

What is it?

Machinery Systems Engineering is one of the four specialization options within the Biological Systems Engineering major. It focuses on the equipment that produces and distributes the world's biological materials.

In the Industry

Over the past 50 years, machines have improved production efficiency in all aspects of life. Machinery Systems Engineers have played a key role in moving society from the highly manual culture of the early 20th century to the highly technical culture of the late 20th century.

Even with these advances, the job of the machinery systems engineer is not complete. Concern for our natural environment and worker safety, and the constant desire to reduce costs and energy consumption while improving production efficiency, will continue to challenge machinery systems



Biological Systems Engineering

UNIVERSITY OF WISCONSIN-MADISON

115 Agricultural
Engineering Building
460 Henry Mall
Madison, WI 53706

Email: bse@wisc.edu
Phone: (608) 262-3310
bse.wisc.edu



Engineering
Technology
Accreditation
Commission



Biological Systems Engineering

UNIVERSITY OF WISCONSIN-MADISON



Machinery Systems Engineering Option



Machinery Systems Engineering

Machinery Systems Engineering is what many students initially perceive Biological Systems Engineering to be. These engineers are trained to design machines for production agriculture and construction. Concepts covered in this field include power transmission, traction, hydraulic power, and crop handling, such as planting and harvesting.

Our program is accredited by the Engineering Accreditation Commission of **ABET**.

Where might I work?

Examples of positions that recent Machinery Systems Engineering graduates have taken include:

- Analysis Engineer at Kuhn North America
- Associate Engineer at Caterpillar
- Design Engineer at AGCO Corporation
- Design Engineer at John Deere Ottumwa Works
- Development Engineer at Wacker Neuson
- Innovations Engineer at Case New Holland



What is a typical starting salary?

- Typical starting salaries vary from \$55,000 to \$70,000.

More detailed information can be found on our website: bse.wisc.edu

Degree Requirements

Total Credits

- The minimum requirement for a Bachelor of Science degree is 125 Credits

General Studies: 20-23 Credits

- Social Sciences
- Humanities
- Ethnic Studies
- Economics
- International Studies
- Oral and Written Communication

Basic Sciences: 37-40 Credits

- Biological Science
- Mathematics
- Chemistry
- Physics

Engineering Sciences: 21 Credits

- Fluids
- Statics and Mechanics of Materials
- Thermodynamics
- Engineering Economics
- Material Properties
- Instrumentation

Machinery Systems Engineering Option: 44-50 Credits

- Engineering Principles of Off-Highway Vehicles
- Engineering Principles of Ag-Machinery
- Machine Element Design
- Manufacturing Processes
- Design Capstone Experience
- Technical Electives