



Mechanized Systems Management

When you study Mechanized Systems Management (MSYM), you are preparing for a career associated with the management of people, systems, equipment, and natural resources used to produce and process food, feed, fuel, and fiber. Graduates understand and apply the principles of physical and biological sciences, mathematics, and management to increase effectiveness and efficiency of machines in the production, processing, handling, and utilization of agricultural, natural resource, food, and biological commodities.



The MSYM curriculum has the flexibility to permit students to select professional elective courses. Areas such as agronomy, animal science, agricultural economics, agricultural education, computer science, engineering mechanics, food science, mechanized systems management, management, marketing, natural resources, and biological sciences can be selected for in-depth study. Post-graduate study in MSYM is also available at the University of Nebraska-Lincoln.

Possible Career Areas

- Machine Testing
- Plant Operation Supervision
- Irrigation
- Equipment Dealership
- Education
- Quality Control
- Extension
- Production Agriculture
- Natural Resources Management



Professionals in Mechanized Systems Management are highly sought after by a wide variety of companies. Our graduates have found positions with such companies as Altec Industries, Archer Daniels Midland (ADM), Cargill, Farmland Foods, Hormel, Irrigation and Natural Resources Districts, John Deere, and Orthman Manufacturing.

Each student studies a core curriculum consisting of 24 credit hours of major requirements, 21 hours of science and math, and 9 credit hours of free electives. In addition, you may choose one of four options for specialization (see back of sheet).



Students are expected to work hard, maintain a minimum cumulative grade point average (gpa) of 2.0 (4.0 scale), and have an interest in developing systems-based, problem-solving skills. Though not required, internships and co-operative work experiences are encouraged. There are several student clubs with professional affiliations for participation. An excellent faculty-to- student ratio, a faculty recognized for their teaching and advising skills, all combine for a quality education in the Department of Biological Systems Engineering.

To schedule a visit or receive more information about Mechanized Systems Management, contact:

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Program Option Areas

Production

This unique combination of selected courses in animal, crop, soil, and physical sciences, as well as mechanized systems management, prepares you to be successful in production agriculture and related careers. This option is for the student interested in the integration of mechanization and natural resources for production agriculture. You will be prepared to apply principles of mechanization and management in farming and ranching, in service and consulting, or preparation for teaching.

Technical

If you like figuring out how machines work, making them efficient, and testing the results, this is the specialization for you. You'll be prepared for employment in the fields of equipment test technician, service manager or production supervisor of mechanized systems, regional service representative, or associate for agricultural research and extension. Students apply additional mathematics and physical sciences to resolve problems in engineered systems.

Processing Operations

There are many aspects and stages involved in taking a raw ingredient to a finished product: food, fiber, or fuel. This option combines the principles of engineered systems and management of those systems with a focus in business, agriculture, and mechanization.

Business

Gain a strong background in the principles of marketing engineered systems with emphasis on mechanization, management, marketing, law, and finance in agriculture related fields. Career opportunities range from operations manager for grain elevators to agricultural representatives for financial institutions or sales/tech representatives for agricultural machinery manufacturers.



The University of Nebraska-Lincoln is an equal opportunity educator and employer with a comprehensive plan for diversity.

Curriculum*

First Year

Semester 1

AGRI 103 Food, Ag and Nat Res Systems
MSYM 109/109L Physical Principles in Agr
MATH 102 Trigonometry
MSYM 162 Equipment Systems Management
SOIL 153 Intro to Soil Resources

Total Credit Hours: 16

Semester 2

MSYM 245 Electrical Service Systems
CASNR Life Science Elective
AECN 141 or **ECON 212** Microeconomics
Elective Written Communication
ACE Elective General Education

Total Credit Hours: 16

Second Year

Semester 3

CHEM 109 General Chemistry
ECON 211 Principles of Macroeconomics
Elective Professional Communication
BSEN 130 Computer Aided Design
Elective Personal Development

Total Credit Hours: 15

Semester 4

MSYM 312 Engine Power Systems
STAT 218 Statistics
BSEN 206 Engineering Economics
Option Requirements

Total Credit Hours: 15

Third Year

Semester 5

MSYM 354 Soil Conservation & Watershed Management
Option Requirements
ACE Elective General Education
Elective Natural Science

Total Credit Hours: 15

Semester 6

MSYM 364 Ag Product Processing & Handling
ACE Elective General Education
Option Requirements

Total Credit Hours: 15

Fourth Year

Semester 7

MSYM 416 Sensors & Controls for Ag Industries
Personal Development Elective
Option Requirements

Total Credit Hours: 15

Semester 8

MSYM 462 Equipment Systems (Capstone)
Personal Development Elective
Option Requirements

Total Credit Hours: 13

120 Credit Hours

Degree awarded:

B. S. in Mechanized Systems Management,
 College of Agricultural Sciences and Natural Resources

*Assuming no advanced college credit or summer school