

# BIOLOGICAL SYSTEMS ENGINEERING: NATURAL RESOURCES AND ENVIRONMENTAL ENGINEERING

## REQUIREMENTS

### REQUIREMENTS

Code	Title	Credits
<b>Major Requirements</b>		
Common Requirements		53
Specialization Technical Electives		43
Capstone		5
<b>Total Credits</b>		<b>101</b>

### COMMON REQUIREMENTS

See Major Requirements (<http://guide.wisc.edu/undergraduate/agricultural-life-sciences/biological-systems-engineering/biological-systems-engineering-bs/#requirementstext>).

### NATURAL RESOURCES AND ENVIRONMENT SPECIALIZATION

This is a named option that will appear on the student's transcript upon completion.

Code	Title	Credits
BSE/CIV ENGR/ SOIL SCI 372	On-Site Waste Water Treatment and Dispersal	2
BSE 472	Sediment and Bio-Nutrient Engineering and Management	3
BSE 473	Water Management Systems	3
BSE 571	Small Watershed Engineering	3
M E 361	Thermodynamics	3
CIV ENGR 310 or M E 363	Fluid Mechanics Fluid Dynamics	3
BSE 301	Land Information Management	3
E M A 303 or M E 306	Mechanics of Materials Mechanics of Materials	3
ENVIR ST/GEOG/ SOIL SCI 230 or SOIL SCI 301	Soil: Ecosystem and Resource General Soil Science	3
Complete one of the following BSE breadth courses:		3
BSE 364	Engineering Properties of Food and Biological Materials	
BSE/ ENVIR ST 367	Renewable Energy Systems	
BSE 405	Artificial Intelligence in Agriculture	

BSE 460	Biorefining: Energy and Products from Renewable Resources
BSE 461	Food and Bioprocessing Operations
BSE 464	Heat and Mass Transfer in Biological Systems
BSE/M E 475	Engineering Principles of Agricultural Machinery
BSE/M E 476	Engineering Principles of Off-Road Vehicles

**Total Credits** **29**

### TECHNICAL ELECTIVES

See Major Requirements (<http://guide.wisc.edu/undergraduate/agricultural-life-sciences/biological-systems-engineering/biological-systems-engineering-bs/#requirementstext>).

### CAPSTONE

See Major Requirements (<http://guide.wisc.edu/undergraduate/agricultural-life-sciences/biological-systems-engineering/biological-systems-engineering-bs/#requirementstext>).