

# Agricultural Engineering Technology

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

**Goals and Objectives** • to combine an understanding of the biological, physical and agricultural sciences with the problem-solving skills of an engineer.

The application of technical knowledge is emphasized rather than the analytical and design aspects stressed in an engineering curriculum. The engineering technologist has an important role in implementing technological knowledge in a changing world.

**Program and/or Curriculum** The curriculum includes courses in basic science that are integrated with plant and earth science, food and animal science, agricultural economics and agricultural engineering. This exposure to a wide range of disciplines provides the foundation of knowledge the student will apply in his or her career. Besides instruction in the physical concepts, courses include laboratory and practicum sessions that develop student critical thinking and problem-solving skills. Students have an opportunity to work with the diagnostic equipment, measurement devices, engineering handbooks and computer software that are used by industry in problem solving. Environmental engineering technology is offered as an option in the agricultural engineering technology major. Students in this option complete additional course work in chemistry and life science along with engineering technology courses.

**Faculty** The agricultural engineering technology department has four faculty members.

**Career Opportunities** The outlook for employment in agricultural engineering and environmental technology continues to be very good. There are more people consuming more food and agricultural products with more preparatory processing than ever before. This leads to a greater need for trained professionals to design environmentally sound production systems. This means more jobs in service, sales, development and application of mechanical systems in agriculture and in protection and management of water, soil and air resources.

Job placement of graduates in agricultural engineering technology has been excellent. Examples of jobs chosen by recent graduates include: agricultural equipment testing, agricultural equipment design, food processing plant maintenance supervisor, food processing equipment technical sales, feed processing plant manager, construction supervisor, county and municipal engineering positions, and engineering firm consultant.

**E**ngineering technology graduates are prepared to work as part of the engineering team to implement and improve existing technology.

The agricultural engineering technology major prepares students to be part of the engineering technology function for governmental agencies, manufacturing, sales and service companies.

The environmental engineering technology option prepares students to solve technical environmental problems. They work to reduce the release of pollutants to the environment, to prevent harmful effects of pollution, to clean up contaminated areas and to design products and production systems that minimize the generation of waste.



# ENVIRONMENTAL ENGINEERING TECHNOLOGY OPTION

Department of Agricultural Engineering Technology  
 164 Agricultural Engineering Annex, Agriculture Science Hall  
 (715) 425-3985



## Bachelor of Science Degree. Academic Advising Plan.

### Semester 1 (Fall)

AGEN 150	Agricultural Engineering Technology.	3
CHEM 121	General Chemistry I.....	5
ENGL 111	Academic Reading and Writing.....	3
MATH 156	Calculus for Business & Social Science	
or MATH 166	Calculus I.....	3 or 4
	Total semester credits .....	14 or 15

### Semester 2 (Spring)

CHEM 112,117	General Chemistry 2 and Lab .....	5
ENGL 112	Persuasive Reading and Writing .....	3
GENG 265	Engineering Graphics .....	3
Environmental	science and management course .....	3
	Total semester credits .....	14

### Semester 3 (Fall)

AGEN 240	Structures.....	3
GENG 235	Surveying .....	3
BIOL 100	Introduction to Biology	
or BIOL 150	General Biology .....	3
Physics and lab	courses .....	5
	Total semester credits .....	14

### Semester 4 (Spring)

CHEM 230	General Organic Chemistry.....	3
GENG 245	Materials Design Requirements.....	3
SOIL 210	Introductory Soil Science .....	3
SCTA 105	Introduction to Theatre and Drama ....	3
Food/animal/plant	science intro course .....	3
	Total semester credits .....	15

### Semester 5 (Fall)

AGEN 350	Applied Electricity .....	3
AGEN 365	Waste management Systems .....	3
BIOL 324	Microbiology .....	4
Agricultural	economics course .....	3
General education	social/behavioral science course....	3
	Total semester credits .....	16

### Semester 6 (Spring)

AGEN 355	Irrigation and Drainage.....	3
AGEN 325	Alternate Energy Systems	
or ESM 360	Applied Hydrogeol./Water Qual. 3 or 4	
GENG 368	CAD Applications.....	3
P ED 108	Health and Fitness for Life .....	1
General education	humanities course .....	3
General elective	course .....	3
	Total semester credits .....	16 or 17

### Semester 7 (Fall)

AGEC 450	Intro to Natural Resource Economics	
or GEOL 445	Hydrogeology .....	3
Food engineering	.....	3
General education	humanities course .....	3
Interdisciplinary	senior capstone course .....	2
Physical education	activity course(s).....	1
General elective	course .....	3
	Total semester credits .....	15

### Semester 8 (Spring)

AGEN 425	Environmental Engineering Tech .....	4
AGEN 451	Ag Instrumentation & Electronics.....	3
GENG 450	Engineering Project Management .....	3
General education	humanities course .....	3
General elective	course .....	3
	Total semester credits.....	16

## Summary of Degree Requirements

General Education .....	41-43 cr.
Core .....	24 cr.
Option Requirements.....	31-30 cr.
Required Supporting Courses .....	4-14 cr.
Credits to Degree.....	120 cr.