

Students in the Precision Agriculture program will develop technical skills and learn to interpret, analyze, and utilize data gathered from precision agriculture technologies to improve production. Graduates will be skilled and competent to work as technicians and producers in a rapidly changing industry that is concerned with maximizing yield potential through resource efficient practices. A key component of this program is to deepen students' understanding of the intricacies that exist between agriculture and our natural resources, especially water. Upon completion of this program, students will be able to:

- Demonstrate fundamental knowledge of agronomic principles that guide effective decision-making in soil, plant and water management.
- Discuss and utilize multiple agriculture GIS programs in a precision agriculture environment.
- Apply principles of data-based decision making to improve agricultural operations and outcomes.
- Demonstrate knowledge and skills in the proper collection of data with careful attention to ensuring data accuracy.
- Identify and explain guidance systems, data collection tools, and variable rate application systems and how they work with each other.
- Demonstrate proper calibration methods and discuss the theory behind calibrations.

## Required Program of Study for Associate of Applied Science Degree (2 years)

### FRESHMAN YEAR

First Semester	
Course	Credits
AGRI 1030 Introduction to Soil Science.....	3
AGRI 1040 Introduction to Soil Science Lab .....	1
ENGL 1050 Workplace Communication.....	3
AGRI 1520 Introduction to Ag Electronics & Hydraulics.....	3
AGRI 1525 Introduction to Ag Electronics & Hydraulics Lab..	1
AGRI 1530 Introduction to Water Resources.....	3
AGRI 1105 Issues in Agriculture I** .....	1
	15

Second Semester	
Course	Credits
AGRI 1005 Introduction to Agriculture Technology.....	3
AGRI 1500 Microcomputer Applications in Agriculture.....	3
AGRI 1131 Plant Science .....	3
AGRI 1132 Plant Science Lab .....	1
AGRI 1410 Introduction to the Economics of Agriculture*.....	3
MATH 2170 Applied Statistics.....	3
	16

Summer	
Course	Credits
AGRI 2020 Crops and Irrigation .....	3
AGRI 2030 Crops and Irrigation Lab .....	1
or AGRI 2040 Livestock Production I.....	3
AGRI 2050 Livestock Production I Lab.....	1
or AGRI 1300 Cooperative Internship I .....	6
	4-6

### SOPHOMORE YEAR

First Semester	
Course	Credits
AGRI 1540 Precision Irrigation Management .....	3
AGRI 2200 Advanced Fertilizers .....	2
AGRI 2500 Data Collection Methodologies.....	3
AGRI 2510 Ag GIS Fundamentals .....	3
AGRI 2015 Farm and Ranch Management .....	4
Agriculture Elective or Science Course.....	2-3
	17-18

Second Semester	
Course	Credits
AGRI 2005 Precision Agriculture Theory.....	3
AGRI 2520 Ag GPS Applications .....	3
AGRI 2525 Ag GPS Applications Lab.....	1
AGRI 2530 Precision Hardware.....	3
AGRI 2535 Precision Hardware Lab.....	1
AGRI 1420 Interpersonal Skills*.....	3
Agriculture Elective or Science Course.....	2-3
AGRI 2890 Agriculture Capstone Experience .....	1
	17-18

#### Additional Requirement:

AGRI 1025 Farm Experience Lab.....0.5  
See your advisor to identify which semester is best for your individualized interests.

**Total Credit Hours** **69.5-73.5**

\* Course fulfills a general education requirement for Northeast Community College.

NOTE: See General Education Requirements.

Agriculture students are encouraged to consult their advisor in the agriculture department to identify the best courses to fulfill agriculture or science elective requirements. The Northeast Community College agriculture program has articulation agreements with the University of Nebraska-Lincoln, Wayne State College, South Dakota State University, and Northwest Missouri State. If interested in more information, consult your advisor.

\*\*AGRI 1120 Food Agriculture Natural Resource Systems can be substituted for AGRI 1105 Issues in Agriculture I and AGRI 1115 Issues in Agriculture II.