
| CROP 266  | Corn and Soybean Production ..... | 3 |
| CROP 451  | Integrated Pest Management.....   | 3 |
| SOIL 311  | Soil Fertility .....              | 4 |
| General Education HW (PE activity course) ..... | .5                                |   |
| General Education HW (PE activity course) ..... | .5                                |   |
| Total semester credits .....                    | 14                                |   |

### Semester 6 (Spring)

|   |       |  |
|---|-------|--|
| General Education SB (SOCI 340) .....                       | 3     |  |
| Directed elective from major requirements (3 courses) ..... | 7-11  |  |
| University Requirement (American Cultural Diversity).....   | 3     |  |
| Total semester credits .....                                | 13-17 |  |

### Summer Term

|   |     |  |
|---|-----|--|
| CROP/HORT/ANSC/FDSC/AGEN 270 Internship | 3-4 |  |
|---|-----|--|

### Semester 7 (Fall)

|   |   |   |
|---|---|---|
| CROP 368  | Sustainable Agriculture .....                           | 3 |
| CROP 486  | Organic Certification Principles and<br>Practices ..... | 3 |
| Directed elective from major requirements (2 courses) ..... | 4-8   |   |
| Elective course .....                                       | 2-4   |   |
| Total semester credits .....                                | 12-18   |   |

### Semester 8 (Spring)

|  |                                  |   |
|--|----------------------------------|---|
| SOIL 440   | Soil and Water Conservation..... | 4 |
| General Education MD (CAFES 492).....                      | 3                                |   |
| General Education HW (P ED 108).....                       | 1                                |   |
| Directed elective from major requirements (1 course) ..... | 2-4                              |   |
| Elective course .....                                      | 2-4                              |   |
| Total Semester credits .....                               | 12-18                            |   |

### Summary of Sustainable Agriculture Option Degree Requirements

|   |           |
|---|-----------|
| General Education .....                 | 42 cr.    |
| University Requirements.....            | 6 cr.     |
| Foundation Courses in Agriculture ..... | 12 cr.    |
| Major Required Courses.....             | 42-45 cr. |
| Electives .....                         | 1-4 cr.   |
| Credits to Degree.....                  | 120 cr.   |