

AGRICULTURAL ENGINEERING

Transfer Program with UNL

Agricultural engineers are needed in many different areas. They attempt to solve agricultural problems concerning power supplies, efficiency of machinery, use of structures and facilities, water and environmental issues, and the storage and processing of agricultural products. The Agricultural Engineering program at Wayne State is a guided pathway with the University of Nebraska-Lincoln College of Engineering. You will complete your first years of coursework at Wayne State, then transfer to UNL's College of Engineering in Lincoln, Neb., to complete your B.S. in Agricultural Engineering. In the Agricultural Engineering program, you'll have the opportunity to study machine components and equipment, test agricultural machinery to ensure safety and performance, and provide leadership on environmental concerns. While at the University of Nebraska, you can choose from one of three focus areas, including machine design engineering, test engineering, and natural resources and irrigation engineering. Wherever your passion lies, you'll be well-prepared for a career in agricultural engineering.

fast facts

Credit hours: Up to 73 at Wayne State College; 66 at the University of Nebraska-Lincoln

Program details: This is a joint program between Wayne State College and University of Nebraska-Lincoln College of Engineering. You will complete your first years of coursework at Wayne State, then transfer to UNL to complete your B.S. in Agricultural Engineering.

Department: Physical Sciences and Mathematics

School: Science, Health, and Criminal Justice

focus on results

Skills Learned

- Design equipment, systems, structures
- Test equipment to ensure safety
- Oversee construction and production operations
- Mathematics and statistics
- Physical science
- Computer-based measurement and analysis tools
- Organizational, listening, communication, and interpersonal skills
- Lead and work effectively in teams

Possible Careers

- Process/project engineer
- Machine testing
- Consulting
- Environmental remediation
- Product management
- Equipment design
- Natural resources management
- Research
- Irrigation

Types of Employers

- Engineering firms
- Tech companies
- Government/federal agencies
- Manufacturing companies
- Product development companies
- Processing companies
- Research lab

outside the classroom

Activities / Opportunities

- Conduct research projects
- Conferences and presentations
- Peer mentoring and tutoring
- Service-Learning
- Study Abroad

Clubs / Organizations

- Biology Club
- Wildlife Society



Visit www.wsc.edu/clubs to learn more about clubs and organizations on campus.

The following courses are required for the program of study described on this sheet. Every effort is made to ensure this information is current, but please be aware that some content may have changed. To develop a plan for registering and taking these courses, please consult the current academic catalog and your advisor.

Program courses

The following courses, which include General Education courses, can be taken at Wayne State prior to transferring to the University of Nebraska.

Business and Technology Courses

ITE 219 Mechanical Engineering and Drafting.....	3
Select one of the following.....	3
ECO 202 Principles of Macroeconomics (3)	
ECO 203 Principles of Microeconomics (3)	

Humanities Courses

ENG 102 Composition Skills.....	3
ENG 200 Expository Writing.....	3
Select one of the following.....	3
CNA 201 Small Group Communication (3)	
CNA 210 Interpersonal Communication (3)	
Select one of the following.....	3
ART 110 Drawing I (3)	
ART 244 Art History I (3)	
ART 245 Art History II (3)	
CNA 101 Intro to Theatre (3)	
ENG 202 Poetry Workshop (3)	
ENG 203 Fiction Workshop (3)	

Math Courses

MAT 140 Calculus I	5
MAT 240 Calculus II.....	5
MAT 250 Differential Equations	3
MAT 340 Calculus III	5

Natural Science Courses

BIO 110 Biology Concepts.....	4
CHE 106 General Chemistry I.....	4
CHE 107 General Chemistry II	4
PHY 115 Professionalism in Science and Engineering	2
PHY 214 Applied Statics.....	3
PHY 215 Applied Dynamics	3
PHY 301 University Physics I	4
PHY 302 University Physics II.....	4
PHY 321 University Physics I Lab.....	1
PHY 322 University Physics II Lab.....	1
PHY 345 Thermodynamics	3

Social Science Courses

Select one of the following.....	3
GEO 120 World Regional Geography (3)	
GEO 300 Human Geography (3)	
HIS 120 World History (3)	
HIS 170 World Civilization I (3)	
HIS 171 World Civilization II (3)	
PHI 105 Ethics and Values (3)	
POS 110 Intro to World Politics (3)	
SOC 110 Intro to Anthropology (3)	
SOC 220 Social Problems (3)	
SOC 415 The Family (3)	
Select one of the following.....	3
HIS 280 America, 15,000 B.C. to 1845 (3)	
HIS 281 America, 1845 to 1945 (3)	

pre-engineering faculty



Visit www.wsc.edu/physical-sciences-mathematics-department to learn more about the Department Physical Sciences and Mathematics.

Al Mitchell, Ph.D.
Department Chair
Carhart Science 107B
402-375-7334
almitch1@wsc.edu

Adam Davis, Ph.D.
Todd Young, Ph.D.

